TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 550-86694-2
Client Project/Site: Four Corners CCR

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

Attn: Doug Lavarnway

Authorized for release by:
8/31/2017 5:35:26 PM

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

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D5	Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample.

Metals

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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: 550-86694-2

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-86694-2

Comments
No additional comments.

Receipt
The samples were received on 7/25/2017 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.8º C, 0.9º C, 2.3º C and 2.5º C.

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

Metals
Method(s) 200.7 Rev 4.4: The following samples was diluted due to the nature of the sample matrix: FC-CCR-MW49A-72217 (550-86694-2), FC-CCR-MW66-72117 (550-86694-10), FC-CCR-MW67-72117 (550-86694-11), FC-CCR-MW68-72117 (550-86694-12), FC-CCR-MW69-72117 (550-86694-13), FC-CCR-MW70-72117 (550-86694-14), FC-CCR-MW71-72117 (550-86694-15), FC-CCR-MW72-72117 (550-86694-16) and FC-CCR-FD02-72217 (550-86694-18). Elevated reporting limits (RLs) are provided.

Method(s) 200.8 LL: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: FC-CCR-MW7-72217 (550-86694-1[MS]), FC-CCR-MW7-72217 (550-86694-1[MSD]), FC-CCR-MW49A-72217 (550-86694-2), FC-CCR-MW60-72217 (550-86694-3), FC-CCR-MW61-72217 (550-86694-4), FC-CCR-MW62-72117 (550-86694-5), FC-CCR-MW63-72117 (550-86694-6), FC-CCR-MW64-72117 (550-86694-7), FC-CCR-MW65-72117 (550-86694-8), FC-CCR-FD01-72117 (550-86694-9), FC-CCR-MW66-72117 (550-86694-10), FC-CCR-MW67-72117 (550-86694-11), FC-CCR-MW68-72117 (550-86694-12), FC-CCR-MW69-72117 (550-86694-13), FC-CCR-MW70-72117 (550-86694-14), FC-CCR-MW71-72117 (550-86694-15), FC-CCR-MW72-72117 (550-86694-16), FC-CCR-MW73-72217 (550-86694-17), FC-CCR-FD02-72217 (550-86694-18), FC-CCR-MW74-72217 (550-86694-19) and FC-CCR-MW75-72217 (550-86694-20).

Method(s) 200.8 LL: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: FC-CCR-MW49A-72217 (550-86694-2), FC-CCR-MW60-72217 (550-86694-3), FC-CCR-MW61-72217 (550-86694-4), FC-CCR-MW62-72117 (550-86694-5), FC-CCR-MW63-72117 (550-86694-6), FC-CCR-MW64-72117 (550-86694-7), FC-CCR-MW65-72117 (550-86694-8), FC-CCR-FD01-72117 (550-86694-9), FC-CCR-MW66-72117 (550-86694-10), FC-CCR-MW67-72117 (550-86694-11), FC-CCR-MW68-72117 (550-86694-12), FC-CCR-MW69-72117 (550-86694-13), FC-CCR-MW70-72117 (550-86694-14), FC-CCR-MW71-72117 (550-86694-15), FC-CCR-MW72-72117 (550-86694-16), FC-CCR-MW73-72217 (550-86694-17), FC-CCR-FD02-72217 (550-86694-18), FC-CCR-MW74-72217 (550-86694-19) and FC-CCR-MW75-72217 (550-86694-20).

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: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-86694-1	FC-CCR-MW7-72217	Water	07/22/17 15:46	07/25/17 13:00
550-86694-2	FC-CCR-MW49A-72217	Water	07/22/17 16:35	07/25/17 13:00
550-86694-3	FC-CCR-MW60-72217	Water	07/22/17 14:37	07/25/17 13:00
550-86694-4	FC-CCR-MW61-72217	Water	07/22/17 13:50	07/25/17 13:00
550-86694-5	FC-CCR-MW62-72117	Water	07/21/17 11:49	07/25/17 13:00
550-86694-6	FC-CCR-MW63-72117	Water	07/21/17 11:05	07/25/17 13:00
550-86694-7	FC-CCR-MW64-72117	Water	07/21/17 10:32	07/25/17 13:00
550-86694-8	FC-CCR-MW65-72117	Water	07/21/17 09:42	07/25/17 13:00
550-86694-9	FC-CCR-FD01-72117	Water	07/21/17 09:42	07/25/17 13:00
550-86694-10	FC-CCR-MW66-72117	Water	07/21/17 12:26	07/25/17 13:00
550-86694-11	FC-CCR-MW67-72117	Water	07/21/17 14:46	07/25/17 13:00
550-86694-12	FC-CCR-MW68-72117	Water	07/21/17 15:14	07/25/17 13:00
550-86694-13	FC-CCR-MW69-72117	Water	07/21/17 14:05	07/25/17 13:00
550-86694-14	FC-CCR-MW70-72117	Water	07/21/17 13:16	07/25/17 13:00
550-86694-15	FC-CCR-MW71-72117	Water	07/21/17 16:09	07/25/17 13:00
550-86694-16	FC-CCR-MW72-72117	Water	07/21/17 16:47	07/25/17 13:00
550-86694-17	FC-CCR-MW73-72217	Water	07/22/17 11:36	07/25/17 13:00
550-86694-18	FC-CCR-FD02-72217	Water	07/22/17 11:36	07/25/17 13:00
550-86694-19	FC-CCR-MW74-72217	Water	07/22/17 12:47	07/25/17 13:00
550-86694-20	FC-CCR-MW75-72217	Water	07/22/17 14:27	07/25/17 13:00

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW7-72217 — Lab Sample ID: 550-86694-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.89		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.014	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0031	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.011	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW49A-72217 — Lab Sample ID: 550-86694-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium - DL	1.1	D1	0.80	mg/L	4		200.7 Rev 4.4	Total/NA
Barium	0.021	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.025	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Thallium	0.0013	D1	0.0010	mg/L	10		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW60-72217 — Lab Sample ID: 550-86694-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	7.0	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.82		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.016	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.24	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.15	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW61-72217 — Lab Sample ID: 550-86694-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.3		0.40	mg/L	1		300.0	Total/NA
Lithium	0.38		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.013	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00082	D1	0.00040	mg/L	4		200.8 LL	Total/NA
Cobalt	0.013	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.070	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW62-72117 — Lab Sample ID: 550-86694-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.5		0.40	mg/L	1		300.0	Total/NA
Barium	0.023	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0044	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0029	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW63-72117 — Lab Sample ID: 550-86694-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Barium	0.018	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0057	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0023	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW64-72117 — Lab Sample ID: 550-86694-7

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW64-72117 (Continued) — Lab Sample ID: 550-86694-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.5		0.40	mg/L	1		300.0	Total/NA
Barium	0.024	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0042	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW65-72117 — Lab Sample ID: 550-86694-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Barium	0.012	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0080	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD01-72117 — Lab Sample ID: 550-86694-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Barium	0.012	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0076	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW66-72117 — Lab Sample ID: 550-86694-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	25	D1	2.0	mg/L	5		300.0	Total/NA
Barium	0.020	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0065	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.021	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW67-72117 — Lab Sample ID: 550-86694-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	22	D1	2.0	mg/L	5		300.0	Total/NA
Arsenic	0.0027	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.020	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0053	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.039	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.053	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Thallium	0.00050	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW68-72117 — Lab Sample ID: 550-86694-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	9.6	D1	2.0	mg/L	5		300.0	Total/NA
Arsenic	0.0081	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0066	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0017	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0058	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.30	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Thallium	0.00062	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW69-72117 — Lab Sample ID: 550-86694-13

