



March 14, 2018

Johnny Pappas
Arizona Minerals Inc.
3845 North Business Center Drive, Suite 115
Tucson, AZ 85705

TEL (802) 235-5563
FAX

Work Order No.: 18B0633

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 02/26/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Kevin Brim
Project Manager

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18B0633-01	POC#2-022618	Ground Water	02/26/2018 0936

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

- E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
 - M3 The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
 - M7 Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.
- All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.
- ND Not Detected at or above the PQL
 - PQL Practical Quantitation Limit
 - DF Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Lab Sample ID: 18B0633-01

Client Sample ID: POC#2-022618
Collection Date/Time: 02/26/2018 0936
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	02/27/2018 1002	02/27/2018 1429	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	2.5		0.30		mg/L	1	02/27/2018 1655	03/13/2018 1254	MH
Zinc	5.9		0.20	M3	mg/L	5	02/27/2018 1655	03/13/2018 1413	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Arsenic	0.010		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Barium	0.019		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Beryllium	0.00062		0.00050		mg/L	2	02/27/2018 1655	03/06/2018 1427	MH
Cadmium	0.0056		0.00025		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Chromium	0.0011		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Copper	0.0020		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Lead	0.0095		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Manganese	24		0.013		mg/L	50	02/27/2018 1655	03/06/2018 1048	MH
Nickel	0.057		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Selenium	0.0017		0.0025		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Thallium	ND		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	03/05/2018 1139	03/05/2018 1605	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.83		0.50		mg/L	1	02/26/2018 1642	02/26/2018 1908	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	02/26/2018 1642	02/26/2018 1908	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	02/27/2018 1002	02/27/2018 1429	AP
Sulfate	2200		500		mg/L	100	02/27/2018 1620	02/28/2018 0324	AP
Cyanide-E335.4									
Cyanide	ND		0.10		mg/L	1	03/05/2018 0910	03/06/2018 1535	AP

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Lab Sample ID: 18B0633-01

Client Sample ID: POC#2-022618
Collection Date/Time: 02/26/2018 0936
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	180		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Alkalinity, Total (As CaCO3)	180		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3200		20		mg/L	1	03/01/2018 0830	03/02/2018 1625	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1803028 - E 200.8 (5.4)										
Blank (1803028-BLK1)										
Prepared & Analyzed: 03/05/2018										
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Manganese	ND	0.00025	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1803028-BS1)										
Prepared & Analyzed: 03/05/2018										
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Barium	0.050	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		101	85-115			
Copper	0.051	0.00050	mg/L	0.05000		101	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Manganese	0.052	0.00025	mg/L	0.05000		105	85-115			
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115			
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115			
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115			
LCS Dup (1803028-BSD1)										
Prepared & Analyzed: 03/05/2018										
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115	0.5	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.5	20	
Barium	0.050	0.00050	mg/L	0.05000		101	85-115	0.4	20	
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115	0.4	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	0.4	20	
Chromium	0.051	0.00050	mg/L	0.05000		101	85-115	0.4	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	0.09	20	
Manganese	0.053	0.00025	mg/L	0.05000		106	85-115	0.8	20	
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115	0.3	20	
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115	0.2	20	
Thallium	0.051	0.00050	mg/L	0.05000		102	85-115	0.8	20	

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QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803028 - E 200.8 (5.4)										
Matrix Spike (1803028-MS1)		Source: 18B0491-01			Prepared & Analyzed: 03/05/2018					
Antimony	0.047	0.00050	mg/L	0.05000	0.0010	92	70-130			
Arsenic	0.067	0.00050	mg/L	0.05000	0.016	102	70-130			
Barium	0.050	0.00050	mg/L	0.05000	0.0043	91	70-130			
Beryllium	0.046	0.00025	mg/L	0.05000	ND	91	70-130			
Cadmium	0.046	0.00025	mg/L	0.05000	ND	92	70-130			
Chromium	0.046	0.00050	mg/L	0.05000	0.00070	91	70-130			
Copper	0.047	0.00050	mg/L	0.05000	0.0019	90	70-130			
Lead	0.046	0.00050	mg/L	0.05000	0.00013	91	70-130			
Manganese	0.052	0.00025	mg/L	0.05000	0.0049	94	70-130			
Nickel	0.046	0.00050	mg/L	0.05000	0.00080	90	70-130			
Selenium	0.055	0.0025	mg/L	0.05000	0.00098	108	70-130			
Thallium	0.046	0.00050	mg/L	0.05000	ND	92	70-130			
Batch 1803032 - E 245.1										
Blank (1803032-BLK1)		Prepared & Analyzed: 03/05/2018								
Mercury	ND	0.0010	mg/L							
LCS (1803032-BS1)		Prepared & Analyzed: 03/05/2018								
Mercury	0.0047	0.0010	mg/L	0.005000		93	85-115			
LCS Dup (1803032-BSD1)		Prepared & Analyzed: 03/05/2018								
Mercury	0.0049	0.0010	mg/L	0.005000		97	85-115	4	20	
Matrix Spike (1803032-MS1)		Source: 18B0611-01			Prepared & Analyzed: 03/05/2018					
Mercury	0.0041	0.0010	mg/L	0.005000	ND	82	85-115			M7
Matrix Spike Dup (1803032-MSD1)		Source: 18B0611-01			Prepared & Analyzed: 03/05/2018					
Mercury	0.0033	0.0010	mg/L	0.005000	ND	66	85-115	22	20	M7
Batch 1803139 - E 200.7 (4.4)										
Blank (1803139-BLK1)		Prepared & Analyzed: 03/13/2018								
Iron	ND	0.30	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1803139-BS1)		Prepared & Analyzed: 03/13/2018								
Iron	0.96	0.30	mg/L	1.000		96	85-115			
Zinc	0.51	0.040	mg/L	0.5000		103	85-115			
LCS Dup (1803139-BSD1)		Prepared & Analyzed: 03/13/2018								
Iron	0.99	0.30	mg/L	1.000		99	85-115	3	20	
Zinc	0.52	0.040	mg/L	0.5000		104	85-115	1	20	
Matrix Spike (1803139-MS1)		Source: 18B0633-01			Prepared & Analyzed: 03/13/2018					
Iron	3.5	0.60	mg/L	1.000	2.5	92	70-130			
Zinc	5.8	0.080	mg/L	0.5000	5.9	NR	70-130			M3

