TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 550-86694-1
Client Project/Site: Four Corners CCR
Revision: 1

For:
Arizona Public Service Company
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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: 550-86694-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
D1	Sample required dilution due to matrix.
D5	Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
D2	Sample required dilution due to high concentration of analyte.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.

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: 550-86694-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-86694-1

Revision
This report was revised on 8/11/17 to correct errors in the MS/MSD linking. This final report replaces the report generated on 8/11/17 at 10:06 am.

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 to bring the concentration of target analytes within the calibration range: 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) 200.7 Rev 4.4: The following sample was diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW74-72217 (550-86694-19). Elevated reporting limits (RLs) are provided.

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

General Chemistry
No 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: 550-86694-1

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: 550-86694-1

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

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	430	D2	400	mg/L	200		300.0	Total/NA
Sulfate	7500	D2	400	mg/L	200		300.0	Total/NA
Boron	7.6		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	400		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	620	M3	2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	36		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1700	M3	0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	500		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	500		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	10000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.2	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	520	D2	20	mg/L	10		300.0	Total/NA
Sulfate	18000	D2	400	mg/L	200		300.0	Total/NA
Boron	2.2		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	390		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	69		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium - DL	1100	D2	8.0	mg/L	4		200.7 Rev 4.4	Total/NA
Sodium - DL	5700	D2	2.0	mg/L	4		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	850		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	850		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	25000	D2	200	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.5	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	900	D2	200	mg/L	100		300.0	Total/NA
Fluoride	7.0	D1	0.80	mg/L	2		300.0	Total/NA
Sulfate	10000	D2	200	mg/L	100		300.0	Total/NA
Boron	64		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	450		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	540		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	28		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1200		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	130		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8300	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.6	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	310	D2	100	mg/L	50		300.0	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: 550-86694-1

Client Sample ID: FC-CCR-MW61-72217 (Continued) — 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
Sulfate	3700	D2	100	mg/L	50		300.0	Total/NA
Boron	39		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	130		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	21		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1100		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	88		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	88		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5600	D2	100	mg/L	1		SM 2540C	Total/NA
pH	8.5	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.3	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	99	D2	20	mg/L	10		300.0	Total/NA
Fluoride	1.5		0.40	mg/L	1		300.0	Total/NA
Sulfate	3300	D2	200	mg/L	100		300.0	Total/NA
Boron	2.1		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	540		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	340		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	10		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	650		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	760		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	760		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5400	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.3	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	98		2.0	mg/L	1		300.0	Total/NA
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Sulfate	2900	D2	100	mg/L	50		300.0	Total/NA
Boron	1.8		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	280		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.9		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	380		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	480		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	480		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	4600	D2	40	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.3	H5	0.1	Degrees C	1		SM 4500 H+ B	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: 550-86694-1

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
Chloride	52		2.0	mg/L	1		300.0	Total/NA
Fluoride	1.5		0.40	mg/L	1		300.0	Total/NA
Sulfate	370	D2	100	mg/L	50		300.0	Total/NA
Boron	0.59		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	88		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	37		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.2		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	130		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	210		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	790		20	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.1	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	53		2.0	mg/L	1		300.0	Total/NA
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Sulfate	470	D2	40	mg/L	20		300.0	Total/NA
Boron	0.76		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	110		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	63		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.7		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	150		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	310		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	310		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1000		20	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.7	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	53		2.0	mg/L	1		300.0	Total/NA
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Sulfate	470	D2	100	mg/L	50		300.0	Total/NA
Boron	0.77		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	110		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	63		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.7		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	150		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	310		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	310		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1000		20	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.0	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

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

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 550-86694-1

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

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	400	mg/L	200		300.0	Total/NA
Fluoride	25	D1	2.0	mg/L	5		300.0	Total/NA
Sulfate	12000	D2	400	mg/L	200		300.0	Total/NA
Calcium	450		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	44		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	620		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Boron - DL	140	D2	0.20	mg/L	4		200.7 Rev 4.4	Total/NA
Magnesium - DL	2600	D2	8.0	mg/L	4		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	260		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	260		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	19000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.6	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	2000	D2	400	mg/L	200		300.0	Total/NA
Fluoride	22	D1	2.0	mg/L	5		300.0	Total/NA
Sulfate	12000	D2	400	mg/L	200		300.0	Total/NA
Calcium	520		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	39		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	690		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Boron - DL	150	D2	0.20	mg/L	4		200.7 Rev 4.4	Total/NA
Magnesium - DL	2800	D2	8.0	mg/L	4		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	370		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	370		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	20000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.7	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	1500	D2	400	mg/L	200		300.0	Total/NA
Fluoride	9.6	D1	2.0	mg/L	5		300.0	Total/NA
Sulfate	10000	D2	400	mg/L	200		300.0	Total/NA
Calcium	470		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	17		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	670		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Boron - DL	130	D2	0.20	mg/L	4		200.7 Rev 4.4	Total/NA
Magnesium - DL	2300	D2	8.0	mg/L	4		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	550		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	550		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	17000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.8	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

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

This Detection Summary does not include radiochemical test results.

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
Chloride	1600	D2	400	mg/L	200		300.0	Total/NA
Fluoride	18	D1	2.0	mg/L	5		300.0	Total/NA
Sulfate	13000	D2	400	mg/L	200		300.0	Total/NA
Calcium	470		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	46		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	700		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Boron - DL	150	D2	0.20	mg/L	4		200.7 Rev 4.4	Total/NA
Magnesium - DL	2700	D2	8.0	mg/L	4		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	330		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	330		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	19000	D2	200	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.1	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	1100	D2	400	mg/L	200		300.0	Total/NA
Fluoride	2.1	D1	0.80	mg/L	2		300.0	Total/NA
Sulfate	6800	D2	400	mg/L	200		300.0	Total/NA
Calcium	510		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	19		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	870		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Boron - DL	100	D2	0.20	mg/L	4		200.7 Rev 4.4	Total/NA
Magnesium - DL	1300	D2	8.0	mg/L	4		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	500		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	500		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.1	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	590	D2	400	mg/L	200		300.0	Total/NA
Sulfate	10000	D2	400	mg/L	200		300.0	Total/NA
Boron	0.55		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	450		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	27		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1100		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium - DL	1800	D2	4.0	mg/L	2		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	420		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	420		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	15000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.1	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