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW69-72117 (Continued) — Lab Sample ID: 550-86694-13

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	18	D1	2.0	mg/L	5		300.0	Total/NA
Arsenic	0.0083	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.016	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0048	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.014	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.013	D1	0.0010	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW70-72117 — Lab Sample ID: 550-86694-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.1	D1	0.80	mg/L	2		300.0	Total/NA
Arsenic	0.0042	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0095	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0055	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0055	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.21	D1	0.0010	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW71-72117 — Lab Sample ID: 550-86694-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0053	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0086	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.24	D1	0.0010	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW72-72117 — Lab Sample ID: 550-86694-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0026	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0073	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0024	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Selenium	0.13	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Thallium	0.00089	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW73-72217 — Lab Sample ID: 550-86694-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.27		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.024	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0067	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0023	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.016	D1	0.0010	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD02-72217 — Lab Sample ID: 550-86694-18

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.025	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0067	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0021	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.015	D1	0.0010	mg/L	2		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW74-72217 — Lab Sample ID: 550-86694-19

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.9	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.41		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0028	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.018	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.016	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.071	D1	0.0010	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW75-72217 — Lab Sample ID: 550-86694-20

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.44		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.018	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cadmium	0.0020	D1	0.00040	mg/L	4		200.8 LL	Total/NA
Cobalt	0.043	D1	0.0010	mg/L	2		200.8 LL	Total/NA
Lead	0.0030	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.16	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.0026	D1	0.0010	mg/L	2		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW7-72217

Lab Sample ID: 550-86694-1
Date Collected: 07/22/17 15:46
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	0.80	mg/L			07/27/17 20:32	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 00:28	1
Lithium	**0.89**		0.20	mg/L		07/26/17 11:04	08/09/17 00:19	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 11:57	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 11:57	4
Barium	**0.014**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 11:57	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 11:57	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 11:57	4
Cobalt	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 11:57	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 11:57	4
Molybdenum	**0.0031**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 11:57	4
Selenium	**0.011**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 11:57	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 11:57	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 17:55	1

Client Sample ID: FC-CCR-MW49A-72217

Lab Sample ID: 550-86694-2
Date Collected: 07/22/17 16:35
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	4.0	mg/L			07/27/17 22:22	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 00:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**1.1**	**D1**	0.80	mg/L		07/26/17 11:04	07/29/17 22:42	4

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		07/27/17 06:51	08/07/17 12:14	10
Arsenic	ND	D1	0.010	mg/L		07/27/17 06:51	08/31/17 12:13	20
Barium	**0.021**	**D1**	0.0050	mg/L		07/27/17 06:51	08/07/17 12:14	10
Cadmium	ND	D1	0.0010	mg/L		07/27/17 06:51	08/07/17 12:14	10
Chromium	ND	D1	0.020	mg/L		07/27/17 06:51	08/31/17 12:13	20
Cobalt	ND	D1	0.010	mg/L		07/27/17 06:51	08/31/17 12:13	20
Lead	ND	D1	0.0050	mg/L		07/27/17 06:51	08/07/17 12:14	10
Molybdenum	**0.025**	**D1**	0.0050	mg/L		07/27/17 06:51	08/07/17 12:14	10
Selenium	ND	D1	0.010	mg/L		07/27/17 06:51	08/31/17 12:13	20

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW49A-72217

Lab Sample ID: 550-86694-2
Date Collected: 07/22/17 16:35
Matrix: Water
Date Received: 07/25/17 13:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	**0.0013**	**D1**	0.0010	mg/L		07/27/17 06:51	08/07/17 12:14	10

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 17:58	1

Client Sample ID: FC-CCR-MW60-72217

Lab Sample ID: 550-86694-3
Date Collected: 07/22/17 14:37
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**7.0**	**D1**	0.80	mg/L			07/27/17 22:59	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 00:40	1
Lithium	**0.82**		0.20	mg/L		07/26/17 11:04	08/09/17 00:25	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 12:17	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:17	4
Barium	**0.016**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:17	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:17	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:17	4
Cobalt	**0.24**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:17	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:17	4
Molybdenum	**0.15**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:17	4
Selenium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:17	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:17	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:00	1

Client Sample ID: FC-CCR-MW61-72217

Lab Sample ID: 550-86694-4
Date Collected: 07/22/17 13:50
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.3**		0.40	mg/L			07/28/17 00:13	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		07/26/17 11:04	07/28/17 00:46	1
Lithium	**0.38**		0.20	mg/L		07/26/17 11:04	08/09/17 00:30	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW61-72217

Lab Sample ID: 550-86694-4
Matrix: Water
Date Collected: 07/22/17 13:50
Date Received: 07/25/17 13:00

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 12:24	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:24	4
Barium	**0.013**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:24	4
Cadmium	**0.00082**	**D1**	0.00040	mg/L		07/27/17 06:51	08/07/17 12:24	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:24	4
Cobalt	**0.013**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:24	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:24	4
Molybdenum	**0.070**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:24	4
Selenium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:24	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:24	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:01	1

Client Sample ID: FC-CCR-MW62-72117

Lab Sample ID: 550-86694-5
Matrix: Water
Date Collected: 07/21/17 11:49
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.5**		0.40	mg/L			07/28/17 00:50	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		07/26/17 11:04	07/28/17 00:51	1
Lithium	ND		0.20	mg/L		07/26/17 11:04	08/09/17 00:36	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 12:29	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:29	4
Barium	**0.023**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:29	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:29	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:29	4
Cobalt	**0.0044**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:29	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:29	4
Molybdenum	**0.0029**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:29	4
Selenium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:29	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:29	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:03	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW63-72117

Lab Sample ID: 550-86694-6
Date Collected: 07/21/17 11:05
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.0**		0.40	mg/L			07/28/17 01:26	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		07/26/17 11:04	07/28/17 00:57	1
Lithium	ND		0.20	mg/L		07/26/17 11:04	08/09/17 00:42	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 12:38	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:38	4
Barium	**0.018**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:38	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:38	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 12:22	2
Cobalt	**0.0057**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:38	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:38	4
Molybdenum	**0.0023**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:38	4
Selenium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:38	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:38	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:04	1

Client Sample ID: FC-CCR-MW64-72117

Lab Sample ID: 550-86694-7
Date Collected: 07/21/17 10:32
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.5**		0.40	mg/L			07/28/17 14:13	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		07/26/17 11:04	07/28/17 01:03	1
Lithium	ND		0.20	mg/L		07/26/17 11:04	08/09/17 00:48	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 12:43	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:43	4
Barium	**0.024**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:43	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:43	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 12:29	2
Cobalt	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:43	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:43	4
Molybdenum	**0.0042**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:43	4
Selenium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:43	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:43	4

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW64-72117

Lab Sample ID: 550-86694-7
Date Collected: 07/21/17 10:32
Matrix: Water
Date Received: 07/25/17 13:00

