TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 550-84943-1
Client Project/Site: CCR

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

Attn: Doug Lavarnway

Authorized for release by:
7/6/2017 4:24:35 PM

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

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D5	Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample.
D2	Sample required dilution due to high concentration of analyte.
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
D2	Sample required dilution due to high concentration of analyte.
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.

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: 550-84943-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-84943-1

Comments
No additional comments.

Receipt
The samples were received on 6/24/2017 8:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.6º C, 1.0º C, 1.1º C and 1.3º C.

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

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

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

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-84943-1	FC-CCR-MW7-62217	Water	06/22/17 13:40	06/24/17 08:25
550-84943-2	FC-CCR-MW49A-62217	Water	06/22/17 14:27	06/24/17 08:25
550-84943-3	FC-CCR-MW60-62217	Water	06/22/17 11:11	06/24/17 08:25
550-84943-4	FC-CCR-MW61-62217	Water	06/22/17 11:56	06/24/17 08:25
550-84943-5	FC-CCR-MW62-62117	Water	06/21/17 09:08	06/24/17 08:25
550-84943-6	FC-CCR-MW63-62117	Water	06/21/17 10:50	06/24/17 08:25
550-84943-7	FC-CCR-MW64-62117	Water	06/21/17 11:27	06/24/17 08:25
550-84943-8	FC-CCR-MW65-62117	Water	06/21/17 08:20	06/24/17 08:25
550-84943-9	FC-CCR-FD01-62117	Water	06/21/17 08:20	06/24/17 08:25
550-84943-10	FC-CCR-MW66-62117	Water	06/21/17 09:44	06/24/17 08:25
550-84943-11	FC-CCR-MW67-62117	Water	06/21/17 13:26	06/24/17 08:25
550-84943-12	FC-CCR-MW68-62117	Water	06/21/17 14:08	06/24/17 08:25
550-84943-13	FC-CCR-MW69-62117	Water	06/21/17 12:44	06/24/17 08:25
550-84943-14	FC-CCR-MW70-62117	Water	06/21/17 12:05	06/24/17 08:25
550-84943-15	FC-CCR-MW71-62217	Water	06/22/17 08:43	06/24/17 08:25
550-84943-16	FC-CCR-MW72-62217	Water	06/22/17 07:59	06/24/17 08:25
550-84943-17	FC-CCR-FD02-62217	Water	06/22/17 07:59	06/24/17 08:25
550-84943-18	FC-CCR-MW73-62217	Water	06/22/17 09:24	06/24/17 08:25
550-84943-19	FC-CCR-MW74-62217	Water	06/22/17 10:04	06/24/17 08:25
550-84943-20	FC-CCR-MW75-62217	Water	06/22/17 12:38	06/24/17 08:25

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW7-62217 — Lab Sample ID: 550-84943-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	430	D2	400	mg/L	200		300.0	Total/NA
Sulfate	7300	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	410		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	620		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		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	14.4	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW49A-62217 — Lab Sample ID: 550-84943-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	510	D2	20	mg/L	10		300.0	Total/NA
Sulfate	22000	D2	1000	mg/L	500		300.0	Total/NA
Boron	2.1		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	380		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1200	D2	20	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	70		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	5700	D2	5.0	mg/L	10		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	24000	D2	200	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.5	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW60-62217 — Lab Sample ID: 550-84943-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	450	D2	200	mg/L	100		300.0	Total/NA
Fluoride	7.1	D1	0.80	mg/L	2		300.0	Total/NA
Sulfate	5400	D2	200	mg/L	100		300.0	Total/NA
Boron	63	M3	0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440	M3	2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	510	M3	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	M3	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	8100	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.4	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW61-62217 — Lab Sample ID: 550-84943-4

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: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW61-62217 (Continued) — Lab Sample ID: 550-84943-4

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	38		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	480		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	120		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	20		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	90		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	76		6.0	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	14		6.0	mg/L	1		SM 2320B	Total/NA
Alkalinity, Phenolphthalein	6.8		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5400	D2	100	mg/L	1		SM 2540C	Total/NA
pH	8.6	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.7	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW62-62117 — Lab Sample ID: 550-84943-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	120	D2	100	mg/L	50		300.0	Total/NA
Fluoride	1.4		0.40	mg/L	1		300.0	Total/NA
Sulfate	3600	D2	100	mg/L	50		300.0	Total/NA
Boron	1.9		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	520		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	360		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.3		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	710		0.50	mg/L	1		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	5700	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.0	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW63-62117 — Lab Sample ID: 550-84943-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	100	D2	100	mg/L	50		300.0	Total/NA
Fluoride	1.9		0.40	mg/L	1		300.0	Total/NA
Sulfate	2900	D2	100	mg/L	50		300.0	Total/NA
Boron	1.6		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	520		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	6.3		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	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	4400	D2	40	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.6	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW64-62117 — Lab Sample ID: 550-84943-7

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW64-62117 (Continued) — Lab Sample ID: 550-84943-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	51		2.0	mg/L	1		300.0	Total/NA
Fluoride	1.4		0.40	mg/L	1		300.0	Total/NA
Sulfate	390	D2	100	mg/L	50		300.0	Total/NA
Boron	0.55		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	86		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	36		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.8		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	120		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	220		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	770		20	mg/L	1		SM 2540C	Total/NA
pH	7.8	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.5	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW65-62117 — Lab Sample ID: 550-84943-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	68		2.0	mg/L	1		300.0	Total/NA
Fluoride	1.9		0.40	mg/L	1		300.0	Total/NA
Sulfate	710	D2	40	mg/L	20		300.0	Total/NA
Boron	0.92		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	140		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	73		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.9		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	190		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	320		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	320		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1400		20	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.3	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD01-62117 — Lab Sample ID: 550-84943-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	68		2.0	mg/L	1		300.0	Total/NA
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Sulfate	720	D2	100	mg/L	50		300.0	Total/NA
Boron	0.96		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	140		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	76		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.0		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	200		0.50	mg/L	1		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	1300		20	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.4	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW66-62117 — Lab Sample ID: 550-84943-10

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW66-62117 (Continued) — Lab Sample ID: 550-84943-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	400	mg/L	200		300.0	Total/NA
Fluoride	24	D1	2.0	mg/L	5		300.0	Total/NA
Sulfate	11000	D2	400	mg/L	200		300.0	Total/NA
Boron	130	D2	0.50	mg/L	10		200.7 Rev 4.4	Total/NA
Calcium	450		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2700	D2	20	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	43		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	600		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	270		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	270		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	18000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.9	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW67-62117 — Lab Sample ID: 550-84943-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1900	D2	400	mg/L	200		300.0	Total/NA
Fluoride	21	D1	2.0	mg/L	5		300.0	Total/NA
Sulfate	11000	D2	400	mg/L	200		300.0	Total/NA
Boron	130	D2	0.50	mg/L	10		200.7 Rev 4.4	Total/NA
Calcium	480		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2700	D2	20	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	39		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
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	18000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.7	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW68-62117 — Lab Sample ID: 550-84943-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1400	D2	400	mg/L	200		300.0	Total/NA
Fluoride	8.7	D1	2.0	mg/L	5		300.0	Total/NA
Sulfate	9700	D2	400	mg/L	200		300.0	Total/NA
Boron	120	D2	0.50	mg/L	10		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2400	D2	20	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	17		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	640		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	560		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	560		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	16.2	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW69-62117 — Lab Sample ID: 550-84943-13