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

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 550-86694-1

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

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	460	D2	10	mg/L	5		300.0	Total/NA
Sulfate	11000	D2	400	mg/L	200		300.0	Total/NA
Boron	0.23		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	450		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	29		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	760		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium - DL	2300	D2	8.0	mg/L	4		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	600		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	600		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	17000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.9	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	520	D2	400	mg/L	200		300.0	Total/NA
Sulfate	8000	D2	400	mg/L	200		300.0	Total/NA
Boron	1.6		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	840		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	37		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1800		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	800		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	800		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.6	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	500	D2	400	mg/L	200		300.0	Total/NA
Sulfate	7800	D2	400	mg/L	200		300.0	Total/NA
Boron	1.6		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	850		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	37		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1800		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	800		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	800		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.5	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

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

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	410	D2	200	mg/L	100		300.0	Total/NA
Fluoride	1.9	D1	0.80	mg/L	2		300.0	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: 550-86694-1

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

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	8400	D2	200	mg/L	100		300.0	Total/NA
Boron	1.6		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	710		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	22		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium - DL	2400	D2	2.0	mg/L	4		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	430		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	430		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.8	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.3	H5	0.1	Degrees C	1		SM 4500 H+ B	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
Chloride	300	D2	10	mg/L	5		300.0	Total/NA
Sulfate	4500	D2	400	mg/L	200		300.0	Total/NA
Boron	25		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	240		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	23		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1300		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	95		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	95		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6700	D2	100	mg/L	1		SM 2540C	Total/NA
pH	8.3	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.6	H5	0.1	Degrees C	1		SM 4500 H+ B	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: 550-86694-1

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
Chloride	430	D2	400	mg/L			07/27/17 21:27	200
Fluoride	ND	D1 D5	0.80	mg/L			07/27/17 20:32	2
Sulfate	7500	D2	400	mg/L			07/27/17 21:27	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7.6		0.050	mg/L		07/26/17 11:04	07/28/17 00:28	1
Calcium	400		2.0	mg/L		07/26/17 11:04	07/28/17 00:28	1
Magnesium	620	M3	2.0	mg/L		07/26/17 11:04	07/28/17 00:28	1
Potassium	36		0.50	mg/L		07/26/17 11:04	07/28/17 00:28	1
Sodium	1700	M3	0.50	mg/L		07/26/17 11:04	07/28/17 00:28	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	500		6.0	mg/L			07/26/17 15:57	1
Bicarbonate Alkalinity as CaCO3	500		6.0	mg/L			07/26/17 15:57	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 15:57	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 15:57	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 15:57	1
Total Dissolved Solids	10000	D2	100	mg/L			07/26/17 10:45	1
pH	7.5	H5	1.7	SU			07/27/17 17:43	1
Temperature	19.2	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	520	D2	20	mg/L			07/27/17 22:22	10
Fluoride	ND	D1 D5	4.0	mg/L			07/27/17 22:22	10
Sulfate	18000	D2	400	mg/L			07/27/17 22:41	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.2		0.050	mg/L		07/26/17 11:04	07/28/17 00:34	1
Calcium	390		2.0	mg/L		07/26/17 11:04	07/28/17 00:34	1
Potassium	69		0.50	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
Magnesium	1100	D2	8.0	mg/L		07/26/17 11:04	07/29/17 22:42	4
Sodium	5700	D2	2.0	mg/L		07/26/17 11:04	07/29/17 22:42	4

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	850		6.0	mg/L			07/27/17 12:35	1
Bicarbonate Alkalinity as CaCO3	850		6.0	mg/L			07/27/17 12:35	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/27/17 12:35	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/27/17 12:35	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/27/17 12:35	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

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	25000	D2	200	mg/L			07/26/17 10:45	1
pH	7.6	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.5	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	900	D2	200	mg/L			07/27/17 23:18	100
Fluoride	7.0	D1	0.80	mg/L			07/27/17 22:59	2
Sulfate	10000	D2	200	mg/L			07/27/17 23:18	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	64		0.050	mg/L		07/26/17 11:04	07/28/17 00:40	1
Calcium	450		2.0	mg/L		07/26/17 11:04	07/28/17 00:40	1
Magnesium	540		2.0	mg/L		07/26/17 11:04	07/28/17 00:40	1
Potassium	28		0.50	mg/L		07/26/17 11:04	07/28/17 00:40	1
Sodium	1200		0.50	mg/L		07/26/17 11:04	07/28/17 00:40	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	130		6.0	mg/L			07/26/17 17:01	1
Bicarbonate Alkalinity as CaCO3	130		6.0	mg/L			07/26/17 17:01	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:01	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 17:01	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:01	1
Total Dissolved Solids	8300	D2	100	mg/L			07/26/17 10:45	1
pH	7.6	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.6	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	310	D2	100	mg/L			07/28/17 00:31	50
Fluoride	1.3		0.40	mg/L			07/28/17 00:13	1
Sulfate	3700	D2	100	mg/L			07/28/17 00:31	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	39		0.050	mg/L		07/26/17 11:04	07/28/17 00:46	1
Calcium	490		2.0	mg/L		07/26/17 11:04	07/28/17 00:46	1
Magnesium	130		2.0	mg/L		07/26/17 11:04	07/28/17 00:46	1
Potassium	21		0.50	mg/L		07/26/17 11:04	07/28/17 00:46	1
Sodium	1100		0.50	mg/L		07/26/17 11:04	07/28/17 00:46	1

Client Sample Results

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

TestAmerica Job ID: 550-86694-1

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

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	88		6.0	mg/L			07/26/17 17:10	1
Bicarbonate Alkalinity as CaCO3	88		6.0	mg/L			07/26/17 17:10	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:10	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 17:10	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:10	1
Total Dissolved Solids	5600	D2	100	mg/L			07/26/17 10:45	1
pH	8.5	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.3	H5	0.1	Degrees C			07/27/17 17:43	1

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

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	99	D2	20	mg/L			07/28/17 01:08	10
Fluoride	1.5		0.40	mg/L			07/28/17 00:50	1
Sulfate	3300	D2	200	mg/L			08/01/17 14:28	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.1		0.050	mg/L		07/26/17 11:04	07/28/17 00:51	1
Calcium	540		2.0	mg/L		07/26/17 11:04	07/28/17 00:51	1
Magnesium	340		2.0	mg/L		07/26/17 11:04	07/28/17 00:51	1
Potassium	10		0.50	mg/L		07/26/17 11:04	07/28/17 00:51	1
Sodium	650		0.50	mg/L		07/26/17 11:04	07/28/17 00:51	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	760		6.0	mg/L			07/26/17 17:23	1
Bicarbonate Alkalinity as CaCO3	760		6.0	mg/L			07/26/17 17:23	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:23	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 17:23	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:23	1
Total Dissolved Solids	5400	D2	100	mg/L			07/26/17 10:45	1
pH	7.0	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.3	H5	0.1	Degrees C			07/27/17 17:43	1