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:06	1

Client Sample ID: FC-CCR-MW65-72117

Lab Sample ID: 550-86694-8
Date Collected: 07/21/17 09:42
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.0**		0.40	mg/L			07/28/17 16:03	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		07/26/17 11:04	07/28/17 01:06	1
Lithium	ND		0.20	mg/L		07/26/17 11:04	08/09/17 00:56	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 12:50	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:50	4
Barium	**0.012**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:50	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:50	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 12:34	2
Cobalt	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:50	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:50	4
Molybdenum	**0.0080**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:50	4
Selenium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:50	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:50	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:07	1

Client Sample ID: FC-CCR-FD01-72117

Lab Sample ID: 550-86694-9
Date Collected: 07/21/17 09:42
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.0**		0.40	mg/L			07/28/17 16:40	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		07/26/17 11:04	07/28/17 01:09	1
Lithium	ND		0.20	mg/L		07/26/17 11:04	08/09/17 00:59	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 12:55	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:55	4
Barium	**0.012**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:55	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:55	4

Client Sample ID: FC-CCR-FD01-72117

Lab Sample ID: 550-86694-9
Date Collected: 07/21/17 09:42
Matrix: Water
Date Received: 07/25/17 13:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 12:44	2
Cobalt	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:55	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:55	4
Molybdenum	**0.0076**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 12:55	4
Selenium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 12:55	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 12:55	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:09	1

Client Sample ID: FC-CCR-MW66-72117

Lab Sample ID: 550-86694-10
Date Collected: 07/21/17 12:26
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**25**	**D1**	2.0	mg/L			07/28/17 17:54	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 01:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	D1	0.80	mg/L		07/26/17 11:04	07/29/17 22:48	4

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:02	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:02	4
Barium	**0.020**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:02	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:02	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 12:48	2
Cobalt	**0.0065**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:02	4
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:02	4
Molybdenum	**0.021**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:02	4
Selenium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:02	4
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:02	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:13	1

Client Sample ID: FC-CCR-MW67-72117

Lab Sample ID: 550-86694-11
Date Collected: 07/21/17 14:46
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**22**	**D1**	2.0	mg/L			07/28/17 18:31	5

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW67-72117

Lab Sample ID: 550-86694-11
Date Collected: 07/21/17 14:46
Matrix: Water
Date Received: 07/25/17 13:00

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 01:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	D1	0.80	mg/L		07/26/17 11:04	07/29/17 22:53	4

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:11	4
Arsenic	**0.0027**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:11	4
Barium	**0.020**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:11	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:11	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 12:53	2
Cobalt	**0.0053**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 12:53	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:11	4
Molybdenum	**0.039**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:11	4
Selenium	**0.053**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 12:53	2
Thallium	**0.00050**	**D1**	0.00040	mg/L		07/27/17 06:51	08/07/17 13:11	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:15	1

Client Sample ID: FC-CCR-MW68-72117

Lab Sample ID: 550-86694-12
Date Collected: 07/21/17 15:14
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**9.6**	**D1**	2.0	mg/L			07/28/17 19:07	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 01:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	D1	0.80	mg/L		07/26/17 11:04	07/29/17 23:05	4

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:16	4
Arsenic	**0.0081**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:16	4
Barium	**0.0066**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:16	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:16	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:00	2
Cobalt	**0.0017**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:00	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:16	4
Molybdenum	**0.0058**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:16	4
Selenium	**0.30**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:00	2
Thallium	**0.00062**	**D1**	0.00040	mg/L		07/27/17 06:51	08/07/17 13:16	4

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW68-72117

Lab Sample ID: 550-86694-12
Date Collected: 07/21/17 15:14
Matrix: Water
Date Received: 07/25/17 13:00

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:16	1

Client Sample ID: FC-CCR-MW69-72117

Lab Sample ID: 550-86694-13
Date Collected: 07/21/17 14:05
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**18**	**D1**	2.0	mg/L			07/28/17 19:44	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 01:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	D1	0.80	mg/L		07/26/17 11:04	07/29/17 23:11	4

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:23	4
Arsenic	**0.0083**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:23	4
Barium	**0.016**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:23	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:23	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:05	2
Cobalt	**0.0048**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:05	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:23	4
Molybdenum	**0.014**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:23	4
Selenium	**0.013**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:05	2
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:23	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:24	1

Client Sample ID: FC-CCR-MW70-72117

Lab Sample ID: 550-86694-14
Date Collected: 07/21/17 13:16
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.1**	**D1**	0.80	mg/L			07/28/17 20:21	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 01:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	D1	0.80	mg/L		07/26/17 11:04	07/29/17 23:16	4

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW70-72117

Lab Sample ID: 550-86694-14
Date Collected: 07/21/17 13:16
Matrix: Water
Date Received: 07/25/17 13:00

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:28	4
Arsenic	**0.0042**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:28	4
Barium	**0.0095**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:28	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:28	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:14	2
Cobalt	**0.0055**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:14	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:28	4
Molybdenum	**0.0055**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:28	4
Selenium	**0.21**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:14	2
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:28	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:26	1

Client Sample ID: FC-CCR-MW71-72117

Lab Sample ID: 550-86694-15
Date Collected: 07/21/17 16:09
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/01/17 15:42	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 01:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	D1	0.40	mg/L		07/26/17 11:04	07/29/17 23:22	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:35	4
Arsenic	**0.0053**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:35	4
Barium	**0.0086**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:35	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:35	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:19	2
Cobalt	ND	D1	0.0010	mg/L		07/27/17 06:51	08/31/17 13:19	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:35	4
Molybdenum	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:35	4
Selenium	**0.24**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:19	2
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:35	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 10:45	07/28/17 18:27	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW72-72117

Lab Sample ID: 550-86694-16
Date Collected: 07/21/17 16:47
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			07/28/17 22:11	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 01:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	D1	0.80	mg/L		07/26/17 11:04	07/29/17 23:28	4

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:45	4
Arsenic	**0.0026**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:45	4
Barium	**0.0073**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:45	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:45	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:26	2
Cobalt	**0.0024**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:26	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:45	4
Molybdenum	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:45	4
Selenium	**0.13**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:26	2
Thallium	**0.00089**	**D1**	0.00040	mg/L		07/27/17 06:51	08/07/17 13:45	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 11:30	08/01/17 11:33	1

Client Sample ID: FC-CCR-MW73-72217

Lab Sample ID: 550-86694-17
Date Collected: 07/22/17 11:36
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	0.80	mg/L			07/28/17 22:48	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 01:58	1
Lithium	**0.27**		0.20	mg/L		07/26/17 11:04	08/09/17 01:02	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:50	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:50	4
Barium	**0.024**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:50	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:50	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:31	2
Cobalt	**0.0067**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:31	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:50	4
Molybdenum	**0.0023**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:50	4
Selenium	**0.016**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:31	2

Client Sample ID: FC-CCR-MW73-72217 — Lab Sample ID: 550-86694-17

Date Collected: 07/22/17 11:36 — **Matrix: Water**
Date Received: 07/25/17 13:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:50	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 11:30	08/01/17 11:35	1