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW69-62117 (Continued) — Lab Sample ID: 550-84943-13

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1400	D2	400	mg/L	200		300.0	Total/NA
Fluoride	14	D1	2.0	mg/L	5		300.0	Total/NA
Sulfate	10000	D2	400	mg/L	200		300.0	Total/NA
Boron	120	D2	0.50	mg/L	10		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2400	D2	20	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	39		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	590		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	290		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	290		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	16000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.6	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW70-62117 — Lab Sample ID: 550-84943-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1000	D2	400	mg/L	200		300.0	Total/NA
Fluoride	2.9	D1	0.80	mg/L	2		300.0	Total/NA
Sulfate	6200	D2	400	mg/L	200		300.0	Total/NA
Boron	92	D2	0.50	mg/L	10		200.7 Rev 4.4	Total/NA
Calcium	500		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1300	D2	20	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	18		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	850		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	510		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	510		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.8	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW71-62217 — Lab Sample ID: 550-84943-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	620	D2	20	mg/L	10		300.0	Total/NA
Sulfate	4600	D2	400	mg/L	200		300.0	Total/NA
Boron	0.60		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	2400	D2	20	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	31		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	540		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	540		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	17000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.1	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW72-62217 — Lab Sample ID: 550-84943-16

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW72-62217 (Continued) — Lab Sample ID: 550-84943-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	450	D2	400	mg/L	200		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
Magnesium	2400	D2	20	mg/L	10		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
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	14.0	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD02-62217 — Lab Sample ID: 550-84943-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	450	D2	10	mg/L	5		300.0	Total/NA
Sulfate	11000	D2	400	mg/L	200		300.0	Total/NA
Boron	0.22		0.050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2500	D2	20	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	30		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	770		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	610		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	610		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	11.7	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW73-62217 — Lab Sample ID: 550-84943-18

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	450	D2	200	mg/L	100		300.0	Total/NA
Sulfate	6700	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	490		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	750		2.0	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	34		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	780		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	780		6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000	D2	100	mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.7	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW74-62217 — Lab Sample ID: 550-84943-19

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: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW74-62217 (Continued) — Lab Sample ID: 550-84943-19

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	7800	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	640		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	2200		0.50	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	440		6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	440		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	10.9	H5	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW75-62217 — Lab Sample ID: 550-84943-20

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	300	D2	10	mg/L	5		300.0	Total/NA
Sulfate	4300	D2	400	mg/L	200		300.0	Total/NA
Boron	25		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	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	6500	D2	100	mg/L	1		SM 2540C	Total/NA
pH	8.3	H5	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	11.9	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: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW7-62217

Lab Sample ID: 550-84943-1
Date Collected: 06/22/17 13:40
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	430	D2	400	mg/L			06/28/17 18:03	200
Fluoride	ND	D1 D5	0.80	mg/L			06/28/17 17:45	2
Sulfate	7300	D2	400	mg/L			06/28/17 18:03	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		06/26/17 06:58	06/30/17 01:08	1
Calcium	410		2.0	mg/L		06/26/17 06:58	06/30/17 01:08	1
Magnesium	620		2.0	mg/L		06/26/17 06:58	06/30/17 01:08	1
Potassium	36		0.50	mg/L		06/26/17 06:58	06/30/17 01:08	1
Sodium	1700		0.50	mg/L		06/26/17 06:58	06/30/17 01:08	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	500		6.0	mg/L			06/26/17 11:00	1
Bicarbonate Alkalinity as CaCO3	500		6.0	mg/L			06/26/17 11:00	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 11:00	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 11:00	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 11:00	1
Total Dissolved Solids	10000	D2	100	mg/L			06/26/17 11:21	1
pH	7.5	H5	1.7	SU			06/26/17 16:02	1
Temperature	14.4	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW49A-62217

Lab Sample ID: 550-84943-2
Date Collected: 06/22/17 14:27
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	510	D2	20	mg/L			06/30/17 16:29	10
Fluoride	ND	D1 D5	2.0	mg/L			06/28/17 18:21	5
Sulfate	22000	D2	1000	mg/L			06/28/17 18:40	500

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		06/26/17 06:58	06/30/17 01:14	1
Calcium	380		2.0	mg/L		06/26/17 06:58	06/30/17 01:14	1
Magnesium	1200	D2	20	mg/L		06/26/17 06:58	06/30/17 21:27	10
Potassium	70		0.50	mg/L		06/26/17 06:58	06/30/17 01:14	1
Sodium	5700	D2	5.0	mg/L		06/26/17 06:58	06/30/17 21:27	10

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	850		6.0	mg/L			07/01/17 14:30	1
Bicarbonate Alkalinity as CaCO3	850		6.0	mg/L			07/01/17 14:30	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/01/17 14:30	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/01/17 14:30	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/01/17 14:30	1
Total Dissolved Solids	24000	D2	200	mg/L			06/26/17 11:21	1
pH	7.5	H5	1.7	SU			06/26/17 16:02	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW49A-62217

Lab Sample ID: 550-84943-2
Date Collected: 06/22/17 14:27
Matrix: Water
Date Received: 06/24/17 08:25

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature	14.5	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW60-62217

Lab Sample ID: 550-84943-3
Date Collected: 06/22/17 11:11
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	450	D2	200	mg/L			06/28/17 19:17	100
Fluoride	7.1	D1	0.80	mg/L			06/28/17 18:58	2
Sulfate	5400	D2	200	mg/L			06/28/17 19:17	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	63	M3	0.050	mg/L		06/26/17 06:58	06/30/17 01:02	1
Calcium	440	M3	2.0	mg/L		06/26/17 06:58	06/30/17 01:02	1
Magnesium	510	M3	2.0	mg/L		06/26/17 06:58	06/30/17 01:02	1
Potassium	27		0.50	mg/L		06/26/17 06:58	06/30/17 01:02	1
Sodium	1100	M3	0.50	mg/L		06/26/17 06:58	06/30/17 01:02	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	130		6.0	mg/L			06/26/17 11:31	1
Bicarbonate Alkalinity as CaCO3	130		6.0	mg/L			06/26/17 11:31	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 11:31	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 11:31	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 11:31	1
Total Dissolved Solids	8100	D2	100	mg/L			06/26/17 11:21	1
pH	7.7	H5	1.7	SU			06/26/17 16:02	1
Temperature	15.4	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW61-62217

Lab Sample ID: 550-84943-4
Date Collected: 06/22/17 11:56
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	310	D2	100	mg/L			06/28/17 19:53	50
Fluoride	1.3		0.40	mg/L			06/28/17 19:35	1
Sulfate	3700	D2	100	mg/L			06/28/17 19:53	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	38		0.050	mg/L		06/26/17 06:58	06/30/17 01:20	1
Calcium	480		2.0	mg/L		06/26/17 06:58	06/30/17 01:20	1
Magnesium	120		2.0	mg/L		06/26/17 06:58	06/30/17 01:20	1
Potassium	20		0.50	mg/L		06/26/17 06:58	06/30/17 01:20	1
Sodium	1100		0.50	mg/L		06/26/17 06:58	06/30/17 01:20	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW61-62217

Lab Sample ID: 550-84943-4
Date Collected: 06/22/17 11:56
Matrix: Water
Date Received: 06/24/17 08:25