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
Chloride	98		2.0	mg/L			07/28/17 01:26	1
Fluoride	2.0		0.40	mg/L			07/28/17 01:26	1
Sulfate	2900	D2	100	mg/L			07/28/17 01:45	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.8		0.050	mg/L		07/26/17 11:04	07/28/17 00:57	1

Client Sample Results

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

TestAmerica Job ID: 550-86694-1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	530		2.0	mg/L		07/26/17 11:04	07/28/17 00:57	1
Magnesium	280		2.0	mg/L		07/26/17 11:04	07/28/17 00:57	1
Potassium	6.9		0.50	mg/L		07/26/17 11:04	07/28/17 00:57	1
Sodium	380		0.50	mg/L		07/26/17 11:04	07/28/17 00:57	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	480		6.0	mg/L			07/26/17 17:52	1
Bicarbonate Alkalinity as CaCO3	480		6.0	mg/L			07/26/17 17:52	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:52	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 17:52	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:52	1
Total Dissolved Solids	4600	D2	40	mg/L			07/26/17 10:45	1
pH	7.2	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.3	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	52		2.0	mg/L			07/28/17 14:13	1
Fluoride	1.5		0.40	mg/L			07/28/17 14:13	1
Sulfate	370	D2	100	mg/L			08/01/17 14:46	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.59		0.050	mg/L		07/26/17 11:04	07/28/17 01:03	1
Calcium	88		2.0	mg/L		07/26/17 11:04	07/28/17 01:03	1
Magnesium	37		2.0	mg/L		07/26/17 11:04	07/28/17 01:03	1
Potassium	6.2		0.50	mg/L		07/26/17 11:04	07/28/17 01:03	1
Sodium	130		0.50	mg/L		07/26/17 11:04	07/28/17 01:03	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	210		6.0	mg/L			07/26/17 18:12	1
Bicarbonate Alkalinity as CaCO3	210		6.0	mg/L			07/26/17 18:12	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:12	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 18:12	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:12	1
Total Dissolved Solids	790		20	mg/L			07/26/17 10:45	1
pH	7.7	H5	1.7	SU			07/27/17 17:43	1
Temperature	19.1	H5	0.1	Degrees C			07/27/17 17:43	1

Client Sample Results

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

TestAmerica Job ID: 550-86694-1

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
Chloride	53		2.0	mg/L			07/28/17 16:03	1
Fluoride	2.0		0.40	mg/L			07/28/17 16:03	1
Sulfate	470	D2	40	mg/L			07/28/17 16:22	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.76		0.050	mg/L		07/26/17 11:04	07/28/17 01:06	1
Calcium	110		2.0	mg/L		07/26/17 11:04	07/28/17 01:06	1
Magnesium	63		2.0	mg/L		07/26/17 11:04	07/28/17 01:06	1
Potassium	3.7		0.50	mg/L		07/26/17 11:04	07/28/17 01:06	1
Sodium	150		0.50	mg/L		07/26/17 11:04	07/28/17 01:06	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	310		6.0	mg/L			07/26/17 18:21	1
Bicarbonate Alkalinity as CaCO3	310		6.0	mg/L			07/26/17 18:21	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:21	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 18:21	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:21	1
Total Dissolved Solids	1000		20	mg/L			07/26/17 10:45	1
pH	7.5	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.7	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	53		2.0	mg/L			07/28/17 16:40	1
Fluoride	2.0		0.40	mg/L			07/28/17 16:40	1
Sulfate	470	D2	100	mg/L			07/28/17 16:59	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.77		0.050	mg/L		07/26/17 11:04	07/28/17 01:09	1
Calcium	110		2.0	mg/L		07/26/17 11:04	07/28/17 01:09	1
Magnesium	63		2.0	mg/L		07/26/17 11:04	07/28/17 01:09	1
Potassium	3.7		0.50	mg/L		07/26/17 11:04	07/28/17 01:09	1
Sodium	150		0.50	mg/L		07/26/17 11:04	07/28/17 01:09	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	310		6.0	mg/L			07/26/17 18:31	1
Bicarbonate Alkalinity as CaCO3	310		6.0	mg/L			07/26/17 18:31	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:31	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 18:31	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:31	1
Total Dissolved Solids	1000		20	mg/L			07/26/17 10:45	1
pH	7.5	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.0	H5	0.1	Degrees C			07/27/17 17:43	1

Client Sample Results

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

TestAmerica Job ID: 550-86694-1

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
Chloride	1700	D2	400	mg/L			07/28/17 18:12	200
Fluoride	25	D1	2.0	mg/L			07/28/17 17:54	5
Sulfate	12000	D2	400	mg/L			07/28/17 18:12	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	450		2.0	mg/L		07/26/17 11:04	07/28/17 01:12	1
Potassium	44		0.50	mg/L		07/26/17 11:04	07/28/17 01:12	1
Sodium	620		0.50	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
Boron	140	D2	0.20	mg/L		07/26/17 11:04	07/29/17 22:48	4
Magnesium	2600	D2	8.0	mg/L		07/26/17 11:04	07/29/17 22:48	4

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	260		6.0	mg/L			07/26/17 18:40	1
Bicarbonate Alkalinity as CaCO3	260		6.0	mg/L			07/26/17 18:40	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:40	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 18:40	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:40	1
Total Dissolved Solids	19000	D2	100	mg/L			07/26/17 10:45	1
pH	7.3	H5	1.7	SU			07/27/17 17:43	1
Temperature	17.6	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	2000	D2	400	mg/L			07/28/17 18:49	200
Fluoride	22	D1	2.0	mg/L			07/28/17 18:31	5
Sulfate	12000	D2	400	mg/L			07/28/17 18:49	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	520		2.0	mg/L		07/26/17 11:04	07/28/17 01:23	1
Potassium	39		0.50	mg/L		07/26/17 11:04	07/28/17 01:23	1
Sodium	690		0.50	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
Boron	150	D2	0.20	mg/L		07/26/17 11:04	07/29/17 22:53	4
Magnesium	2800	D2	8.0	mg/L		07/26/17 11:04	07/29/17 22:53	4

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	370		6.0	mg/L			07/26/17 18:48	1
Bicarbonate Alkalinity as CaCO3	370		6.0	mg/L			07/26/17 18:48	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