Client Sample ID: FC-CCR-FD02-72217 — Lab Sample ID: 550-86694-18

Date Collected: 07/22/17 11:36 — **Matrix: Water**
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			07/28/17 23:25	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 02:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	D1	0.40	mg/L		07/26/17 11:04	07/29/17 23:34	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 13:57	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:57	4
Barium	**0.025**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:57	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:57	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:36	2
Cobalt	**0.0067**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:36	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 13:57	4
Molybdenum	**0.0021**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 13:57	4
Selenium	**0.015**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:36	2
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 13:57	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 11:30	08/01/17 11:37	1

Client Sample ID: FC-CCR-MW74-72217 — Lab Sample ID: 550-86694-19

Date Collected: 07/22/17 12:47 — **Matrix: Water**
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.9**	**D1**	0.80	mg/L			07/29/17 00:02	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 02:10	1
Lithium	**0.41**		0.20	mg/L		07/26/17 11:04	08/09/17 01:08	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW74-72217

Lab Sample ID: 550-86694-19
Date Collected: 07/22/17 12:47
Matrix: Water
Date Received: 07/25/17 13:00

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 14:02	4
Arsenic	**0.0028**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 14:02	4
Barium	**0.018**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 14:02	4
Cadmium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 14:02	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:45	2
Cobalt	ND	D1	0.0010	mg/L		07/27/17 06:51	08/31/17 13:45	2
Lead	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 14:02	4
Molybdenum	**0.016**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 14:02	4
Selenium	**0.071**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:45	2
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 14:02	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 11:30	08/01/17 11:38	1

Client Sample ID: FC-CCR-MW75-72217

Lab Sample ID: 550-86694-20
Date Collected: 07/22/17 14:27
Matrix: Water
Date Received: 07/25/17 13:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			07/29/17 01:15	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		07/26/17 11:04	07/28/17 02:16	1
Lithium	**0.44**		0.20	mg/L		07/26/17 11:04	08/09/17 01:16	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		07/27/17 06:51	08/07/17 14:09	4
Arsenic	ND	D1	0.0020	mg/L		07/27/17 06:51	08/07/17 14:09	4
Barium	**0.018**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 14:09	4
Cadmium	**0.0020**	**D1**	0.00040	mg/L		07/27/17 06:51	08/07/17 14:09	4
Chromium	ND	D1	0.0020	mg/L		07/27/17 06:51	08/31/17 13:53	2
Cobalt	**0.043**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:53	2
Lead	**0.0030**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 14:09	4
Molybdenum	**0.16**	**D1**	0.0020	mg/L		07/27/17 06:51	08/07/17 14:09	4
Selenium	**0.0026**	**D1**	0.0010	mg/L		07/27/17 06:51	08/31/17 13:53	2
Thallium	ND	D1	0.00040	mg/L		07/27/17 06:51	08/07/17 14:09	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		07/27/17 11:30	08/01/17 11:44	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-123499/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123499

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			07/27/17 19:00	1

Lab Sample ID: LCS 550-123499/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123499

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.21		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-123499/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123499

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.23		mg/L		106	90 - 110	1	20

Lab Sample ID: 550-86694-1 MS — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123499

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	ND		8.00	8.36	D1	mg/L		100	80 - 120		

Lab Sample ID: 550-86694-1 MSD — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	ND		8.00	8.34	D1	mg/L		99	80 - 120	0	20

Lab Sample ID: MB 550-123623/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123623

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			07/28/17 12:41	1

Lab Sample ID: LCS 550-123623/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123623

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.26		mg/L		106	90 - 110		

Lab Sample ID: LCSD 550-123623/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123623

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.27		mg/L		107	90 - 110	0	20

QC Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Lab Sample ID: 550-86694-7 MS — **Client Sample ID: FC-CCR-MW64-72117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123623

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	1.5		4.00	5.88		mg/L		110	80 - 120		

Lab Sample ID: 550-86694-7 MSD — **Client Sample ID: FC-CCR-MW64-72117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123623

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.5		4.00	5.80		mg/L		108	80 - 120	1	20

Lab Sample ID: MB 550-123845/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123845

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			08/01/17 12:01	1

Lab Sample ID: LCS 550-123845/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123845

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.19		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-123845/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123845

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.21		mg/L		105	90 - 110	1	20

Lab Sample ID: 550-86801-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123845

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	ND		4.00	4.16		mg/L		101	80 - 120		

Lab Sample ID: 550-86801-B-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123845

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	ND		4.00	4.17		mg/L		102	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-123250/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123444 — **Prep Batch: 123250**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		07/26/17 11:04	07/28/17 00:08	1

Lab Sample ID: MB 550-123250/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124466 — **Prep Batch: 123250**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		07/26/17 11:04	08/08/17 23:59	1
Lithium	ND		0.20		mg/L		07/26/17 11:04	08/08/17 23:59	1

Lab Sample ID: LCS 550-123250/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123444 — **Prep Batch: 123250**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium			1.00	1.04		mg/L		104	85 - 115		

Lab Sample ID: LCS 550-123250/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124466 — **Prep Batch: 123250**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium			1.00	1.04		mg/L		104	85 - 115		
Lithium			1.00	1.06		mg/L		106	85 - 115		

Lab Sample ID: LCSD 550-123250/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123444 — **Prep Batch: 123250**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium			1.00	1.04		mg/L		104	85 - 115	0	20

Lab Sample ID: LCSD 550-123250/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124466 — **Prep Batch: 123250**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium			1.00	1.03		mg/L		103	85 - 115	1	20
Lithium			1.00	1.05		mg/L		105	85 - 115	1	20

Lab Sample ID: 550-86694-1 MS — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123444 — **Prep Batch: 123250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium	-0.0000302		1.00	0.994		mg/L		99	70 - 130		

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

Lab Sample ID: 550-86694-1 MS — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124466 — **Prep Batch: 123250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.89		1.00	1.94		mg/L		105	70 - 130

Lab Sample ID: 550-86694-1 MSD — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123444 — **Prep Batch: 123250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	-0.0000302		1.00	1.00		mg/L		100	70 - 130	1	20

Lab Sample ID: 550-86694-1 MSD — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124466 — **Prep Batch: 123250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.89		1.00	2.01		mg/L		111	70 - 130	3	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-123321/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124252 — **Prep Batch: 123321**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		07/27/17 06:51	08/07/17 11:51	1
Arsenic	ND		0.00050	mg/L		07/27/17 06:51	08/07/17 11:51	1
Barium	ND		0.00050	mg/L		07/27/17 06:51	08/07/17 11:51	1
Cadmium	ND		0.00010	mg/L		07/27/17 06:51	08/07/17 11:51	1
Chromium	ND		0.00050	mg/L		07/27/17 06:51	08/07/17 11:51	1
Cobalt	ND		0.00050	mg/L		07/27/17 06:51	08/07/17 11:51	1
Lead	ND		0.00050	mg/L		07/27/17 06:51	08/07/17 11:51	1
Molybdenum	ND		0.00050	mg/L		07/27/17 06:51	08/07/17 11:51	1
Selenium	ND		0.00050	mg/L		07/27/17 06:51	08/07/17 11:51	1
Thallium	ND		0.00010	mg/L		07/27/17 06:51	08/07/17 11:51	1