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	90		6.0	mg/L			06/26/17 11:38	1
Bicarbonate Alkalinity as CaCO3	76		6.0	mg/L			06/26/17 11:38	1
Carbonate Alkalinity as CaCO3	14		6.0	mg/L			06/26/17 11:38	1
Alkalinity, Phenolphthalein	6.8		6.0	mg/L			06/26/17 11:38	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 11:38	1
Total Dissolved Solids	5400	D2	100	mg/L			06/26/17 11:21	1
pH	8.6	H5	1.7	SU			06/26/17 16:02	1
Temperature	16.7	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW62-62117

Lab Sample ID: 550-84943-5
Date Collected: 06/21/17 09:08
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120	D2	100	mg/L			06/28/17 21:07	50
Fluoride	1.4		0.40	mg/L			06/28/17 20:49	1
Sulfate	3600	D2	100	mg/L			06/28/17 21:07	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.9		0.050	mg/L		06/26/17 06:58	06/30/17 01:26	1
Calcium	520		2.0	mg/L		06/26/17 06:58	06/30/17 01:26	1
Magnesium	360		2.0	mg/L		06/26/17 06:58	06/30/17 01:26	1
Potassium	9.3		0.50	mg/L		06/26/17 06:58	06/30/17 01:26	1
Sodium	710		0.50	mg/L		06/26/17 06:58	06/30/17 01:26	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	850		6.0	mg/L			07/01/17 14:30	1
Bicarbonate Alkalinity as CaCO3	850		6.0	mg/L			07/01/17 14:30	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			07/01/17 14:30	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			07/01/17 14:30	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			07/01/17 14:30	1
Total Dissolved Solids	5700	D2	100	mg/L			06/26/17 11:21	1
pH	7.0	H5	1.7	SU			06/26/17 16:02	1
Temperature	16.0	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW63-62117

Lab Sample ID: 550-84943-6
Date Collected: 06/21/17 10:50
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100	D2	100	mg/L			06/28/17 21:44	50
Fluoride	1.9		0.40	mg/L			06/28/17 21:25	1
Sulfate	2900	D2	100	mg/L			06/28/17 21:44	50

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		06/26/17 06:58	06/30/17 01:32	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW63-62117

Lab Sample ID: 550-84943-6
Date Collected: 06/21/17 10:50
Matrix: Water
Date Received: 06/24/17 08:25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	520		2.0	mg/L		06/26/17 06:58	06/30/17 01:32	1
Magnesium	280		2.0	mg/L		06/26/17 06:58	06/30/17 01:32	1
Potassium	6.3		0.50	mg/L		06/26/17 06:58	06/30/17 01:32	1
Sodium	380		0.50	mg/L		06/26/17 06:58	06/30/17 01:32	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	500		6.0	mg/L			06/26/17 12:01	1
Bicarbonate Alkalinity as CaCO3	500		6.0	mg/L			06/26/17 12:01	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:01	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 12:01	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:01	1
Total Dissolved Solids	4400	D2	40	mg/L			06/26/17 11:21	1
pH	7.2	H5	1.7	SU			06/26/17 16:02	1
Temperature	15.6	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW64-62117

Lab Sample ID: 550-84943-7
Date Collected: 06/21/17 11:27
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51		2.0	mg/L			06/28/17 22:02	1
Fluoride	1.4		0.40	mg/L			06/28/17 22:02	1
Sulfate	390	D2	100	mg/L			06/28/17 22:21	50

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		06/26/17 06:58	06/30/17 01:38	1
Calcium	86		2.0	mg/L		06/26/17 06:58	06/30/17 01:38	1
Magnesium	36		2.0	mg/L		06/26/17 06:58	06/30/17 01:38	1
Potassium	5.8		0.50	mg/L		06/26/17 06:58	06/30/17 01:38	1
Sodium	120		0.50	mg/L		06/26/17 06:58	06/30/17 01:38	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	220		6.0	mg/L			06/26/17 12:10	1
Bicarbonate Alkalinity as CaCO3	220		6.0	mg/L			06/26/17 12:10	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:10	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 12:10	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:10	1
Total Dissolved Solids	770		20	mg/L			06/26/17 11:21	1
pH	7.8	H5	1.7	SU			06/26/17 16:02	1
Temperature	14.5	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW65-62117

Lab Sample ID: 550-84943-8
Date Collected: 06/21/17 08:20
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68		2.0	mg/L			06/28/17 22:39	1
Fluoride	1.9		0.40	mg/L			06/28/17 22:39	1
Sulfate	710	D2	40	mg/L			06/28/17 22:57	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.92		0.050	mg/L		06/26/17 06:58	06/30/17 01:41	1
Calcium	140		2.0	mg/L		06/26/17 06:58	06/30/17 01:41	1
Magnesium	73		2.0	mg/L		06/26/17 06:58	06/30/17 01:41	1
Potassium	3.9		0.50	mg/L		06/26/17 06:58	06/30/17 01:41	1
Sodium	190		0.50	mg/L		06/26/17 06:58	06/30/17 01:41	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	320		6.0	mg/L			06/26/17 12:19	1
Bicarbonate Alkalinity as CaCO3	320		6.0	mg/L			06/26/17 12:19	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:19	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 12:19	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:19	1
Total Dissolved Solids	1400		20	mg/L			06/26/17 11:21	1
pH	7.6	H5	1.7	SU			06/26/17 16:02	1
Temperature	16.3	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-FD01-62117

Lab Sample ID: 550-84943-9
Date Collected: 06/21/17 08:20
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68		2.0	mg/L			06/28/17 23:16	1
Fluoride	2.0		0.40	mg/L			06/28/17 23:16	1
Sulfate	720	D2	100	mg/L			06/28/17 23:34	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.96		0.050	mg/L		06/26/17 06:58	06/30/17 01:43	1
Calcium	140		2.0	mg/L		06/26/17 06:58	06/30/17 01:43	1
Magnesium	76		2.0	mg/L		06/26/17 06:58	06/30/17 01:43	1
Potassium	4.0		0.50	mg/L		06/26/17 06:58	06/30/17 01:43	1
Sodium	200		0.50	mg/L		06/26/17 06:58	06/30/17 01:43	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		6.0	mg/L			06/26/17 12:28	1
Bicarbonate Alkalinity as CaCO3	330		6.0	mg/L			06/26/17 12:28	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:28	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 12:28	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:28	1
Total Dissolved Solids	1300		20	mg/L			06/26/17 11:21	1
pH	7.6	H5	1.7	SU			06/26/17 16:02	1
Temperature	16.4	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW66-62117

Lab Sample ID: 550-84943-10
Date Collected: 06/21/17 09:44
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700	D2	400	mg/L			06/30/17 17:24	200
Fluoride	24	D1	2.0	mg/L			06/30/17 17:06	5
Sulfate	11000	D2	400	mg/L			06/30/17 17:24	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	130	D2	0.50	mg/L		06/26/17 06:58	06/30/17 21:30	10
Calcium	450		2.0	mg/L		06/26/17 06:58	06/30/17 01:46	1
Magnesium	2700	D2	20	mg/L		06/26/17 06:58	06/30/17 21:30	10
Potassium	43		0.50	mg/L		06/26/17 06:58	06/30/17 01:46	1
Sodium	600		0.50	mg/L		06/26/17 06:58	06/30/17 01:46	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	270		6.0	mg/L			06/26/17 12:37	1
Bicarbonate Alkalinity as CaCO3	270		6.0	mg/L			06/26/17 12:37	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:37	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 12:37	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 12:37	1
Total Dissolved Solids	18000	D2	100	mg/L			06/26/17 11:21	1
pH	7.3	H5	1.7	SU			06/26/17 16:02	1
Temperature	15.9	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW67-62117