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:48	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 18:48	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:48	1
Total Dissolved Solids	**20000**	**D2**	100	mg/L			07/26/17 10:45	1
pH	**7.1**	**H5**	1.7	SU			07/27/17 17:43	1
Temperature	**17.7**	**H5**	0.1	Degrees C			07/27/17 17:43	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
Chloride	**1500**	**D2**	400	mg/L			07/28/17 19:26	200
Fluoride	**9.6**	**D1**	2.0	mg/L			07/28/17 19:07	5
Sulfate	**10000**	**D2**	400	mg/L			07/28/17 19:26	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**470**		2.0	mg/L		07/26/17 11:04	07/28/17 01:29	1
Potassium	**17**		0.50	mg/L		07/26/17 11:04	07/28/17 01:29	1
Sodium	**670**		0.50	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
Boron	**130**	**D2**	0.20	mg/L		07/26/17 11:04	07/29/17 23:05	4
Magnesium	**2300**	**D2**	8.0	mg/L		07/26/17 11:04	07/29/17 23:05	4

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**550**		6.0	mg/L			07/26/17 18:59	1
Bicarbonate Alkalinity as CaCO3	**550**		6.0	mg/L			07/26/17 18:59	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:59	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 18:59	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 18:59	1
Total Dissolved Solids	**17000**	**D2**	100	mg/L			07/26/17 10:45	1
pH	**7.0**	**H5**	1.7	SU			07/27/17 17:43	1
Temperature	**17.8**	**H5**	0.1	Degrees C			07/27/17 17:43	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
Chloride	**1600**	**D2**	400	mg/L			08/01/17 15:05	200
Fluoride	**18**	**D1**	2.0	mg/L			07/28/17 19:44	5
Sulfate	**13000**	**D2**	400	mg/L			07/28/17 20:03	200

Client Sample Results

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

TestAmerica Job ID: 550-86694-1

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: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	470		2.0	mg/L		07/26/17 11:04	07/28/17 01:35	1
Potassium	46		0.50	mg/L		07/26/17 11:04	07/28/17 01:35	1
Sodium	700		0.50	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
Boron	150	D2	0.20	mg/L		07/26/17 11:04	07/29/17 23:11	4
Magnesium	2700	D2	8.0	mg/L		07/26/17 11:04	07/29/17 23:11	4

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		6.0	mg/L			07/26/17 19:08	1
Bicarbonate Alkalinity as CaCO3	330		6.0	mg/L			07/26/17 19:08	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 19:08	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 19:08	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 19:08	1
Total Dissolved Solids	19000	D2	200	mg/L			07/28/17 11:32	1
pH	7.4	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.1	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	1100	D2	400	mg/L			08/01/17 15:23	200
Fluoride	2.1	D1	0.80	mg/L			07/28/17 20:21	2
Sulfate	6800	D2	400	mg/L			07/28/17 20:39	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	510		2.0	mg/L		07/26/17 11:04	07/28/17 01:41	1
Potassium	19		0.50	mg/L		07/26/17 11:04	07/28/17 01:41	1
Sodium	870		0.50	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
Boron	100	D2	0.20	mg/L		07/26/17 11:04	07/29/17 23:16	4
Magnesium	1300	D2	8.0	mg/L		07/26/17 11:04	07/29/17 23:16	4

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	500		6.0	mg/L			07/26/17 19:19	1
Bicarbonate Alkalinity as CaCO3	500		6.0	mg/L			07/26/17 19:19	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 19:19	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 19:19	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 19:19	1
Total Dissolved Solids	12000	D2	100	mg/L			07/26/17 10:45	1
pH	7.0	H5	1.7	SU			07/27/17 17:43	1
Temperature	19.1	H5	0.1	Degrees C			07/27/17 17:43	1

Client Sample Results

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

TestAmerica Job ID: 550-86694-1

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
Chloride	590	D2	400	mg/L			07/28/17 21:53	200
Fluoride	ND	D1 D5	2.0	mg/L			08/01/17 15:42	5
Sulfate	10000	D2	400	mg/L			07/28/17 21:53	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.55		0.050	mg/L		07/26/17 11:04	07/28/17 01:47	1
Calcium	450		2.0	mg/L		07/26/17 11:04	07/28/17 01:47	1
Potassium	27		0.50	mg/L		07/26/17 11:04	07/28/17 01:47	1
Sodium	1100		0.50	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
Magnesium	1800	D2	4.0	mg/L		07/26/17 11:04	07/29/17 23:22	2

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	420		6.0	mg/L			07/26/17 19:28	1
Bicarbonate Alkalinity as CaCO3	420		6.0	mg/L			07/26/17 19:28	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 19:28	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 19:28	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 19:28	1
Total Dissolved Solids	15000	D2	100	mg/L			07/26/17 10:45	1
pH	7.1	H5	1.7	SU			07/27/17 17:43	1
Temperature	19.1	H5	0.1	Degrees C			07/27/17 17:43	1

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
Chloride	460	D2	10	mg/L			07/28/17 22:11	5
Fluoride	ND	D1 D5	2.0	mg/L			07/28/17 22:11	5
Sulfate	11000	D2	400	mg/L			07/28/17 22:30	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.23		0.050	mg/L		07/26/17 11:04	07/28/17 01:53	1
Calcium	450		2.0	mg/L		07/26/17 11:04	07/28/17 01:53	1
Potassium	29		0.50	mg/L		07/26/17 11:04	07/28/17 01:53	1
Sodium	760		0.50	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
Magnesium	2300	D2	8.0	mg/L		07/26/17 11:04	07/29/17 23:28	4

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	600		6.0	mg/L			07/26/17 20:06	1
Bicarbonate Alkalinity as CaCO3	600		6.0	mg/L			07/26/17 20:06	1

