TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
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Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-82216-2
TestAmerica Sample Delivery Group: Cholla
Client Project/Site: CCR

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

Attn: Doug Lavarnway

Authorized for release by:
5/26/2017 7:43:00 AM

Ken Baker, Project Manager II
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LINKS

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

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

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.

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)

Case Narrative

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Job ID: 550-82216-2

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-82216-2

Comments
No additional comments.

Receipt
The samples were received on 5/4/2017 12:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.8º C, 1.4º C, 1.6º C, 1.7º C and 3.6º C.

HPLC/IC
Method(s) 300.0: The following samples was diluted for Fluoride due to the nature of the sample matrix: FC-CCR-MW71-5217 (550-82216-17), FC-CCR-MW72-5217 (550-82216-18), FC-CCR-MW73-5217 (550-82216-19) and FC-CCR-MW74-5217 (550-82216-20). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The following sample was diluted due to the nature of the sample matrix: FC-CCR-MW7-5317 (550-82216-1) and FC-CCR-MW49A-5317 (550-82216-3). Elevated reporting limits (RLs) are provided.

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

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-82216-1	FC-CCR-MW7-5317	Water	05/03/17 11:52	05/04/17 12:30
550-82216-2	FC-CCR-MW8-5317	Water	05/03/17 10:50	05/04/17 12:30
550-82216-3	FC-CCR-MW49A-5317	Water	05/03/17 13:04	05/04/17 12:30
550-82216-5	FC-CCR-MW61-5317	Water	05/03/17 09:21	05/04/17 12:30
550-82216-6	FC-CCR-MW62-5117	Water	05/01/17 14:23	05/04/17 12:30
550-82216-16	FC-CCR-MW70-5117	Water	05/01/17 15:47	05/04/17 12:30
550-82216-17	FC-CCR-MW71-5217	Water	05/02/17 13:00	05/04/17 12:30
550-82216-18	FC-CCR-MW72-5217	Water	05/02/17 13:34	05/04/17 12:30
550-82216-19	FC-CCR-MW73-5217	Water	05/02/17 14:09	05/04/17 12:30
550-82216-20	FC-CCR-MW74-5217	Water	05/02/17 14:48	05/04/17 12:30

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-5317 — Lab Sample ID: 550-82216-1

No Detections.

Client Sample ID: FC-CCR-MW8-5317 — Lab Sample ID: 550-82216-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	6.2	E4	10	5.0	mg/L	20		300.0	Total/NA

Client Sample ID: FC-CCR-MW49A-5317 — Lab Sample ID: 550-82216-3

No Detections.

Client Sample ID: FC-CCR-MW61-5317 — Lab Sample ID: 550-82216-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.3	E4	5.0	2.5	mg/L	10		300.0	Total/NA

Client Sample ID: FC-CCR-MW62-5117 — Lab Sample ID: 550-82216-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.8	E4	5.0	2.5	mg/L	10		300.0	Total/NA

Client Sample ID: FC-CCR-MW70-5117 — Lab Sample ID: 550-82216-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	4.3	E4	5.0	2.5	mg/L	10		300.0	Total/NA

Client Sample ID: FC-CCR-MW71-5217 — Lab Sample ID: 550-82216-17

No Detections.

Client Sample ID: FC-CCR-MW72-5217 — Lab Sample ID: 550-82216-18

No Detections.

Client Sample ID: FC-CCR-MW73-5217 — Lab Sample ID: 550-82216-19

No Detections.

Client Sample ID: FC-CCR-MW74-5217 — Lab Sample ID: 550-82216-20

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-5317 — Lab Sample ID: 550-82216-1

Date Collected: 05/03/17 11:52 — **Matrix: Water**
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	10	5.0	mg/L			05/18/17 15:00	20

Client Sample ID: FC-CCR-MW8-5317 — Lab Sample ID: 550-82216-2

Date Collected: 05/03/17 10:50 — **Matrix: Water**
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**6.2**	**E4**	10	5.0	mg/L			05/18/17 15:26	20

Client Sample ID: FC-CCR-MW49A-5317 — Lab Sample ID: 550-82216-3

Date Collected: 05/03/17 13:04 — **Matrix: Water**
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	25	13	mg/L			05/18/17 16:27	50

Client Sample ID: FC-CCR-MW61-5317 — Lab Sample ID: 550-82216-5

Date Collected: 05/03/17 09:21 — **Matrix: Water**
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**3.3**	**E4**	5.0	2.5	mg/L			05/18/17 17:20	10

Client Sample ID: FC-CCR-MW62-5117 — Lab Sample ID: 550-82216-6

Date Collected: 05/01/17 14:23 — **Matrix: Water**
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**3.8**	**E4**	5.0	2.5	mg/L			05/18/17 17:46	10

Client Sample ID: FC-CCR-MW70-5117 — Lab Sample ID: 550-82216-16

Date Collected: 05/01/17 15:47 — **Matrix: Water**
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**4.3**	**E4**	5.0	2.5	mg/L			05/19/17 00:14	10