Lab Sample ID: 550-84943-11
Date Collected: 06/21/17 13:26
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1900	D2	400	mg/L			06/30/17 18:59	200
Fluoride	21	D1	2.0	mg/L			06/30/17 17:42	5
Sulfate	11000	D2	400	mg/L			07/03/17 19:08	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	130	D2	0.50	mg/L		06/26/17 06:58	06/30/17 21:36	10
Calcium	480		2.0	mg/L		06/26/17 06:58	06/30/17 01:58	1
Magnesium	2700	D2	20	mg/L		06/26/17 06:58	06/30/17 21:36	10
Potassium	39		0.50	mg/L		06/26/17 06:58	06/30/17 01:58	1
Sodium	620		0.50	mg/L		06/26/17 06:58	06/30/17 01:58	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		6.0	mg/L			06/26/17 13:02	1
Bicarbonate Alkalinity as CaCO3	330		6.0	mg/L			06/26/17 13:02	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:02	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 13:02	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:02	1
Total Dissolved Solids	18000	D2	100	mg/L			06/26/17 11:21	1
pH	7.3	H5	1.7	SU			06/26/17 16:02	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW67-62117

Lab Sample ID: 550-84943-11
Date Collected: 06/21/17 13:26
Matrix: Water
Date Received: 06/24/17 08:25

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature	15.7	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW68-62117

Lab Sample ID: 550-84943-12
Date Collected: 06/21/17 14:08
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1400	D2	400	mg/L			06/30/17 19:36	200
Fluoride	8.7	D1	2.0	mg/L			06/30/17 19:17	5
Sulfate	9700	D2	400	mg/L			07/03/17 19:27	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	120	D2	0.50	mg/L		06/26/17 06:58	06/30/17 21:41	10
Calcium	470		2.0	mg/L		06/26/17 06:58	06/30/17 02:03	1
Magnesium	2400	D2	20	mg/L		06/26/17 06:58	06/30/17 21:41	10
Potassium	17		0.50	mg/L		06/26/17 06:58	06/30/17 02:03	1
Sodium	640		0.50	mg/L		06/26/17 06:58	06/30/17 02:03	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	560		6.0	mg/L			06/26/17 13:21	1
Bicarbonate Alkalinity as CaCO3	560		6.0	mg/L			06/26/17 13:21	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:21	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 13:21	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:21	1
Total Dissolved Solids	17000	D2	100	mg/L			06/26/17 11:21	1
pH	7.1	H5	1.7	SU			06/26/17 16:02	1
Temperature	16.2	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW69-62117

Lab Sample ID: 550-84943-13
Date Collected: 06/21/17 12:44
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1400	D2	400	mg/L			06/30/17 20:12	200
Fluoride	14	D1	2.0	mg/L			06/30/17 19:54	5
Sulfate	10000	D2	400	mg/L			07/03/17 19:45	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	120	D2	0.50	mg/L		06/26/17 06:58	06/30/17 21:47	10
Calcium	460		2.0	mg/L		06/26/17 06:58	06/30/17 02:09	1
Magnesium	2400	D2	20	mg/L		06/26/17 06:58	06/30/17 21:47	10
Potassium	39		0.50	mg/L		06/26/17 06:58	06/30/17 02:09	1
Sodium	590		0.50	mg/L		06/26/17 06:58	06/30/17 02:09	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW69-62117

Lab Sample ID: 550-84943-13
Date Collected: 06/21/17 12:44
Matrix: Water
Date Received: 06/24/17 08:25

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	290		6.0	mg/L			06/26/17 13:30	1
Bicarbonate Alkalinity as CaCO3	290		6.0	mg/L			06/26/17 13:30	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:30	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 13:30	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:30	1
Total Dissolved Solids	16000	D2	100	mg/L			06/26/17 11:21	1
pH	7.5	H5	1.7	SU			06/26/17 16:02	1
Temperature	16.6	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW70-62117

Lab Sample ID: 550-84943-14
Date Collected: 06/21/17 12:05
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1000	D2	400	mg/L			07/03/17 20:04	200
Fluoride	2.9	D1	0.80	mg/L			06/30/17 20:31	2
Sulfate	6200	D2	400	mg/L			07/03/17 20:04	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	92	D2	0.50	mg/L		06/26/17 06:58	06/30/17 21:53	10
Calcium	500		2.0	mg/L		06/26/17 06:58	06/30/17 02:15	1
Magnesium	1300	D2	20	mg/L		06/26/17 06:58	06/30/17 21:53	10
Potassium	18		0.50	mg/L		06/26/17 06:58	06/30/17 02:15	1
Sodium	850		0.50	mg/L		06/26/17 06:58	06/30/17 02:15	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	510		6.0	mg/L			06/26/17 13:41	1
Bicarbonate Alkalinity as CaCO3	510		6.0	mg/L			06/26/17 13:41	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:41	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 13:41	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:41	1
Total Dissolved Solids	11000	D2	100	mg/L			06/26/17 11:21	1
pH	7.1	H5	1.7	SU			06/26/17 16:02	1
Temperature	15.8	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW71-62217

Lab Sample ID: 550-84943-15
Date Collected: 06/22/17 08:43
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	620	D2	20	mg/L			07/03/17 20:22	10
Fluoride	ND	D1 D5	2.0	mg/L			06/30/17 21:08	5
Sulfate	4600	D2	400	mg/L			07/03/17 20:40	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.60		0.050	mg/L		06/26/17 06:58	06/30/17 02:21	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW71-62217

Lab Sample ID: 550-84943-15
Date Collected: 06/22/17 08:43
Matrix: Water
Date Received: 06/24/17 08:25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	460		2.0	mg/L		06/26/17 06:58	06/30/17 02:21	1
Magnesium	2400	D2	20	mg/L		06/26/17 06:58	06/30/17 21:56	10
Potassium	31		0.50	mg/L		06/26/17 06:58	06/30/17 02:21	1
Sodium	1200		0.50	mg/L		06/26/17 06:58	06/30/17 02:21	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	540		6.0	mg/L			06/26/17 13:51	1
Bicarbonate Alkalinity as CaCO3	540		6.0	mg/L			06/26/17 13:51	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:51	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 13:51	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 13:51	1
Total Dissolved Solids	17000	D2	100	mg/L			06/26/17 11:21	1
pH	7.2	H5	1.7	SU			06/26/17 16:02	1
Temperature	15.1	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW72-62217

Lab Sample ID: 550-84943-16
Date Collected: 06/22/17 07:59
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	450	D2	400	mg/L			06/30/17 22:40	200
Fluoride	ND	D1 D5	2.0	mg/L			06/30/17 22:21	5
Sulfate	11000	D2	400	mg/L			07/03/17 20:59	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		06/26/17 06:58	06/30/17 02:27	1
Calcium	450		2.0	mg/L		06/26/17 06:58	06/30/17 02:27	1
Magnesium	2400	D2	20	mg/L		06/26/17 06:58	06/30/17 22:01	10
Potassium	29		0.50	mg/L		06/26/17 06:58	06/30/17 02:27	1
Sodium	760		0.50	mg/L		06/26/17 06:58	06/30/17 02:27	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	600		6.0	mg/L			06/26/17 14:02	1
Bicarbonate Alkalinity as CaCO3	600		6.0	mg/L			06/26/17 14:02	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:02	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 14:02	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:02	1
Total Dissolved Solids	17000	D2	100	mg/L			06/26/17 11:21	1
pH	7.1	H5	1.7	SU			06/26/17 16:02	1
Temperature	14.0	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-FD02-62217