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

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 20:06	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 20:06	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 20:06	1
Total Dissolved Solids	**17000**	**D2**	100	mg/L			07/26/17 10:45	1
pH	**7.1**	**H5**	1.7	SU			07/27/17 17:43	1
Temperature	**18.9**	**H5**	0.1	Degrees C			07/27/17 17:43	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
Chloride	**520**	**D2**	400	mg/L			07/28/17 23:07	200
Fluoride	ND	D1 D5	0.80	mg/L			07/28/17 22:48	2
Sulfate	**8000**	**D2**	400	mg/L			07/28/17 23:07	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.050	mg/L		07/26/17 11:04	07/28/17 01:58	1
Calcium	**490**		2.0	mg/L		07/26/17 11:04	07/28/17 01:58	1
Magnesium	**840**		2.0	mg/L		07/26/17 11:04	07/28/17 01:58	1
Potassium	**37**		0.50	mg/L		07/26/17 11:04	07/28/17 01:58	1
Sodium	**1800**		0.50	mg/L		07/26/17 11:04	07/28/17 01:58	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**800**		6.0	mg/L			07/27/17 12:35	1
Bicarbonate Alkalinity as CaCO3	**800**		6.0	mg/L			07/27/17 12:35	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/27/17 12:35	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/27/17 12:35	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/27/17 12:35	1
Total Dissolved Solids	**12000**	**D2**	100	mg/L			07/26/17 10:45	1
pH	**7.1**	**H5**	1.7	SU			07/27/17 17:43	1
Temperature	**18.6**	**H5**	0.1	Degrees C			07/27/17 17:43	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
Chloride	**500**	**D2**	400	mg/L			07/28/17 23:43	200
Fluoride	ND	D1 D5	2.0	mg/L			07/28/17 23:25	5
Sulfate	**7800**	**D2**	400	mg/L			07/28/17 23:43	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.050	mg/L		07/26/17 11:04	07/28/17 02:04	1
Calcium	**490**		2.0	mg/L		07/26/17 11:04	07/28/17 02:04	1
Magnesium	**850**		2.0	mg/L		07/26/17 11:04	07/28/17 02:04	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: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	37		0.50	mg/L		07/26/17 11:04	07/28/17 02:04	1
Sodium	1800		0.50	mg/L		07/26/17 11:04	07/28/17 02:04	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	800		6.0	mg/L			07/27/17 12:35	1
Bicarbonate Alkalinity as CaCO3	800		6.0	mg/L			07/27/17 12:35	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/27/17 12:35	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/27/17 12:35	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/27/17 12:35	1
Total Dissolved Solids	12000	D2	100	mg/L			07/26/17 10:45	1
pH	7.1	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.5	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	410	D2	200	mg/L			07/29/17 00:20	100
Fluoride	1.9	D1	0.80	mg/L			07/29/17 00:02	2
Sulfate	8400	D2	200	mg/L			07/29/17 00:20	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.6		0.050	mg/L		07/26/17 11:04	07/28/17 02:10	1
Calcium	420		2.0	mg/L		07/26/17 11:04	07/28/17 02:10	1
Magnesium	710		2.0	mg/L		07/26/17 11:04	07/28/17 02:10	1
Potassium	22		0.50	mg/L		07/26/17 11:04	07/28/17 02:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	2400	D2	2.0	mg/L		07/26/17 11:04	08/09/17 01:14	4

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	430		6.0	mg/L			07/26/17 20:41	1
Bicarbonate Alkalinity as CaCO3	430		6.0	mg/L			07/26/17 20:41	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 20:41	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 20:41	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 20:41	1
Total Dissolved Solids	12000	D2	100	mg/L			07/26/17 10:45	1
pH	7.8	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.3	H5	0.1	Degrees C			07/27/17 17:43	1

Client Sample Results

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

TestAmerica Job ID: 550-86694-1

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
Chloride	300	D2	10	mg/L			07/29/17 01:15	5
Fluoride	ND	D1 D5	2.0	mg/L			07/29/17 01:15	5
Sulfate	4500	D2	400	mg/L			07/29/17 01:34	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	25		0.050	mg/L		07/26/17 11:04	07/28/17 02:16	1
Calcium	460		2.0	mg/L		07/26/17 11:04	07/28/17 02:16	1
Magnesium	240		2.0	mg/L		07/26/17 11:04	07/28/17 02:16	1
Potassium	23		0.50	mg/L		07/26/17 11:04	07/28/17 02:16	1
Sodium	1300		0.50	mg/L		07/26/17 11:04	07/28/17 02:16	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	95		6.0	mg/L			07/26/17 20:49	1
Bicarbonate Alkalinity as CaCO3	95		6.0	mg/L			07/26/17 20:49	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 20:49	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 20:49	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 20:49	1
Total Dissolved Solids	6700	D2	100	mg/L			07/27/17 10:19	1
pH	8.3	H5	1.7	SU			07/27/17 17:43	1
Temperature	18.6	H5	0.1	Degrees C			07/27/17 17:43	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
Chloride	ND		2.0	mg/L			07/27/17 19:00	1
Fluoride	ND		0.40	mg/L			07/27/17 19:00	1
Sulfate	ND		2.0	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
Chloride	20.0	20.5		mg/L		103	90 - 110
Fluoride	4.00	4.21		mg/L		105	90 - 110
Sulfate	20.0	20.8		mg/L		104	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
Chloride	20.0	20.6		mg/L		103	90 - 110	0	20
Fluoride	4.00	4.23		mg/L		106	90 - 110	1	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	0	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	D1 D5	8.00	8.36	D1	mg/L		100	80 - 120

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
Chloride	430	D2	4000	4460	D2	mg/L		101	80 - 120
Sulfate	7500	D2	4000	11100	D2	mg/L		90	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	D1 D5	8.00	8.34	D1	mg/L		99	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

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
Chloride	430	D2	4000	4450	D2	mg/L		101	80 - 120	0	20
Sulfate	7500	D2	4000	10900	D2	mg/L		86	80 - 120	1	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
Chloride	ND		2.0	mg/L			07/28/17 12:41	1
Fluoride	ND		0.40	mg/L			07/28/17 12:41	1
Sulfate	ND		2.0	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
Chloride	20.0	20.5		mg/L		102	90 - 110
Fluoride	4.00	4.26		mg/L		106	90 - 110
Sulfate	20.0	20.8		mg/L		104	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
Chloride	20.0	20.5		mg/L		103	90 - 110	0	20
Fluoride	4.00	4.27		mg/L		107	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	0	20

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
Chloride	52		20.0	70.1		mg/L		93	80 - 120
Fluoride	1.5		4.00	5.88		mg/L		110	80 - 120
Sulfate	270	E2 M3	20.0	275	E2 M3	mg/L		16	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
Chloride	52		20.0	69.8		mg/L		91	80 - 120	1	20
Fluoride	1.5		4.00	5.80		mg/L		108	80 - 120	1	20
Sulfate	270	E2 M3	20.0	275	E2 M3	mg/L		14	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