Lab Sample ID: LCS 550-123321/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124252 — **Prep Batch: 123321**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0911		mg/L		91	85 - 115
Arsenic	0.100	0.0925		mg/L		92	85 - 115
Barium	0.100	0.0946		mg/L		95	85 - 115
Cadmium	0.100	0.0927		mg/L		93	85 - 115
Chromium	0.100	0.0934		mg/L		93	85 - 115
Cobalt	0.100	0.0931		mg/L		93	85 - 115
Lead	0.100	0.0939		mg/L		94	85 - 115
Molybdenum	0.100	0.0929		mg/L		93	85 - 115
Selenium	0.100	0.0921		mg/L		92	85 - 115
Thallium	0.100	0.0935		mg/L		94	85 - 115

Lab Sample ID: LCSD 550-123321/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124252 — **Prep Batch: 123321**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0904		mg/L		90	85 - 115	1	20
Arsenic	0.100	0.0924		mg/L		92	85 - 115	0	20
Barium	0.100	0.0931		mg/L		93	85 - 115	2	20
Cadmium	0.100	0.0923		mg/L		92	85 - 115	0	20
Chromium	0.100	0.0950		mg/L		95	85 - 115	2	20
Cobalt	0.100	0.0931		mg/L		93	85 - 115	0	20
Lead	0.100	0.0924		mg/L		92	85 - 115	2	20
Molybdenum	0.100	0.0931		mg/L		93	85 - 115	0	20
Selenium	0.100	0.0926		mg/L		93	85 - 115	0	20
Thallium	0.100	0.0923		mg/L		92	85 - 115	1	20

Lab Sample ID: 550-86694-1 MS — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124252 — **Prep Batch: 123321**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	D1	0.100	0.0993	D1	mg/L		98	70 - 130
Arsenic	ND	D1	0.100	0.0984	D1	mg/L		98	70 - 130
Barium	0.014	D1	0.100	0.113	D1	mg/L		98	70 - 130
Cadmium	ND	D1	0.100	0.0945	D1	mg/L		95	70 - 130
Chromium	ND	D1	0.100	0.0901	D1	mg/L		90	70 - 130
Cobalt	ND	D1	0.100	0.0883	D1	mg/L		88	70 - 130
Lead	ND	D1	0.100	0.0888	D1	mg/L		89	70 - 130
Molybdenum	0.0031	D1	0.100	0.101	D1	mg/L		98	70 - 130
Selenium	0.011	D1	0.100	0.113	D1	mg/L		102	70 - 130
Thallium	ND	D1	0.100	0.0922	D1	mg/L		92	70 - 130

Lab Sample ID: 550-86694-1 MSD — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124252 — **Prep Batch: 123321**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	D1	0.100	0.0993	D1	mg/L		98	70 - 130	0	20
Arsenic	ND	D1	0.100	0.0969	D1	mg/L		97	70 - 130	2	20
Barium	0.014	D1	0.100	0.112	D1	mg/L		97	70 - 130	1	20
Cadmium	ND	D1	0.100	0.0933	D1	mg/L		93	70 - 130	1	20
Chromium	ND	D1	0.100	0.0854	D1	mg/L		85	70 - 130	5	20
Cobalt	ND	D1	0.100	0.0848	D1	mg/L		85	70 - 130	4	20
Lead	ND	D1	0.100	0.0866	D1	mg/L		87	70 - 130	2	20
Molybdenum	0.0031	D1	0.100	0.100	D1	mg/L		97	70 - 130	1	20
Selenium	0.011	D1	0.100	0.109	D1	mg/L		98	70 - 130	3	20
Thallium	ND	D1	0.100	0.0877	D1	mg/L		88	70 - 130	5	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-123357/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123524 — **Prep Batch: 123357**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		07/27/17 10:45	07/28/17 17:47	1

QC Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Lab Sample ID: LCS 550-123357/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123524 — **Prep Batch: 123357**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg			0.0100	0.00927		mg/L		93	85 - 115		

Lab Sample ID: LCSD 550-123357/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123524 — **Prep Batch: 123357**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg			0.0100	0.00972		mg/L		97	85 - 115	5	20

Lab Sample ID: 550-86694-1 MS — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123524 — **Prep Batch: 123357**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg	ND		0.0100	0.00788		mg/L		79	70 - 130		

Lab Sample ID: 550-86694-1 MSD — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123524 — **Prep Batch: 123357**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.00845		mg/L		85	70 - 130	7	20

Lab Sample ID: MB 550-123371/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123741 — **Prep Batch: 123371**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		07/27/17 11:30	08/01/17 11:25	1

Lab Sample ID: LCS 550-123371/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123741 — **Prep Batch: 123371**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg			0.0100	0.0101		mg/L		101	85 - 115		

Lab Sample ID: LCSD 550-123371/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123741 — **Prep Batch: 123371**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg			0.0100	0.0104		mg/L		104	85 - 115	3	20

Lab Sample ID: 550-86694-16 MS — **Client Sample ID: FC-CCR-MW72-72117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123741 — **Prep Batch: 123371**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg	ND		0.0100	0.00925		mg/L		92	70 - 130		

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-86694-16 MSD
Matrix: Water
Analysis Batch: 123741

Client Sample ID: FC-CCR-MW72-72117
Prep Type: Total/NA
Prep Batch: 123371

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.00905		mg/L		91	70 - 130	2	20

QC Association Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

HPLC/IC

Analysis Batch: 123499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	300.0	
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	300.0	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	300.0	
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	300.0	
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	300.0	
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	300.0	
MB 550-123499/2	Method Blank	Total/NA	Water	300.0	
LCS 550-123499/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-123499/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-86694-1 MS	FC-CCR-MW7-72217	Total/NA	Water	300.0	
550-86694-1 MSD	FC-CCR-MW7-72217	Total/NA	Water	300.0	

Analysis Batch: 123623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	300.0	
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	300.0	
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	300.0	
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	300.0	
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	300.0	
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	300.0	
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	300.0	
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	300.0	
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	300.0	
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	300.0	
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	300.0	
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	300.0	
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	300.0	
MB 550-123623/2	Method Blank	Total/NA	Water	300.0	
LCS 550-123623/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-123623/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-86694-7 MS	FC-CCR-MW64-72117	Total/NA	Water	300.0	
550-86694-7 MSD	FC-CCR-MW64-72117	Total/NA	Water	300.0	

Analysis Batch: 123845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	300.0	
MB 550-123845/2	Method Blank	Total/NA	Water	300.0	
LCS 550-123845/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-123845/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-86801-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-86801-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 123250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	200.7	
550-86694-2 - DL	FC-CCR-MW49A-72217	Total/NA	Water	200.7	
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	200.7	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 123250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	200.7	
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	200.7	
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	200.7	
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	200.7	
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	200.7	
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	200.7	
550-86694-10 - DL	FC-CCR-MW66-72117	Total/NA	Water	200.7	
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	200.7	
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	200.7	
550-86694-11 - DL	FC-CCR-MW67-72117	Total/NA	Water	200.7	
550-86694-12 - DL	FC-CCR-MW68-72117	Total/NA	Water	200.7	
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	200.7	
550-86694-13 - DL	FC-CCR-MW69-72117	Total/NA	Water	200.7	
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	200.7	
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	200.7	
550-86694-14 - DL	FC-CCR-MW70-72117	Total/NA	Water	200.7	
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	200.7	
550-86694-15 - DL	FC-CCR-MW71-72117	Total/NA	Water	200.7	
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	200.7	
550-86694-16 - DL	FC-CCR-MW72-72117	Total/NA	Water	200.7	
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	200.7	
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	200.7	
550-86694-18 - DL	FC-CCR-FD02-72217	Total/NA	Water	200.7	
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	200.7	
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	200.7	
MB 550-123250/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-123250/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-123250/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-86694-1 MS	FC-CCR-MW7-72217	Total/NA	Water	200.7	
550-86694-1 MSD	FC-CCR-MW7-72217	Total/NA	Water	200.7	