Client Sample ID: FC-CCR-MW71-5217 — Lab Sample ID: 550-82216-17

Date Collected: 05/02/17 13:00 — **Matrix: Water**
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	10	5.0	mg/L			05/19/17 08:57	20

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Client Sample ID: FC-CCR-MW72-5217

Lab Sample ID: 550-82216-18
Date Collected: 05/02/17 13:34
Matrix: Water
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	10	5.0	mg/L			05/19/17 09:45	20

Client Sample ID: FC-CCR-MW73-5217

Lab Sample ID: 550-82216-19
Date Collected: 05/02/17 14:09
Matrix: Water
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	10	5.0	mg/L			05/19/17 10:33	20

Client Sample ID: FC-CCR-MW74-5217

Lab Sample ID: 550-82216-20
Date Collected: 05/02/17 14:48
Matrix: Water
Date Received: 05/04/17 12:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	25	13	mg/L			05/19/17 12:10	50

QC Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-406851/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 406851

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	0.50	0.25	mg/L			05/18/17 10:44	1

Lab Sample ID: LCS 440-406851/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 406851

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	5.00	4.77		mg/L		95	90 - 110

Lab Sample ID: LCSD 440-406851/1064 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 406851

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	5.00	5.18		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-82216-6 MS — **Client Sample ID: FC-CCR-MW62-5117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 406851

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	3.8	E4	50.0	51.8		mg/L		96	80 - 120

Lab Sample ID: 550-82216-6 MSD — **Client Sample ID: FC-CCR-MW62-5117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 406851

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	3.8	E4	50.0	50.1		mg/L		93	80 - 120	3	20

Lab Sample ID: MB 440-406944/14 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 406944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	0.50	0.25	mg/L			05/19/17 00:35	1

Lab Sample ID: LCS 440-406944/12 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 406944

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	5.00	4.73		mg/L		95	90 - 110

Lab Sample ID: LCSD 440-406944/13 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 406944

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	5.00	4.66		mg/L		93	90 - 110	1	20

QC Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Lab Sample ID: 440-184695-A-4 MS
Matrix: Water
Analysis Batch: 406944

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		
Fluoride	5.8	M1	5.00	13.2	M1	mg/L		147	80 - 120		

Lab Sample ID: 440-184695-A-4 MSD
Matrix: Water
Analysis Batch: 406944

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
Fluoride	5.8	M1	5.00	13.1	M1	mg/L		146	80 - 120	1	20

QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

HPLC/IC

Analysis Batch: 406851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-82216-1	FC-CCR-MW7-5317	Total/NA	Water	300.0	
550-82216-2	FC-CCR-MW8-5317	Total/NA	Water	300.0	
550-82216-3	FC-CCR-MW49A-5317	Total/NA	Water	300.0	
550-82216-5	FC-CCR-MW61-5317	Total/NA	Water	300.0	
550-82216-6	FC-CCR-MW62-5117	Total/NA	Water	300.0	
550-82216-16	FC-CCR-MW70-5117	Total/NA	Water	300.0	
MB 440-406851/6	Method Blank	Total/NA	Water	300.0	
LCS 440-406851/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 440-406851/1064	Lab Control Sample Dup	Total/NA	Water	300.0	
550-82216-6 MS	FC-CCR-MW62-5117	Total/NA	Water	300.0	
550-82216-6 MSD	FC-CCR-MW62-5117	Total/NA	Water	300.0	

Analysis Batch: 406944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-82216-17	FC-CCR-MW71-5217	Total/NA	Water	300.0	
550-82216-18	FC-CCR-MW72-5217	Total/NA	Water	300.0	
550-82216-19	FC-CCR-MW73-5217	Total/NA	Water	300.0	
550-82216-20	FC-CCR-MW74-5217	Total/NA	Water	300.0	
MB 440-406944/14	Method Blank	Total/NA	Water	300.0	
LCS 440-406944/12	Lab Control Sample	Total/NA	Water	300.0	
LCSD 440-406944/13	Lab Control Sample Dup	Total/NA	Water	300.0	
440-184695-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
440-184695-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-5317 — Lab Sample ID: 550-82216-1

Date Collected: 05/03/17 11:52 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	406851	05/18/17 15:00	NTN	TAL IRV

Client Sample ID: FC-CCR-MW8-5317 — Lab Sample ID: 550-82216-2

Date Collected: 05/03/17 10:50 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	406851	05/18/17 15:26	NTN	TAL IRV

Client Sample ID: FC-CCR-MW49A-5317 — Lab Sample ID: 550-82216-3

Date Collected: 05/03/17 13:04 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50	406851	05/18/17 16:27	NTN	TAL IRV

Client Sample ID: FC-CCR-MW61-5317 — Lab Sample ID: 550-82216-5

Date Collected: 05/03/17 09:21 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	406851	05/18/17 17:20	NTN	TAL IRV

Client Sample ID: FC-CCR-MW62-5117 — Lab Sample ID: 550-82216-6

Date Collected: 05/01/17 14:23 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	406851	05/18/17 17:46	NTN	TAL IRV