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
Chloride	ND		2.0		mg/L			08/01/17 12:01	1
Fluoride	ND		0.40		mg/L			08/01/17 12:01	1
Sulfate	ND		2.0		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
Chloride	20.0	20.5		mg/L		102	90 - 110
Fluoride	4.00	4.19		mg/L		105	90 - 110
Sulfate	20.0	20.9		mg/L		104	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
Chloride	20.0	20.6		mg/L		103	90 - 110	0	20
Fluoride	4.00	4.21		mg/L		105	90 - 110	1	20
Sulfate	20.0	20.9		mg/L		104	90 - 110	0	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
Chloride	23		20.0	44.1		mg/L		106	80 - 120
Fluoride	ND		4.00	4.16		mg/L		101	80 - 120
Sulfate	60		20.0	78.4		mg/L		91	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
Chloride	23		20.0	43.9		mg/L		105	80 - 120	0	20
Fluoride	ND		4.00	4.17		mg/L		102	80 - 120	0	20
Sulfate	60		20.0	78.0		mg/L		89	80 - 120	1	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
Boron	ND		0.050		mg/L		07/26/17 11:04	07/28/17 00:08	1
Calcium	ND		2.0		mg/L		07/26/17 11:04	07/28/17 00:08	1

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

Lab Sample ID: MB 550-123250/1-A
Matrix: Water
Analysis Batch: 123444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123250

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	ND		2.0	mg/L		07/26/17 11:04	07/28/17 00:08	1
Potassium	ND		0.50	mg/L		07/26/17 11:04	07/28/17 00:08	1
Sodium	ND		0.50	mg/L		07/26/17 11:04	07/28/17 00:08	1

Lab Sample ID: MB 550-123250/1-A
Matrix: Water
Analysis Batch: 124466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123250

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	mg/L		07/26/17 11:04	08/08/17 23:59	1
Calcium	ND		2.0	mg/L		07/26/17 11:04	08/08/17 23:59	1
Magnesium	ND		2.0	mg/L		07/26/17 11:04	08/08/17 23:59	1
Potassium	ND		0.50	mg/L		07/26/17 11:04	08/08/17 23:59	1
Sodium	ND		0.50	mg/L		07/26/17 11:04	08/08/17 23:59	1

Lab Sample ID: LCS 550-123250/2-A
Matrix: Water
Analysis Batch: 123444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.02		mg/L		102	85 - 115
Calcium	21.0	22.0		mg/L		105	85 - 115
Magnesium	21.0	22.1		mg/L		105	85 - 115
Potassium	20.0	21.3		mg/L		106	85 - 115
Sodium	20.0	20.0		mg/L		100	85 - 115

Lab Sample ID: LCS 550-123250/2-A
Matrix: Water
Analysis Batch: 124466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.01		mg/L		101	85 - 115
Calcium	21.0	22.1		mg/L		105	85 - 115
Magnesium	21.0	22.0		mg/L		105	85 - 115
Potassium	20.0	20.8		mg/L		104	85 - 115
Sodium	20.0	20.5		mg/L		103	85 - 115

Lab Sample ID: LCSD 550-123250/3-A
Matrix: Water
Analysis Batch: 123444

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123250

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.02		mg/L		102	85 - 115	0	20
Calcium	21.0	21.8		mg/L		104	85 - 115	1	20
Magnesium	21.0	21.9		mg/L		104	85 - 115	1	20
Potassium	20.0	21.1		mg/L		106	85 - 115	1	20
Sodium	20.0	20.2		mg/L		101	85 - 115	1	20

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

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
Boron			1.00	0.998		mg/L		100	85 - 115	1	20
Calcium			21.0	21.9		mg/L		104	85 - 115	1	20
Magnesium			21.0	21.8		mg/L		104	85 - 115	1	20
Potassium			20.0	20.7		mg/L		104	85 - 115	1	20
Sodium			20.0	20.4		mg/L		102	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		
Boron	7.6		1.00	8.35	M3	mg/L		76	70 - 130		
Calcium	400		21.0	420	M3	mg/L		73	70 - 130		
Magnesium	620	M3	21.0	626	M3	mg/L		22	70 - 130		
Potassium	36		20.0	57.3		mg/L		104	70 - 130		
Sodium	1700	M3	20.0	1710	M3	mg/L		-115	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
Boron	7.6		1.00	8.50	M3	mg/L		90	70 - 130	2	20
Calcium	400		21.0	428	M3	mg/L		113	70 - 130	2	20
Magnesium	620	M3	21.0	643	M3	mg/L		106	70 - 130	3	20
Potassium	36		20.0	59.0		mg/L		113	70 - 130	3	20
Sodium	1700	M3	20.0	1780	M3	mg/L		235	70 - 130	4	20

Lab Sample ID: 550-86694-D-1-A MS — **Client Sample ID: 550-86694-D-1-A MS**
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		
Boron	7.6	M3	1.00	8.28	M3	mg/L		67	70 - 130		
Calcium	420	M3	21.0	426	M3	mg/L		9	70 - 130		
Magnesium	610	M3	21.0	607	M3	mg/L		-26	70 - 130		
Potassium	36		20.0	56.8		mg/L		102	70 - 130		
Sodium	1800	M3	20.0	1710	M3	mg/L		-252	70 - 130		

Lab Sample ID: 550-86694-D-1-B MSD — **Client Sample ID: 550-86694-D-1-B MSD**
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
Boron	7.6	M3	1.00	8.48	M3	mg/L		88	70 - 130	2	20
Calcium	420	M3	21.0	446	M3	mg/L		106	70 - 130	5	20
Magnesium	610	M3	21.0	632	M3	mg/L		93	70 - 130	4	20
Potassium	36		20.0	59.3		mg/L		115	70 - 130	4	20
Sodium	1800	M3	20.0	1770	M3	mg/L		58	70 - 130	4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-123315/35
Matrix: Water
Analysis Batch: 123315

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:41	1
Bicarbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:41	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:41	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 17:41	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 17:41	1

Lab Sample ID: MB 550-123315/7
Matrix: Water
Analysis Batch: 123315

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 14:58	1
Bicarbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 14:58	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 14:58	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/26/17 14:58	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/26/17 14:58	1

Lab Sample ID: LCS 550-123315/34
Matrix: Water
Analysis Batch: 123315

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	250	256		mg/L		102	90 - 110

Lab Sample ID: LCS 550-123315/6
Matrix: Water
Analysis Batch: 123315

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	250	254		mg/L		102	90 - 110

Lab Sample ID: LCSD 550-123315/20
Matrix: Water
Analysis Batch: 123315

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	250	259		mg/L		104	90 - 110	2	20

Lab Sample ID: LCSD 550-123315/48
Matrix: Water
Analysis Batch: 123315

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	250	257		mg/L		103	90 - 110	0	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-86694-1 DU — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123315