Prep Batch: 123321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	200.8	
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	200.8	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	200.8	
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	200.8	
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	200.8	
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	200.8	
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	200.8	
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	200.8	
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	200.8	
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	200.8	
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	200.8	
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	200.8	
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	200.8	
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	200.8	
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	200.8	
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	200.8	
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	200.8	
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 123321 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	200.8	
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	200.8	
MB 550-123321/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-123321/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-123321/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-86694-1 MS	FC-CCR-MW7-72217	Total/NA	Water	200.8	
550-86694-1 MSD	FC-CCR-MW7-72217	Total/NA	Water	200.8	

Prep Batch: 123357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	245.1	
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	245.1	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	245.1	
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	245.1	
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	245.1	
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	245.1	
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	245.1	
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	245.1	
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	245.1	
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	245.1	
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	245.1	
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	245.1	
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	245.1	
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	245.1	
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	245.1	
MB 550-123357/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-123357/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-123357/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-86694-1 MS	FC-CCR-MW7-72217	Total/NA	Water	245.1	
550-86694-1 MSD	FC-CCR-MW7-72217	Total/NA	Water	245.1	

Prep Batch: 123371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	245.1	
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	245.1	
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	245.1	
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	245.1	
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	245.1	
MB 550-123371/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-123371/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-123371/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-86694-16 MS	FC-CCR-MW72-72117	Total/NA	Water	245.1	
550-86694-16 MSD	FC-CCR-MW72-72117	Total/NA	Water	245.1	

Analysis Batch: 123444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	200.7 Rev 4.4	123250

Metals (Continued)

Analysis Batch: 123444 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	200.7 Rev 4.4	123250
MB 550-123250/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	123250
LCS 550-123250/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	123250
LCSD 550-123250/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-1 MS	FC-CCR-MW7-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-1 MSD	FC-CCR-MW7-72217	Total/NA	Water	200.7 Rev 4.4	123250

Analysis Batch: 123524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	245.1	123357
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	245.1	123357
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	245.1	123357
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	245.1	123357
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	245.1	123357
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	245.1	123357
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	245.1	123357
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	245.1	123357
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	245.1	123357
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	245.1	123357
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	245.1	123357
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	245.1	123357
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	245.1	123357
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	245.1	123357
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	245.1	123357
MB 550-123357/1-A	Method Blank	Total/NA	Water	245.1	123357
LCS 550-123357/2-A	Lab Control Sample	Total/NA	Water	245.1	123357
LCSD 550-123357/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	123357
550-86694-1 MS	FC-CCR-MW7-72217	Total/NA	Water	245.1	123357
550-86694-1 MSD	FC-CCR-MW7-72217	Total/NA	Water	245.1	123357

Analysis Batch: 123574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-2 - DL	FC-CCR-MW49A-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-10 - DL	FC-CCR-MW66-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-11 - DL	FC-CCR-MW67-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-12 - DL	FC-CCR-MW68-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-13 - DL	FC-CCR-MW69-72117	Total/NA	Water	200.7 Rev 4.4	123250

Metals (Continued)

Analysis Batch: 123574 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-14 - DL	FC-CCR-MW70-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-15 - DL	FC-CCR-MW71-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-16 - DL	FC-CCR-MW72-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-18 - DL	FC-CCR-FD02-72217	Total/NA	Water	200.7 Rev 4.4	123250

Analysis Batch: 123741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	245.1	123371
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	245.1	123371
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	245.1	123371
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	245.1	123371
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	245.1	123371
MB 550-123371/1-A	Method Blank	Total/NA	Water	245.1	123371
LCS 550-123371/2-A	Lab Control Sample	Total/NA	Water	245.1	123371
LCSD 550-123371/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	123371
550-86694-16 MS	FC-CCR-MW72-72117	Total/NA	Water	245.1	123371
550-86694-16 MSD	FC-CCR-MW72-72117	Total/NA	Water	245.1	123371

Analysis Batch: 124252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	200.8 LL	123321
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	200.8 LL	123321
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	200.8 LL	123321
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	200.8 LL	123321
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	200.8 LL	123321
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	200.8 LL	123321
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	200.8 LL	123321
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	200.8 LL	123321
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	200.8 LL	123321
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	200.8 LL	123321
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	200.8 LL	123321
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	200.8 LL	123321
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	200.8 LL	123321
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	200.8 LL	123321
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	200.8 LL	123321
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	200.8 LL	123321
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	200.8 LL	123321
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	200.8 LL	123321
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	200.8 LL	123321
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	200.8 LL	123321
MB 550-123321/1-A	Method Blank	Total/NA	Water	200.8 LL	123321
LCS 550-123321/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	123321
LCSD 550-123321/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	123321
550-86694-1 MS	FC-CCR-MW7-72217	Total/NA	Water	200.8 LL	123321
550-86694-1 MSD	FC-CCR-MW7-72217	Total/NA	Water	200.8 LL	123321

Analysis Batch: 124466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	200.7 Rev 4.4	123250

Metals (Continued)

Analysis Batch: 124466 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	200.7 Rev 4.4	123250
MB 550-123250/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	123250
LCS 550-123250/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	123250
LCSD 550-123250/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-1 MS	FC-CCR-MW7-72217	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-1 MSD	FC-CCR-MW7-72217	Total/NA	Water	200.7 Rev 4.4	123250

Analysis Batch: 126329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	200.8 LL	123321
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	200.8 LL	123321
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	200.8 LL	123321
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	200.8 LL	123321
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	200.8 LL	123321
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	200.8 LL	123321
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	200.8 LL	123321
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	200.8 LL	123321
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	200.8 LL	123321
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	200.8 LL	123321
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	200.8 LL	123321
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	200.8 LL	123321
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	200.8 LL	123321
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	200.8 LL	123321
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	200.8 LL	123321
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	200.8 LL	123321

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW7-72217 — Lab Sample ID: 550-86694-1

Date Collected: 07/22/17 15:46
Matrix: Water
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	123499	07/27/17 20:32	JAE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 00:28	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 00:19	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 11:57	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 17:55	JTG	TAL PHX

Client Sample ID: FC-CCR-MW49A-72217 — Lab Sample ID: 550-86694-2

Date Collected: 07/22/17 16:35
Matrix: Water
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	123499	07/27/17 22:22	JAE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 00:34	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	4	123574	07/29/17 22:42	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	124252	08/07/17 12:14	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		20	126329	08/31/17 12:13	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 17:58	JTG	TAL PHX

Client Sample ID: FC-CCR-MW60-72217 — Lab Sample ID: 550-86694-3

Date Collected: 07/22/17 14:37
Matrix: Water
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	123499	07/27/17 22:59	JAE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 00:40	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 00:25	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 12:17	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:00	JTG	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW61-72217 — Lab Sample ID: 550-86694-4