Lab Sample ID: 550-84943-17
Date Collected: 06/22/17 07:59
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	450	D2	10	mg/L			06/30/17 22:58	5
Fluoride	ND	D1 D5	2.0	mg/L			06/30/17 22:58	5
Sulfate	11000	D2	400	mg/L			07/03/17 21:17	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.22		0.050	mg/L		06/26/17 06:58	06/30/17 02:33	1
Calcium	440		2.0	mg/L		06/26/17 06:58	06/30/17 02:33	1
Magnesium	2500	D2	20	mg/L		06/26/17 06:58	06/30/17 22:07	10
Potassium	30		0.50	mg/L		06/26/17 06:58	06/30/17 02:33	1
Sodium	770		0.50	mg/L		06/26/17 06:58	06/30/17 02:33	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	610		6.0	mg/L			06/26/17 14:14	1
Bicarbonate Alkalinity as CaCO3	610		6.0	mg/L			06/26/17 14:14	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:14	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 14:14	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:14	1
Total Dissolved Solids	17000	D2	100	mg/L			06/27/17 10:53	1
pH	7.0	H5	1.7	SU			06/26/17 16:02	1
Temperature	11.7	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW73-62217

Lab Sample ID: 550-84943-18
Date Collected: 06/22/17 09:24
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	450	D2	200	mg/L			06/30/17 23:53	100
Fluoride	ND	D1 D5	0.80	mg/L			06/30/17 23:35	2
Sulfate	6700	D2	200	mg/L			07/03/17 21:36	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		06/26/17 06:58	06/30/17 02:39	1
Calcium	490		2.0	mg/L		06/26/17 06:58	06/30/17 02:39	1
Magnesium	750		2.0	mg/L		06/26/17 06:58	06/30/17 02:39	1
Potassium	34		0.50	mg/L		06/26/17 06:58	06/30/17 02:39	1
Sodium	1600		0.50	mg/L		06/26/17 06:58	06/30/17 02:39	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	780		6.0	mg/L			06/26/17 14:25	1
Bicarbonate Alkalinity as CaCO3	780		6.0	mg/L			06/26/17 14:25	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:25	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 14:25	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:25	1
Total Dissolved Solids	11000	D2	100	mg/L			06/27/17 10:53	1
pH	7.0	H5	1.7	SU			06/26/17 16:02	1
Temperature	10.7	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW74-62217

Lab Sample ID: 550-84943-19
Date Collected: 06/22/17 10:04
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	410	D2	200	mg/L			07/01/17 00:30	100
Fluoride	1.9	D1	0.80	mg/L			07/01/17 00:12	2
Sulfate	7800	D2	200	mg/L			07/03/17 21:54	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		06/26/17 06:58	06/30/17 02:45	1
Calcium	420		2.0	mg/L		06/26/17 06:58	06/30/17 02:45	1
Magnesium	640		2.0	mg/L		06/26/17 06:58	06/30/17 02:45	1
Potassium	22		0.50	mg/L		06/26/17 06:58	06/30/17 02:45	1
Sodium	2200		0.50	mg/L		06/26/17 06:58	06/30/17 02:45	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	440		6.0	mg/L			06/26/17 14:36	1
Bicarbonate Alkalinity as CaCO3	440		6.0	mg/L			06/26/17 14:36	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:36	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 14:36	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:36	1
Total Dissolved Solids	12000	D2	100	mg/L			06/27/17 10:53	1
pH	7.8	H5	1.7	SU			06/26/17 16:02	1
Temperature	10.9	H5	0.1	Degrees C			06/26/17 16:02	1

Client Sample ID: FC-CCR-MW75-62217

Lab Sample ID: 550-84943-20
Date Collected: 06/22/17 12:38
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	300	D2	10	mg/L			07/01/17 00:48	5
Fluoride	ND	D1 D5	2.0	mg/L			07/01/17 00:48	5
Sulfate	4300	D2	400	mg/L			07/03/17 22:49	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		06/26/17 06:58	06/30/17 02:51	1
Calcium	450		2.0	mg/L		06/26/17 06:58	06/30/17 02:51	1
Magnesium	240		2.0	mg/L		06/26/17 06:58	06/30/17 02:51	1
Potassium	23		0.50	mg/L		06/26/17 06:58	06/30/17 02:51	1
Sodium	1300		0.50	mg/L		06/26/17 06:58	06/30/17 02:51	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	95		6.0	mg/L			06/26/17 14:44	1
Bicarbonate Alkalinity as CaCO3	95		6.0	mg/L			06/26/17 14:44	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:44	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 14:44	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 14:44	1
Total Dissolved Solids	6500	D2	100	mg/L			06/27/17 10:53	1
pH	8.3	H5	1.7	SU			06/26/17 16:02	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW75-62217

Lab Sample ID: 550-84943-20

Date Collected: 06/22/17 12:38

Matrix: Water

Date Received: 06/24/17 08:25

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Temperature	11.9	H5	0.1		Degrees C			06/26/17 16:02	1

QC Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-121222/2
Matrix: Water
Analysis Batch: 121222

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0	mg/L			06/28/17 12:13	1
Fluoride	ND		0.40	mg/L			06/28/17 12:13	1
Sulfate	ND		2.0	mg/L			06/28/17 12:13	1

Lab Sample ID: LCS 550-121222/5
Matrix: Water
Analysis Batch: 121222

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.4		mg/L		102	90 - 110
Fluoride	4.00	4.27		mg/L		107	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-121222/6
Matrix: Water
Analysis Batch: 121222

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
Chloride	20.0	20.4		mg/L		102	90 - 110	0	20
Fluoride	4.00	4.27		mg/L		107	90 - 110	0	20
Sulfate	20.0	20.7		mg/L		103	90 - 110	0	20

Lab Sample ID: 550-85019-E-1 MS
Matrix: Water
Analysis Batch: 121222

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	93	M3	20.0	107	E2 M3	mg/L		69	80 - 120
Fluoride	ND		4.00	4.34		mg/L		100	80 - 120
Sulfate	200	E2 M3	20.0	210	E2 M3	mg/L		32	80 - 120

Lab Sample ID: 550-85019-E-1 MSD
Matrix: Water
Analysis Batch: 121222

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	93	M3	20.0	108	E2 M3	mg/L		76	80 - 120	1	20
Fluoride	ND		4.00	4.61		mg/L		106	80 - 120	6	20
Sulfate	200	E2 M3	20.0	210	E2 M3	mg/L		35	80 - 120	0	20

Lab Sample ID: MB 550-121501/2
Matrix: Water
Analysis Batch: 121501

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0	mg/L			06/30/17 13:25	1
Fluoride	ND		0.40	mg/L			06/30/17 13:25	1
Sulfate	ND		2.0	mg/L			06/30/17 13:25	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-121501/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121501

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.4		mg/L		102	90 - 110
Fluoride	4.00	4.27		mg/L		107	90 - 110
Sulfate	20.0	20.7		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-121501/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121501

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	20.0	20.4		mg/L		102	90 - 110	0	20
Fluoride	4.00	4.30		mg/L		107	90 - 110	1	20
Sulfate	20.0	20.7		mg/L		103	90 - 110	0	20