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	500			506		mg/L				0.6	20
Bicarbonate Alkalinity as CaCO3	500			506		mg/L				0.6	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: 550-86694-6 DU — **Client Sample ID: FC-CCR-MW63-72117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123315

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	480			484		mg/L				1	20
Bicarbonate Alkalinity as CaCO3	480			484		mg/L				1	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: 550-86697-E-9 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123315

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: MB 550-123404/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123404

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			07/27/17 12:35	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			07/27/17 12:35	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			07/27/17 12:35	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			07/27/17 12:35	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			07/27/17 12:35	1

Lab Sample ID: LCS 550-123404/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123404

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			250	250		mg/L		100	90 - 110		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-123404/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123404

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	246		mg/L		98	90 - 110	2	20

Lab Sample ID: 550-86697-E-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123404

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	96			96.0		mg/L				0	20
Bicarbonate Alkalinity as CaCO3	96			96.0		mg/L				0	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-123247/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123247

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			07/26/17 10:45	1

Lab Sample ID: LCS 550-123247/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123247

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	944		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-123247/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123247

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	964		mg/L		96	90 - 110	2	10

Lab Sample ID: 550-86694-1 DU — **Client Sample ID: FC-CCR-MW7-72217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123247

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	10000	D2		10300	D2	mg/L				0.1	10

Lab Sample ID: 550-86694-6 DU — **Client Sample ID: FC-CCR-MW63-72117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123247

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	4600	D2		4460	D2	mg/L				2	10

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 550-123351/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123351

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			07/27/17 10:19	1

Lab Sample ID: LCS 550-123351/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123351

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	950		mg/L		95	90 - 110		

Lab Sample ID: LCSD 550-123351/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123351

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	962		mg/L		96	90 - 110	1	10

Lab Sample ID: 550-86761-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123351

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1500			1450		mg/L				0.7	10

Lab Sample ID: MB 550-123466/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123466

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			07/28/17 11:32	1

Lab Sample ID: LCS 550-123466/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123466

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	962		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-123466/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123466

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	968		mg/L		97	90 - 110	1	10

Lab Sample ID: 550-86880-H-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123466

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2200	D2		2140	D2	mg/L				2	10

QC Sample Results

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

TestAmerica Job ID: 550-86694-1

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-123422/1
Matrix: Water
Analysis Batch: 123422

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		99.9	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-123422/13
Matrix: Water
Analysis Batch: 123422

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100.1	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-123422/25
Matrix: Water
Analysis Batch: 123422

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Lab Sample ID: 550-86694-1 DU
Matrix: Water
Analysis Batch: 123422

Client Sample ID: FC-CCR-MW7-72217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.5	H5		7.5	H5	SU				0	5
Temperature	19.2	H5		19.1	H5	Degrees C				0.5	

Lab Sample ID: 550-86694-11 DU
Matrix: Water
Analysis Batch: 123422

Client Sample ID: FC-CCR-MW67-72117
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.1	H5		7.1	H5	SU				0.1	5
Temperature	17.7	H5		17.5	H5	Degrees C				1	

QC Association Summary

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

TestAmerica Job ID: 550-86694-1

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	
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	300.0	
550-86694-2	FC-CCR-MW49A-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	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	300.0	
550-86694-4	FC-CCR-MW61-72217	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	
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	300.0	
550-86694-6	FC-CCR-MW63-72117	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 MS	FC-CCR-MW7-72217	Total/NA	Water	300.0	
550-86694-1 MSD	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	
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	300.0	
550-86694-9	FC-CCR-FD01-72117	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	
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	300.0	
550-86694-11	FC-CCR-MW67-72117	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	
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	300.0	
550-86694-13	FC-CCR-MW69-72117	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	
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	300.0	
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	300.0	
550-86694-16	FC-CCR-MW72-72117	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	
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	300.0	
550-86694-18	FC-CCR-FD02-72217	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	
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	300.0	
550-86694-20	FC-CCR-MW75-72217	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	

HPLC/IC (Continued)

Analysis Batch: 123623 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
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
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	300.0	
550-86694-7	FC-CCR-MW64-72117	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	
550-86694-15	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	FC-CCR-MW49A-72217	Total/NA	Water	200.7	
550-86694-2 - DL	FC-CCR-MW49A-72217	Total/NA	Water	200.7	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	200.7	
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	FC-CCR-MW66-72117	Total/NA	Water	200.7	
550-86694-10 - DL	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	FC-CCR-MW69-72117	Total/NA	Water	200.7	
550-86694-13 - DL	FC-CCR-MW69-72117	Total/NA	Water	200.7	
550-86694-14 - DL	FC-CCR-MW70-72117	Total/NA	Water	200.7	
550-86694-14	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	
550-86694-19 - DL	FC-CCR-MW74-72217	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	

Metals (Continued)

Prep Batch: 123250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
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	
550-86694-D-1-A MS	550-86694-D-1-A MS	Total/NA	Water	200.7	
550-86694-D-1-B MSD	550-86694-D-1-B MSD	Total/NA	Water	200.7	

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
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: 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
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

Analysis Batch: 124466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-19 - DL	FC-CCR-MW74-72217	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

Metals (Continued)

Analysis Batch: 124466 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 550-123250/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-D-1-A MS	550-86694-D-1-A MS	Total/NA	Water	200.7 Rev 4.4	123250
550-86694-D-1-B MSD	550-86694-D-1-B MSD	Total/NA	Water	200.7 Rev 4.4	123250

General Chemistry

Analysis Batch: 123247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	SM 2540C	
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	SM 2540C	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	SM 2540C	
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	SM 2540C	
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	SM 2540C	
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	SM 2540C	
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	SM 2540C	
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	SM 2540C	
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	SM 2540C	
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	SM 2540C	
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	SM 2540C	
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	SM 2540C	
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	SM 2540C	
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	SM 2540C	
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	SM 2540C	
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	SM 2540C	
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	SM 2540C	
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	SM 2540C	
MB 550-123247/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-123247/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-123247/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-86694-1 DU	FC-CCR-MW7-72217	Total/NA	Water	SM 2540C	
550-86694-6 DU	FC-CCR-MW63-72117	Total/NA	Water	SM 2540C	