Date Collected: 07/22/17 13:50 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	123499	07/28/17 00:13	JAE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 00:46	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 00:30	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 12:24	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:01	JTG	TAL PHX

Client Sample ID: FC-CCR-MW62-72117 — Lab Sample ID: 550-86694-5

Date Collected: 07/21/17 11:49 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	123499	07/28/17 00:50	JAE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 00:51	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 00:36	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 12:29	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:03	JTG	TAL PHX

Client Sample ID: FC-CCR-MW63-72117 — Lab Sample ID: 550-86694-6

Date Collected: 07/21/17 11:05 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	123499	07/28/17 01:26	JAE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 00:57	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 00:42	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 12:38	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 12:22	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:04	JTG	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW64-72117

Lab Sample ID: 550-86694-7
Date Collected: 07/21/17 10:32
Matrix: Water
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	123623	07/28/17 14:13	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:03	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 00:48	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 12:43	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 12:29	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:06	JTG	TAL PHX

Client Sample ID: FC-CCR-MW65-72117

Lab Sample ID: 550-86694-8
Date Collected: 07/21/17 09:42
Matrix: Water
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	123623	07/28/17 16:03	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:06	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 00:56	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 12:50	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 12:34	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:07	JTG	TAL PHX

Client Sample ID: FC-CCR-FD01-72117

Lab Sample ID: 550-86694-9
Date Collected: 07/21/17 09:42
Matrix: Water
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	123623	07/28/17 16:40	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:09	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 00:59	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 12:55	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 12:44	TEK	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-FD01-72117 — Lab Sample ID: 550-86694-9

Date Collected: 07/21/17 09:42 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:09	JTG	TAL PHX

Client Sample ID: FC-CCR-MW66-72117 — Lab Sample ID: 550-86694-10

Date Collected: 07/21/17 12:26 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	123623	07/28/17 17:54	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:12	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	4	123574	07/29/17 22:48	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:02	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 12:48	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:13	JTG	TAL PHX

Client Sample ID: FC-CCR-MW67-72117 — Lab Sample ID: 550-86694-11

Date Collected: 07/21/17 14:46 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	123623	07/28/17 18:31	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:23	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	4	123574	07/29/17 22:53	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:11	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 12:53	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:15	JTG	TAL PHX

Client Sample ID: FC-CCR-MW68-72117 — Lab Sample ID: 550-86694-12

Date Collected: 07/21/17 15:14 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	123623	07/28/17 19:07	JSS	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW68-72117 — Lab Sample ID: 550-86694-12

Date Collected: 07/21/17 15:14 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:29	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	4	123574	07/29/17 23:05	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:16	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:00	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:16	JTG	TAL PHX

Client Sample ID: FC-CCR-MW69-72117 — Lab Sample ID: 550-86694-13

Date Collected: 07/21/17 14:05 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	123623	07/28/17 19:44	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:35	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	4	123574	07/29/17 23:11	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:23	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:05	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:24	JTG	TAL PHX

Client Sample ID: FC-CCR-MW70-72117 — Lab Sample ID: 550-86694-14

Date Collected: 07/21/17 13:16 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	123623	07/28/17 20:21	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:41	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	4	123574	07/29/17 23:16	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:28	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:14	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW70-72117 — Lab Sample ID: 550-86694-14

Date Collected: 07/21/17 13:16 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	245.1		1	123524	07/28/17 18:26	JTG	TAL PHX

Client Sample ID: FC-CCR-MW71-72117 — Lab Sample ID: 550-86694-15

Date Collected: 07/21/17 16:09 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	123845	08/01/17 15:42	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:47	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	2	123574	07/29/17 23:22	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:35	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:19	TEK	TAL PHX
Total/NA	Prep	245.1			123357	07/27/17 10:45	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123524	07/28/17 18:27	JTG	TAL PHX

Client Sample ID: FC-CCR-MW72-72117 — Lab Sample ID: 550-86694-16

Date Collected: 07/21/17 16:47 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	123623	07/28/17 22:11	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:53	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	4	123574	07/29/17 23:28	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:45	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:26	TEK	TAL PHX
Total/NA	Prep	245.1			123371	07/27/17 11:30	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123741	08/01/17 11:33	JTG	TAL PHX

Client Sample ID: FC-CCR-MW73-72217 — Lab Sample ID: 550-86694-17

Date Collected: 07/22/17 11:36 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	123623	07/28/17 22:48	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW73-72217 — Lab Sample ID: 550-86694-17

Date Collected: 07/22/17 11:36 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 01:58	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 01:02	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:50	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:31	TEK	TAL PHX
Total/NA	Prep	245.1			123371	07/27/17 11:30	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123741	08/01/17 11:35	JTG	TAL PHX

Client Sample ID: FC-CCR-FD02-72217 — Lab Sample ID: 550-86694-18

Date Collected: 07/22/17 11:36 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	123623	07/28/17 23:25	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 02:04	ARE	TAL PHX
Total/NA	Prep	200.7	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	2	123574	07/29/17 23:34	ARE	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 13:57	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:36	TEK	TAL PHX
Total/NA	Prep	245.1			123371	07/27/17 11:30	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123741	08/01/17 11:37	JTG	TAL PHX

Client Sample ID: FC-CCR-MW74-72217 — Lab Sample ID: 550-86694-19

Date Collected: 07/22/17 12:47 — **Matrix: Water**
Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	123623	07/29/17 00:02	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 02:10	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 01:08	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 14:02	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:45	TEK	TAL PHX
Total/NA	Prep	245.1			123371	07/27/17 11:30	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123741	08/01/17 11:38	JTG	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Client Sample ID: FC-CCR-MW75-72217

Lab Sample ID: 550-86694-20

Date Collected: 07/22/17 14:27

Matrix: Water

Date Received: 07/25/17 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	123623	07/29/17 01:15	JSS	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	123444	07/28/17 02:16	ARE	TAL PHX
Total/NA	Prep	200.7			123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	124466	08/09/17 01:16	UT	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	124252	08/07/17 14:09	TEK	TAL PHX
Total/NA	Prep	200.8			123321	07/27/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	126329	08/31/17 13:53	TEK	TAL PHX
Total/NA	Prep	245.1			123371	07/27/17 11:30	JTG	TAL PHX
Total/NA	Analysis	245.1		1	123741	08/01/17 11:44	JTG	TAL PHX

Laboratory References:

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

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

Laboratory: TestAmerica Phoenix

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arizona	State Program	9	AZ0728	06-09-18

Method Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-86694-2

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 PHX
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 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