Lab Sample ID: 550-85235-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121501

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	140	E2 M3	20.0	157	E2 M3	mg/L		72	80 - 120
Fluoride	5.6		4.00	9.21		mg/L		91	80 - 120
Sulfate	350	E2 M3	20.0	348	E2 M3	mg/L		1	80 - 120

Lab Sample ID: 550-85235-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121501

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	140	E2 M3	20.0	157	E2 M3	mg/L		74	80 - 120	0	20
Fluoride	5.6		4.00	9.27		mg/L		93	80 - 120	1	20
Sulfate	350	E2 M3	20.0	348	E2 M3	mg/L		0.9	80 - 120	0	20

Lab Sample ID: MB 550-121601/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121601

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0	mg/L			07/03/17 17:36	1
Fluoride	ND		0.40	mg/L			07/03/17 17:36	1
Sulfate	ND		2.0	mg/L			07/03/17 17:36	1

Lab Sample ID: LCS 550-121601/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.4		mg/L		102	90 - 110
Fluoride	4.00	4.26		mg/L		106	90 - 110
Sulfate	20.0	20.9		mg/L		105	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-121601/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121601

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	20.0	20.4		mg/L		102	90 - 110	0	20
Fluoride	4.00	4.26		mg/L		107	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	1	20

Lab Sample ID: 550-85033-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121601

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	560	E2 M3	20.0	556	E2 M3	mg/L		-37	80 - 120
Fluoride	16	M3	4.00	19.5	M3	mg/L		85	80 - 120
Sulfate	350	E2 M3	20.0	352	E2 M3	mg/L		-3	80 - 120

Lab Sample ID: 550-85033-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121601

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	560	E2 M3	20.0	556	E2 M3	mg/L		-37	80 - 120	0	20
Fluoride	16	M3	4.00	19.5	M3	mg/L		83	80 - 120	0	20
Sulfate	350	E2 M3	20.0	352	E2 M3	mg/L		-2	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-120825/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121350 — **Prep Batch: 120825**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	mg/L		06/26/17 06:58	06/30/17 00:42	1
Calcium	ND		2.0	mg/L		06/26/17 06:58	06/30/17 00:42	1
Magnesium	ND		2.0	mg/L		06/26/17 06:58	06/30/17 00:42	1
Potassium	ND		0.50	mg/L		06/26/17 06:58	06/30/17 00:42	1
Sodium	ND		0.50	mg/L		06/26/17 06:58	06/30/17 00:42	1

Lab Sample ID: LCS 550-120825/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121350 — **Prep Batch: 120825**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.05		mg/L		105	85 - 115
Calcium	21.0	22.0		mg/L		105	85 - 115
Magnesium	21.0	22.6		mg/L		107	85 - 115
Potassium	20.0	21.3		mg/L		106	85 - 115
Sodium	20.0	20.5		mg/L		102	85 - 115

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

Lab Sample ID: LCSD 550-120825/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121350 — **Prep Batch: 120825**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.03		mg/L		103	85 - 115	1	20
Calcium	21.0	21.8		mg/L		104	85 - 115	1	20
Magnesium	21.0	22.3		mg/L		106	85 - 115	1	20
Potassium	20.0	21.1		mg/L		105	85 - 115	1	20
Sodium	20.0	20.6		mg/L		103	85 - 115	1	20

Lab Sample ID: 550-84943-3 MS — **Client Sample ID: FC-CCR-MW60-62217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121350 — **Prep Batch: 120825**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	63	M3	1.00	60.4	M3	mg/L		-233	70 - 130
Calcium	440	M3	21.0	429	M3	mg/L		-34	70 - 130
Magnesium	510	M3	21.0	505	M3	mg/L		-20	70 - 130
Potassium	27		20.0	48.2		mg/L		106	70 - 130
Sodium	1100	M3	20.0	1080	M3	mg/L		-56	70 - 130

Lab Sample ID: 550-84943-3 MSD — **Client Sample ID: FC-CCR-MW60-62217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121350 — **Prep Batch: 120825**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	63	M3	1.00	62.1	M3	mg/L		-65	70 - 130	3	20
Calcium	440	M3	21.0	453	M3	mg/L		80	70 - 130	5	20
Magnesium	510	M3	21.0	524	M3	mg/L		67	70 - 130	4	20
Potassium	27		20.0	48.4		mg/L		107	70 - 130	1	20
Sodium	1100	M3	20.0	1100	M3	mg/L		62	70 - 130	2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-120897/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120897

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 10:50	1
Bicarbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 10:50	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 10:50	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			06/26/17 10:50	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			06/26/17 10:50	1

Lab Sample ID: LCS 550-120897/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120897

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

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-120897/20 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120897

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	1	20

Lab Sample ID: 550-84943-1 DU — **Client Sample ID: FC-CCR-MW7-62217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120897

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	500			506		mg/L				0.3	20
Bicarbonate Alkalinity as CaCO3	500			506		mg/L				0.3	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: 550-84943-11 DU — **Client Sample ID: FC-CCR-MW67-62117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120897

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	330			327		mg/L				0	20
Bicarbonate Alkalinity as CaCO3	330			327		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

Lab Sample ID: MB 550-121451/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121451

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			07/01/17 14:30	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			07/01/17 14:30	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			07/01/17 14:30	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			07/01/17 14:30	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			07/01/17 14:30	1

Lab Sample ID: LCS 550-121451/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121451

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

Lab Sample ID: LCSD 550-121451/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121451

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	252		mg/L		101	90 - 110	1	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-85262-F-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121451

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	100			104		mg/L					
Bicarbonate Alkalinity as CaCO3	100			104		mg/L					
Carbonate Alkalinity as CaCO3	ND			ND		mg/L					
Alkalinity, Phenolphthalein	ND			ND		mg/L					
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L					

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

Lab Sample ID: MB 550-120869/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120869

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			06/26/17 11:21	1

Lab Sample ID: LCS 550-120869/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120869

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	936		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-120869/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120869

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	938		mg/L		94	90 - 110	0	10

Lab Sample ID: 550-84940-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120869

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	770			774		mg/L				0.3	10

Lab Sample ID: 550-84943-13 DU — **Client Sample ID: FC-CCR-MW69-62117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120869

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	16000	D2		16600	D2	mg/L				1	10

Lab Sample ID: MB 550-120969/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120969

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			06/27/17 10:53	1

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

Lab Sample ID: LCS 550-120969/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120969

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	970		mg/L		97	90 - 110

Lab Sample ID: LCSD 550-120969/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120969

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	1000	958		mg/L		96	90 - 110	1	10

Lab Sample ID: 550-84931-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120969

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	540		540		mg/L		0.4	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-120905/1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120905

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		99.4	98.5 - 101.5

Lab Sample ID: LCSSRM 550-120905/13 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120905

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		99.7	98.5 - 101.5

Lab Sample ID: LCSSRM 550-120905/25 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120905

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: 550-84943-1 DU — **Client Sample ID: FC-CCR-MW7-62217**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120905

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.5	H5	7.5	H5	SU		0.1	5
Temperature	14.4	H5	14.2	H5	Degrees C		1	

QC Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 550-84943-11 DU
Matrix: Water
Analysis Batch: 120905

Client Sample ID: FC-CCR-MW67-62117
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.3	H5		7.3	H5	SU				0	5
Temperature	15.7	H5		16.0	H5	Degrees C				2	

QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

HPLC/IC

Analysis Batch: 121222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	300.0	
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	300.0	
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	300.0	
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	300.0	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	300.0	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	300.0	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	300.0	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	300.0	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	300.0	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	300.0	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	300.0	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	300.0	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	300.0	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	300.0	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	300.0	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	300.0	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	300.0	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	300.0	
MB 550-121222/2	Method Blank	Total/NA	Water	300.0	
LCS 550-121222/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-121222/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-85019-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-85019-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 121501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	300.0	
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	300.0	
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	300.0	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	300.0	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	300.0	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	300.0	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	300.0	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	300.0	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	300.0	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	300.0	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	300.0	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	300.0	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	300.0	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	300.0	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	300.0	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	300.0	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	300.0	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	300.0	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	300.0	
MB 550-121501/2	Method Blank	Total/NA	Water	300.0	
LCS 550-121501/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-121501/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-85235-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-85235-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 121601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	300.0	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	300.0	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	300.0	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	300.0	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	300.0	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	300.0	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	300.0	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	300.0	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	300.0	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	300.0	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	300.0	
MB 550-121601/2	Method Blank	Total/NA	Water	300.0	
LCS 550-121601/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-121601/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-85033-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-85033-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 120825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	200.7	
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	200.7	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	200.7	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	200.7	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	200.7	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	200.7	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	200.7	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	200.7	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	200.7	
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	200.7	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	200.7	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.7	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	200.7	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	200.7	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	200.7	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.7	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	200.7	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	200.7	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	200.7	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	200.7	
MB 550-120825/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-120825/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-120825/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-84943-3 MS	FC-CCR-MW60-62217	Total/NA	Water	200.7	
550-84943-3 MSD	FC-CCR-MW60-62217	Total/NA	Water	200.7	

Analysis Batch: 121350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	200.7 Rev 4.4	120825

Metals (Continued)

Analysis Batch: 121350 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	200.7 Rev 4.4	120825
MB 550-120825/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	120825
LCS 550-120825/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	120825
LCSD 550-120825/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-3 MS	FC-CCR-MW60-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-3 MSD	FC-CCR-MW60-62217	Total/NA	Water	200.7 Rev 4.4	120825

Analysis Batch: 121476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	200.7 Rev 4.4	120825

General Chemistry

Analysis Batch: 120869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	SM 2540C	
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	SM 2540C	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	SM 2540C	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	SM 2540C	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	SM 2540C	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	SM 2540C	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	SM 2540C	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	SM 2540C	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 120869 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	SM 2540C	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	SM 2540C	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	SM 2540C	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	SM 2540C	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	SM 2540C	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	SM 2540C	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	SM 2540C	
MB 550-120869/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-120869/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-120869/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-84940-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-84943-13 DU	FC-CCR-MW69-62117	Total/NA	Water	SM 2540C	

Analysis Batch: 120897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	SM 2320B	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	SM 2320B	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	SM 2320B	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	SM 2320B	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	SM 2320B	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	SM 2320B	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	SM 2320B	
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	SM 2320B	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	SM 2320B	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	SM 2320B	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	SM 2320B	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	SM 2320B	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	SM 2320B	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	SM 2320B	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	SM 2320B	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	SM 2320B	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	SM 2320B	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	SM 2320B	
MB 550-120897/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-120897/6	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-120897/20	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-84943-1 DU	FC-CCR-MW7-62217	Total/NA	Water	SM 2320B	
550-84943-11 DU	FC-CCR-MW67-62117	Total/NA	Water	SM 2320B	

Analysis Batch: 120905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 120905 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	SM 4500 H+ B	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-120905/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-120905/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-120905/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-84943-1 DU	FC-CCR-MW7-62217	Total/NA	Water	SM 4500 H+ B	
550-84943-11 DU	FC-CCR-MW67-62117	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 120969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	SM 2540C	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	SM 2540C	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	SM 2540C	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	SM 2540C	
MB 550-120969/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-120969/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-120969/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-84931-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 121451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-121451/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-121451/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-121451/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-85262-F-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 121452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	SM 2320B	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW7-62217 — Lab Sample ID: 550-84943-1

Date Collected: 06/22/17 13:40 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121222	06/28/17 17:45	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121222	06/28/17 18:03	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:08	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 11:00	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW49A-62217 — Lab Sample ID: 550-84943-2

Date Collected: 06/22/17 14:27 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121222	06/28/17 18:21	JAE	TAL PHX
Total/NA	Analysis	300.0		500	121222	06/28/17 18:40	JAE	TAL PHX
Total/NA	Analysis	300.0		10	121501	06/30/17 16:29	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:14	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 21:27	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	121452	07/01/17 14:30	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW60-62217 — Lab Sample ID: 550-84943-3

Date Collected: 06/22/17 11:11 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121222	06/28/17 18:58	JAE	TAL PHX
Total/NA	Analysis	300.0		100	121222	06/28/17 19:17	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:02	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 11:31	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW61-62217 — Lab Sample ID: 550-84943-4

Date Collected: 06/22/17 11:56
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 19:35	JAE	TAL PHX
Total/NA	Analysis	300.0		50	121222	06/28/17 19:53	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:20	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 11:38	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW62-62117 — Lab Sample ID: 550-84943-5

Date Collected: 06/21/17 09:08
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 20:49	JAE	TAL PHX
Total/NA	Analysis	300.0		50	121222	06/28/17 21:07	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:26	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	121452	07/01/17 14:30	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW63-62117 — Lab Sample ID: 550-84943-6

Date Collected: 06/21/17 10:50
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 21:25	JAE	TAL PHX
Total/NA	Analysis	300.0		50	121222	06/28/17 21:44	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:32	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 12:01	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW64-62117 — Lab Sample ID: 550-84943-7

Date Collected: 06/21/17 11:27
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 22:02	JAE	TAL PHX
Total/NA	Analysis	300.0		50	121222	06/28/17 22:21	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:38	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 12:10	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW65-62117 — Lab Sample ID: 550-84943-8

Date Collected: 06/21/17 08:20
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 22:39	JAE	TAL PHX
Total/NA	Analysis	300.0		20	121222	06/28/17 22:57	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:41	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 12:19	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-FD01-62117 — Lab Sample ID: 550-84943-9

Date Collected: 06/21/17 08:20
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 23:16	JAE	TAL PHX
Total/NA	Analysis	300.0		50	121222	06/28/17 23:34	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:43	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 12:28	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW66-62117

Lab Sample ID: 550-84943-10
Date Collected: 06/21/17 09:44
Matrix: Water
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 17:06	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121501	06/30/17 17:24	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:46	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 21:30	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 12:37	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW67-62117

Lab Sample ID: 550-84943-11
Date Collected: 06/21/17 13:26
Matrix: Water
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 17:42	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121501	06/30/17 18:59	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121601	07/03/17 19:08	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:58	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 21:36	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 13:02	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW68-62117

Lab Sample ID: 550-84943-12
Date Collected: 06/21/17 14:08
Matrix: Water
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 19:17	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121501	06/30/17 19:36	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121601	07/03/17 19:27	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:03	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 21:41	CJM	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW68-62117 — Lab Sample ID: 550-84943-12

Date Collected: 06/21/17 14:08
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 13:21	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW69-62117 — Lab Sample ID: 550-84943-13