Analysis Batch: 123315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	SM 2320B	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	SM 2320B	
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	SM 2320B	
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	SM 2320B	
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	SM 2320B	
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	SM 2320B	
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	SM 2320B	
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	SM 2320B	
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	SM 2320B	
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	SM 2320B	
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	SM 2320B	
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	SM 2320B	
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	SM 2320B	
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	SM 2320B	
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	SM 2320B	
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 123315 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	SM 2320B	
MB 550-123315/35	Method Blank	Total/NA	Water	SM 2320B	
MB 550-123315/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-123315/34	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 550-123315/6	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-123315/20	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LCSD 550-123315/48	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-86694-1 DU	FC-CCR-MW7-72217	Total/NA	Water	SM 2320B	
550-86694-6 DU	FC-CCR-MW63-72117	Total/NA	Water	SM 2320B	
550-86697-E-9 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 123351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	SM 2540C	
MB 550-123351/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-123351/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-123351/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-86761-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 123404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-123404/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-123404/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-123404/9	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-86697-E-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 123405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	SM 2320B	
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	SM 2320B	
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	SM 2320B	

Analysis Batch: 123422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-1	FC-CCR-MW7-72217	Total/NA	Water	SM 4500 H+ B	
550-86694-2	FC-CCR-MW49A-72217	Total/NA	Water	SM 4500 H+ B	
550-86694-3	FC-CCR-MW60-72217	Total/NA	Water	SM 4500 H+ B	
550-86694-4	FC-CCR-MW61-72217	Total/NA	Water	SM 4500 H+ B	
550-86694-5	FC-CCR-MW62-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-6	FC-CCR-MW63-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-7	FC-CCR-MW64-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-8	FC-CCR-MW65-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-9	FC-CCR-FD01-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-10	FC-CCR-MW66-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-11	FC-CCR-MW67-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-12	FC-CCR-MW68-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-14	FC-CCR-MW70-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-15	FC-CCR-MW71-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-16	FC-CCR-MW72-72117	Total/NA	Water	SM 4500 H+ B	
550-86694-17	FC-CCR-MW73-72217	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 123422 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-18	FC-CCR-FD02-72217	Total/NA	Water	SM 4500 H+ B	
550-86694-19	FC-CCR-MW74-72217	Total/NA	Water	SM 4500 H+ B	
550-86694-20	FC-CCR-MW75-72217	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-123422/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-123422/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-123422/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-86694-1 DU	FC-CCR-MW7-72217	Total/NA	Water	SM 4500 H+ B	
550-86694-11 DU	FC-CCR-MW67-72117	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 123466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-86694-13	FC-CCR-MW69-72117	Total/NA	Water	SM 2540C	
MB 550-123466/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-123466/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-123466/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-86880-H-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Lab Chronicle

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

TestAmerica Job ID: 550-86694-1

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	Analysis	300.0		200	123499	07/27/17 21:27	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	Analysis	SM 2320B		1	123315	07/26/17 15:57	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		200	123499	07/27/17 22:41	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	Analysis	SM 2320B		1	123405	07/27/17 12:35	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		100	123499	07/27/17 23:18	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	Analysis	SM 2320B		1	123315	07/26/17 17:01	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-86694-1

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

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	Analysis	300.0		50	123499	07/28/17 00:31	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	Analysis	SM 2320B		1	123315	07/26/17 17:10	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		10	123499	07/28/17 01:08	JAE	TAL PHX
Total/NA	Analysis	300.0		100	123845	08/01/17 14:28	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 00:51	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	123315	07/26/17 17:23	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		50	123499	07/28/17 01:45	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	Analysis	SM 2320B		1	123315	07/26/17 17:52	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-86694-1

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

Date Collected: 07/21/17 10:32
Date Received: 07/25/17 13:00
Matrix: Water

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	Analysis	300.0		50	123845	08/01/17 14:46	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	Analysis	SM 2320B		1	123315	07/26/17 18:12	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	TAL PHX

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

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

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	Analysis	300.0		20	123623	07/28/17 16:22	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	Analysis	SM 2320B		1	123315	07/26/17 18:21	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	TAL PHX

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

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

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	Analysis	300.0		50	123623	07/28/17 16:59	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	Analysis	SM 2320B		1	123315	07/26/17 18:31	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-86694-1

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

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	Analysis	300.0		200	123623	07/28/17 18:12	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	Analysis	SM 2320B		1	123315	07/26/17 18:40	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		200	123623	07/28/17 18:49	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	Analysis	SM 2320B		1	123315	07/26/17 18:48	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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
Total/NA	Analysis	300.0		200	123623	07/28/17 19:26	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 01:29	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	Analysis	SM 2320B		1	123315	07/26/17 18:59	DGS	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-86694-1

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

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		200	123623	07/28/17 20:03	JSS	TAL PHX
Total/NA	Analysis	300.0		200	123845	08/01/17 15:05	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	Analysis	SM 2320B		1	123315	07/26/17 19:08	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123466		YET	TAL PHX
					(Start)	07/28/17 11:32		
					(End)	07/31/17 10:30		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		200	123623	07/28/17 20:39	JSS	TAL PHX
Total/NA	Analysis	300.0		200	123845	08/01/17 15:23	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	Analysis	SM 2320B		1	123315	07/26/17 19:19	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-86694-1

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

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	123623	07/28/17 21:53	JSS	TAL PHX
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	Analysis	SM 2320B		1	123315	07/26/17 19:28	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		200	123623	07/28/17 22:30	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	Analysis	SM 2320B		1	123315	07/26/17 20:06	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		200	123623	07/28/17 23:07	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 01:58	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	123405	07/27/17 12:35	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		

Lab Chronicle

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

TestAmerica Job ID: 550-86694-1

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

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		200	123623	07/28/17 23:43	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	Analysis	SM 2320B		1	123405	07/27/17 12:35	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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	Analysis	300.0		100	123623	07/29/17 00:20	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	DL		123250	07/26/17 11:04	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4	DL	4	124466	08/09/17 01:14	UT	TAL PHX
Total/NA	Analysis	SM 2320B		1	123315	07/26/17 20:41	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123247		YET	TAL PHX
					(Start)	07/26/17 10:45		
					(End)	07/27/17 11:15		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	TAL PHX

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	Analysis	300.0		200	123623	07/29/17 01:34	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: 550-86694-1

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

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 02:16	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	123315	07/26/17 20:49	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	123351		YET	TAL PHX
					(Start)	07/27/17 10:19		
					(End)	07/28/17 10:30		
Total/NA	Analysis	SM 4500 H+ B		1	123422	07/27/17 17:43	JSS	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: 550-86694-1

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: 550-86694-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	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.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",

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.

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: ___1___ 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:
-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	DRogers	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 13:10

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: 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

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-86694-1

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.