86694

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

8/31/2017

Client Contact	Doug Lavarnway	Doug Lavarnway	7/24/2017	COC No:
APS Four Corners	928-587-0319	Lab Contact:	Carrier:	___1___ 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: Cholla				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 Rev 4.4 (B, Ca, Na, K, Mg)	EPA 300.0 (Cl, F, SO4)	SM 2540C (TDS)	SM 4500-HB (pH)	SM 2320B (HCO3)	Sample Specific Notes:
-01 FC-CCR-MW7-72217	7/22/2017	1546	G	W	2	N	x	x	x	x	x	x	
-02 FC-CCR-MW49A-72217	7/22/2017	1635	G	W	2	N	x	x	x	x	x	x	
-03 FC-CCR-MW60-72217	7/22/2017	1437	G	W	2	N	x	x	x	x	x	x	
-04 FC-CCR-MW61-72217	7/22/2017	1350	G	W	2	N	x	x	x	x	x	x	
-05 FC-CCR-MW62-72117	7/21/2017	1149	G	W	2	N	x	x	x	x	x	x	
-06 FC-CCR-MW63-72117	7/21/2017	1105	G	W	2	N	x	x	x	x	x	x	
-07 FC-CCR-MW64-72117	7/21/2017	1032	G	W	2	N	x	x	x	x	x	x	
-08 FC-CCR-MW65-72117	7/21/2017	942	G	W	2	N	x	x	x	x	x	x	
-09 FC-CCR-FD01-72117	7/21/2017	942	G	W	2	N	x	x	x	x	x	x	

550-86694 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:

25/23/0.8/0.9

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:
Doug Lavarnway	APS	7/25 849	D Rogers	Red J	7/25 8:49am
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA	Date/Time: 7/25/17 13:10

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

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

Chain of Custody Record

86694

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

8/31/2017

Client Contact	Doug Lavarnway	Doug Lavarnway	7/24/2017
APS Four Corners	928-587-0319	Lab Contact:	Carrier:
End of County Road 6675	**Analysis Turnaround Time**		
Fruitland, New Mexico 87416			
(928) 587-0319 Phone	TAT if different from Below _____		
(xxx) xxx-xxxx FAX			
Project Name: CCR			
Site: Cholla			
P O #			

COC No: 2 of 6 COCs

Sampler:

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

	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 Rev 4.4 (B, Ca, Na, K, Mg)	EPA 300.0 (Cl, F, SO4)	SM 2540C (TDS)	SM 4500-HB (pH)	SM 2320B (HCO3)	Sample Specific Notes:
-10	FC-CCR-MW66-72117	7/21/2017	1226	G	W	2	N	x	x	x	x	x	x	
-11	FC-CCR-MW67-72117	7/21/2017	1446	G	W	2	N	x	x	x	x	x	x	
-12	FC-CCR-MW68-72117	7/21/2017	1514	G	W	2	N	x	x	x	x	x	x	
-13	FC-CCR-MW69-72117	7/21/2017	1405	G	W	2	N	x	x	x	x	x	x	
-14	FC-CCR-MW70-72117	7/21/2017	1316	G	W	2	N	x	x	x	x	x	x	
-15	FC-CCR-MW71-72117	7/21/2017	1609	G	W	2	N	x	x	x	x	x	x	
-16	FC-CCR-MW72-72117	7/21/2017	1647	G	W	2	N	x	x	x	x	x	x	
-17	FC-CCR-MW73-72217	7/22/2017	1136	G	W	2	N	x	x	x	x	x	x	
-18	FC-CCR-FD02-72217	7/22/2017	1136	G	W	2	N	x	x	x	x	x	x	
-19	FC-CCR-MW74-72217	7/22/2017	1247	G	W	2	N	x	x	x	x	x	x	
-20	FC-CCR-MW75-72217	7/22/2017	1427	G	W	2	N	x	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:

2.5 | 2.3 | 0.8 | 0.9

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:
Doug Lavarnway	APS	7/25 8:49	D Rogers	Red J	7/25 8:49am
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA	Date/Time: 7/25/17 13:00

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

Chain of Custody Record

86694

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

8/31/2017

Client Contact	Doug Lavarnway	Doug Lavarnway	7/24/2017
APS Four Corners	928-587-0319	**Lab Contact:**	**Carrier:**
End of County Road 6675	**Analysis Turnaround Time**		
Fruitland, New Mexico 87416			
(928) 587-0319 Phone	TAT if different from Below _____		
(xxx) xxx-xxxx FAX			
Project Name: CCR			
Site: Cholla			
P O #			

COC No: 3 of 6 COCs

Sampler:

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

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:
-01 FC-CCR-MW7-72217	7/22/2017	1546	G	W	2	N	x	x	x	x	x	
-02 FC-CCR-MW49A-72217	7/22/2017	1635	G	W	2	N	x	x	x	x	x	
-03 FC-CCR-MW60-72217	7/22/2017	1437	G	W	2	N	x	x	x	x	x	
-04 FC-CCR-MW61-72217	7/22/2017	1350	G	W	2	N	x	x	x	x	x	
-05 FC-CCR-MW62-72117	7/21/2017	1149	G	W	2	N	x	x	x	x	x	
-06 FC-CCR-MW63-72117	7/21/2017	1105	G	W	2	N	x	x	x	x	x	
-07 FC-CCR-MW64-72117	7/21/2017	1032	G	W	2	N	x	x	x	x	x	
-08 FC-CCR-MW65-72117	7/21/2017	942	G	W	2	N	x	x	x	x	x	
-09 FC-CCR-FD01-72117	7/21/2017	942	G	W	2	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:

25/23/08/09

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:
Doug Lavarnway	APS	7/25 849	RRogers	RedJ	7/25 8:49am
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA	Date/Time: 7/25/17 13:00

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

Chain of Custody Record

86694

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

Client Contact	Doug Lavarnway	Doug Lavarnway	7/24/2017
APS Four Corners	928-587-0319	**Lab Contact:**	**Carrier:**
End of County Road 6675	**Analysis Turnaround Time**		
Fruitland, New Mexico 87416			
(928) 587-0319 Phone	TAT if different from Below _____		
(xxx) xxx-xxxx FAX			
Project Name: CCR			
Site: Cholla			
P O #			

COC No: ___4___ of __6___ COCs

Sampler:

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

	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:
-10	FC-CCR-MW66-72117	7/21/2017	1226	G	W	2	N	x	x	x	x	x	
-11	FC-CCR-MW67-72117	7/21/2017	1446	G	W	2	N	x	x	x	x	x	
-12	FC-CCR-MW68-72117	7/21/2017	1514	G	W	2	N	x	x	x	x	x	
-13	FC-CCR-MW69-72117	7/21/2017	1405	G	W	2	N	x	x	x	x	x	
-14	FC-CCR-MW70-72117	7/21/2017	1316	G	W	2	N	x	x	x	x	x	
-15	FC-CCR-MW71-72117	7/21/2017	1609	G	W	2	N	x	x	x	x	x	
-16	FC-CCR-MW72-72117	7/21/2017	1647	G	W	2	N	x	x	x	x	x	
-17	FC-CCR-MW73-72217	7/22/2017	1136	G	W	2	N	x	x	x	x	x	
-18	FC-CCR-FD02-72217	7/22/2017	1136	G	W	2	N	x	x	x	x	x	
-19	FC-CCR-MW74-72217	7/22/2017	1247	G	W	2	N	x	x	x	x	x	
-20	FC-CCR-MW75-72217	7/22/2017	1427	G	W	2	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:

2.5/2.3/0.8/0.9

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:
Doug Lavarnway	APS	7/25 849	[illegible]	Red T	7/25 8:49am
			Received in Laboratory by:	Company:	Date/Time:
			[illegible]	TA	7/25/17 1310

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-86694-2

Login Number: 86694
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.	False	Check done at department level as required.