Client Sample ID: FC-CCR-MW70-5117 — Lab Sample ID: 550-82216-16

Date Collected: 05/01/17 15:47 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	406851	05/19/17 00:14	NTN	TAL IRV

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Client Sample ID: FC-CCR-MW71-5217 — Lab Sample ID: 550-82216-17

Date Collected: 05/02/17 13:00 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	406944	05/19/17 08:57	NTN	TAL IRV

Client Sample ID: FC-CCR-MW72-5217 — Lab Sample ID: 550-82216-18

Date Collected: 05/02/17 13:34 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	406944	05/19/17 09:45	NTN	TAL IRV

Client Sample ID: FC-CCR-MW73-5217 — Lab Sample ID: 550-82216-19

Date Collected: 05/02/17 14:09 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	406944	05/19/17 10:33	NTN	TAL IRV

Client Sample ID: FC-CCR-MW74-5217 — Lab Sample ID: 550-82216-20

Date Collected: 05/02/17 14:48 — **Matrix: Water**
Date Received: 05/04/17 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50	406944	05/19/17 12:10	NTN	TAL IRV

Laboratory References:

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

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

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	06-09-17 *

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arizona	State Program	9	AZ0671	10-14-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-82216-2
SDG: Cholla

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

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

TestAmerica Phoenix
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82216

Chain of Custody Record

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

5/26/2017

Client Contact	Doug Lavarnway	Doug Lavarnway	5/4/2017
APS Four Corners	928-587-0319	Lab Contact:	Carrier:
End of County Road 6675	**Analysis Turnaround Time**		
Fruitland, New Mexico 87416			
(928) 587-0319 Phone	TAT if different from Below _____		
(xxx) xxx-xxxx FAX			
Project Name: CCR			
Site: Cholla			
P O #			

COC No: 1 of 6 COCs

Sampler:

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

Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 200.7 Rev 4.4 (B, Ca, Na, K, Mg)	EPA 300.0 (Cl, F, SO4)	SM 2540C (TDS)	SM 4500-HB (pH)	SM 2320B (HCO3)	Sample Specific Notes:
FC-CCR-MW7-5317 -01	5/3/2017	1152	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW8-5317 -02	5/3/2017	1050	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW49A-5317 -03	5/3/2017	1304	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW60-5317 -04	5/3/2017	840	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW61-5317 -05	5/3/2017	921	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW62-5117 -06	5/1/2017	1423	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW63-5217 -07	5/2/2017	849	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW64-5217 -08	5/2/2017	759	G	W	2	N	x	x	x	x	x	x	
FC-CCR-FD02-5217 -09	5/2/2017	759	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW65-5117 -10	5/1/2017	1327	G	W	2	N	x	x	x	x	x	x	
FC-CCR-FD01-5117 -11	5/1/2017	1327	G	W	2	N	x	x	x	x	x	x	

550-82216 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:

0.8°C, 3.6°C, 1.7°C, 1.6°C, 1.4°C

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Doug Lavarnway	APS	5/4 900	D Rogers	Red J	5/4/17 8:00a
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 5-4-17 1230

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

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

82216

Chain of Custody Record

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

5/26/2017

Client Contact	Doug Lavarnway	Doug Lavarnway	5/4/2017
APS Four Corners	928-587-0319	**Lab Contact:**	**Carrier:**
End of County Road 6675	**Analysis Turnaround Time**		
Fruitland, New Mexico 87416			
(928) 587-0319 Phone	TAT if different from Below _____		
(xxx) xxx-xxxx FAX			
Project Name: CCR			
Site: Cholla			
P O #			

COC No: 2 of 6 COCs

Sampler:

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

Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 200.7 Rev 4.4 (B, Ca, Na, K, Mg)	EPA 300.0 (Cl, F, SO4)	SM 2540C (TDS)	SM 4500-HB (pH)	SM 2320B (HCO3)	Sample Specific Notes:
FC-CCR-MW66-5117 -12	5/1/2017	1505	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW67-5217 -13	5/2/2017	928	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW68-5217 -14	5/2/2017	1004	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW69-5217 -15	5/2/2017	1036	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW70-5117 -16	5/1/2017	1547	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW71-5217 -17	5/2/2017	1300	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW72-5217 -18	5/2/2017	1334	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW73-5217 -19	5/2/2017	1409	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW74-5217 -20	5/2/2017	1448	G	W	2	N	x	x	x	x	x	x	
FC-CCR-MW75-5317 -21	5/3/2017	950	G	W	2	N	x	x	x	x	x	x	

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

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

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

Special Instructions/QC Requirements & Comments:

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Doug Lavarnway	APS	5/4 800	D Rogers	Red J	5/4/17 8:00a
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 5-4-17 1230

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

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-82216-2
SDG Number: Cholla

Login Number: 82216
List Number: 1
Creator: Gravlin, Andrea

List Source: TestAmerica Phoenix

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

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-82216-2
SDG Number: Cholla

Login Number: 82216
List Number: 2
Creator: Salas, Margarita

List Source: TestAmerica Irvine
List Creation: 05/18/17 11:31 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	Not Present
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?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	