Date Collected: 06/21/17 12:44
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 19:54	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121501	06/30/17 20:12	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121601	07/03/17 19:45	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:09	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 21:47	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 13:30	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW70-62117 — Lab Sample ID: 550-84943-14

Date Collected: 06/21/17 12:05
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121501	06/30/17 20:31	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121601	07/03/17 20:04	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:15	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 21:53	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 13:41	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW71-62217

Lab Sample ID: 550-84943-15
Date Collected: 06/22/17 08:43
Matrix: Water
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 21:08	JAE	TAL PHX
Total/NA	Analysis	300.0		10	121601	07/03/17 20:22	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121601	07/03/17 20:40	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:21	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 21:56	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 13:51	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW72-62217

Lab Sample ID: 550-84943-16
Date Collected: 06/22/17 07:59
Matrix: Water
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 22:21	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121501	06/30/17 22:40	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121601	07/03/17 20:59	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:27	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 22:01	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 14:02	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120869		YET	TAL PHX
					(Start)	06/26/17 11:21		
					(End)	06/27/17 10:50		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-FD02-62217

Lab Sample ID: 550-84943-17
Date Collected: 06/22/17 07:59
Matrix: Water
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 22:58	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121601	07/03/17 21:17	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:33	CJM	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	121476	06/30/17 22:07	CJM	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-FD02-62217 — Lab Sample ID: 550-84943-17

Date Collected: 06/22/17 07:59
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 14:14	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120969		YET	TAL PHX
					(Start)	06/27/17 10:53		
					(End)	06/28/17 09:30		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW73-62217 — Lab Sample ID: 550-84943-18

Date Collected: 06/22/17 09:24
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121501	06/30/17 23:35	JAE	TAL PHX
Total/NA	Analysis	300.0		100	121501	06/30/17 23:53	JAE	TAL PHX
Total/NA	Analysis	300.0		100	121601	07/03/17 21:36	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:39	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 14:25	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120969		YET	TAL PHX
					(Start)	06/27/17 10:53		
					(End)	06/28/17 09:30		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Client Sample ID: FC-CCR-MW74-62217 — Lab Sample ID: 550-84943-19

Date Collected: 06/22/17 10:04
Date Received: 06/24/17 08:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121501	07/01/17 00:12	JAE	TAL PHX
Total/NA	Analysis	300.0		100	121501	07/01/17 00:30	JAE	TAL PHX
Total/NA	Analysis	300.0		100	121601	07/03/17 21:54	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:45	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 14:36	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120969		YET	TAL PHX
					(Start)	06/27/17 10:53		
					(End)	06/28/17 09:30		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-84943-1

Client Sample ID: FC-CCR-MW75-62217

Lab Sample ID: 550-84943-20

Date Collected: 06/22/17 12:38
Matrix: Water
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	07/01/17 00:48	JAE	TAL PHX
Total/NA	Analysis	300.0		200	121601	07/03/17 22:49	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:51	CJM	TAL PHX
Total/NA	Analysis	SM 2320B		1	120897	06/26/17 14:44	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	120969		YET	TAL PHX
					(Start)	06/27/17 10:53		
					(End)	06/28/17 09:30		
Total/NA	Analysis	SM 4500 H+ B		1	120905	06/26/17 16:02	NEL	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: CCR

TestAmerica Job ID: 550-84943-1

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: CCR

TestAmerica Job ID: 550-84943-1

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
625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
Phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

84943-1 JKR

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

Client Contact	Doug Lavarnway	Doug Lavarnway	6/24/2017
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			
PO #			

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:
FC-CCR-MW7-62217	6/22/2017	1340	G	W	2	N	x	x	x	x	x	x	-01
FC-CCR-MW49A-62217	6/22/2017	1427	G	W	2	N	x	x	x	x	x	x	-02
FC-CCR-MW60-62217	6/22/2017	1111	G	W	2	N	x	x	x	x	x	x	-03
FC-CCR-MW61-62217	6/22/2017	1156	G	W	2	N	x	x	x	x	x	x	-04
FC-CCR-MW62-62117	6/21/2017	908	G	W	2	N	x	x	x	x	x	x	-05
FC-CCR-MW63-62117	6/21/2017	1050	G	W	2	N	x	x	x	x	x	x	-06
FC-CCR-MW64-62117	6/21/2017	1127	G	W	2	N	x	x	x	x	x	x	-07
FC-CCR-MW65-62117	6/21/2017	820	G	W	2	N	x	x	x	x	x	x	-08
FC-CCR-FD01-62117	6/21/2017	820	G	W	2	N	x	x	x	x	x	x	-09

550-84943 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:

(1.1°C, 0.6°C, 1.3°C, 1.0°C) PC

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

Relinquished by: Doug Lavarnway	Company: APS	Date/Time: 6/23 1100	Received by: D Rogers	Company: Red J	Date/Time: 6/23/17 1100
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 6/24/17 0825

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

7/6/2017

'estAmerica Phoenix
625 E Cotton Center Blvd
uite 189
hoenix, AZ 85040
hone 602.437.3340 fax 602.454.9303

Chain of Custody Record

84943-1 JKK

7/6/2017

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

Client Contact	Doug Lavarnway	Doug Lavarnway	6/24/2017	COC No:
.PS Four Corners	928-587-0319	Lab Contact:	Carrier:	2 of 2 COCs
.nd of County Road 6675	Analysis Turnaround Time			Sampler:
ruitland, New Mexico 87416				For Lab Use Only:
928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
xxx) xxx-xxxx FAX				Lab Sampling:
'roject Name: CCR				
ite: Cholla				Job / SDG No.:
' O #				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 200.7 Rev 4.4 (B, Ca, Na, K, Mg)	EPA 300.0 (Cl, F, SO4)	SM 2540C (TDS)	SM 4500-HB (pH)	SM 2320B (HCO3)	Sample Specific Notes:
FC-CCR-MW66-62117	6/21/2017	944	G	W	2	N	x	x	x	x	x	x	-10
FC-CCR-MW67-62117	6/21/2017	1326	G	W	2	N	x	x	x	x	x	x	-11
FC-CCR-MW68-62117	6/21/2017	1408	G	W	2	N	x	x	x	x	x	x	-12
FC-CCR-MW69-62117	6/21/2017	1244	G	W	2	N	x	x	x	x	x	x	-13
FC-CCR-MW70-62117	6/21/2017	1205	G	W	2	N	x	x	x	x	x	x	-14
FC-CCR-MW71-62217	6/22/2017	843	G	W	2	N	x	x	x	x	x	x	-15
FC-CCR-MW72-62217	6/22/2017	759	G	W	2	N	x	x	x	x	x	x	-16
FC-CCR-FD02-62217	6/22/2017	759	G	W	2	N	x	x	x	x	x	x	-17
FC-CCR-MW73-62217	6/22/2017	924	G	W	2	N	x	x	x	x	x	x	-18
FC-CCR-MW74-62217	6/22/2017	1004	G	W	2	N	x	x	x	x	x	x	-19
FC-CCR-MW75-62217	6/22/2017	1238	G	W	2	N	x	x	x	x	x	x	-20

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:

Custody Seals Intact:	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by: Doug Lavarnway	Company: AES	Date/Time: 6-24 1400	Received by: [illegible]	Company: Red J	Date/Time: 6/23/17 11 am
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 6-24-17 0925

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

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-84943-1
SDG Number:

Login Number: 84943
List Number: 1
Creator: Doerr, Bret C

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	