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QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802283 - SM2320B										
LCS (1802283-BS1)				Prepared & Analyzed: 02/27/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		95	90-110			
LCS Dup (1802283-BSD1)				Prepared & Analyzed: 02/27/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110	0.8	10	
Matrix Spike (1802283-MS1)				Source: 18B0501-01		Prepared & Analyzed: 02/27/2018				
Alkalinity, Total (As CaCO3)	390	2.0	mg/L	250.0	150	94	85-115			
Matrix Spike Dup (1802283-MSD1)				Source: 18B0501-01		Prepared & Analyzed: 02/27/2018				
Alkalinity, Total (As CaCO3)	390	2.0	mg/L	250.0	150	94	85-115	0	10	
Batch 1803002 - SM2540 C										
Duplicate (1803002-DUP1)				Source: 18B0632-03		Prepared: 03/01/2018 Analyzed: 03/02/2018				
Total Dissolved Solids (Residue, Filterable)	490	20	mg/L		510			5	5	
Batch 1803030 - E335.4										
Blank (1803030-BLK1)				Prepared: 03/05/2018 Analyzed: 03/06/2018						
Cyanide	ND	0.10	mg/L							
LCS (1803030-BS1)				Prepared: 03/05/2018 Analyzed: 03/06/2018						
Cyanide	2.1	0.10	mg/L	2.000		106	90-110			
LCS Dup (1803030-BSD1)				Prepared: 03/05/2018 Analyzed: 03/06/2018						
Cyanide	2.1	0.10	mg/L	2.000		104	90-110	2	20	
Matrix Spike (1803030-MS1)				Source: 18B0611-01		Prepared: 03/05/2018 Analyzed: 03/06/2018				
Cyanide	2.1	0.10	mg/L	2.000	ND	104	90-110			
Matrix Spike Dup (1803030-MSD1)				Source: 18B0611-01		Prepared: 03/05/2018 Analyzed: 03/06/2018				
Cyanide	1.9	0.10	mg/L	2.000	ND	97	90-110	8	20	

Client: Arizona Minerals Inc.
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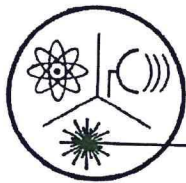
QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Qual
Batch 1802266 - E300.0 (2.1)										
Blank (1802266-BLK1) Prepared & Analyzed: 02/26/2018										
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1802266-BS1) Prepared & Analyzed: 02/26/2018										
Fluoride	2.0	0.50	mg/L	2.000		101	90-110			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		99	90-110			
Sulfate	13	5.0	mg/L	12.50		100	90-110			
LCS Dup (1802266-BSD1) Prepared & Analyzed: 02/26/2018										
Fluoride	2.0	0.50	mg/L	2.000		102	90-110	0.7	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		100	90-110	0.8	10	
Sulfate	13	5.0	mg/L	12.50		100	90-110	0.5	10	
Matrix Spike (1802266-MS1) Source: 18B0627-01 Prepared & Analyzed: 02/26/2018										
Nitrogen, Nitrate (As N)	7.7	0.50	mg/L	5.000	1.8	118	80-120			
Sulfate	33	5.0	mg/L	12.50	20	105	80-120			
Matrix Spike (1802266-MS3) Source: 18B0624-02 Prepared & Analyzed: 03/05/2018										
Fluoride	2.2	0.50	mg/L	2.000	0.26	96	80-120			
Matrix Spike Dup (1802266-MSD1) Source: 18B0627-01 Prepared & Analyzed: 02/26/2018										
Nitrogen, Nitrate (As N)	7.7	0.50	mg/L	5.000	1.8	118	80-120	0.4	10	
Sulfate	33	5.0	mg/L	12.50	20	106	80-120	0.1	10	
Matrix Spike Dup (1802266-MSD3) Source: 18B0624-02 Prepared & Analyzed: 03/05/2018										
Fluoride	2.2	0.50	mg/L	2.000	0.26	96	80-120	0.09	10	
Batch 1802278 - E300.0 (2.1)										
Blank (1802278-BLK1) Prepared & Analyzed: 02/27/2018										
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
LCS (1802278-BS1) Prepared & Analyzed: 02/27/2018										
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		105	90-110			
LCS Dup (1802278-BSD1) Prepared & Analyzed: 02/27/2018										
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		106	90-110	0.7	10	
Matrix Spike (1802278-MS3) Source: 18B0638-01 Prepared: 02/27/2018 Analyzed: 02/28/2018										
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	97	80-120			
Matrix Spike (1802278-MS4) Source: 18B0642-02 Prepared: 02/28/2018 Analyzed: 03/01/2018										
Nitrogen, Nitrite (As N)	2.1	0.10	mg/L	2.500	ND	84	80-120			
Matrix Spike Dup (1802278-MSD3) Source: 18B0638-01 Prepared: 02/27/2018 Analyzed: 02/28/2018										
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	97	80-120	0.8	10	
Matrix Spike Dup (1802278-MSD4) Source: 18B0642-02 Prepared: 02/28/2018 Analyzed: 03/01/2018										
Nitrogen, Nitrite (As N)	2.1	0.10	mg/L	2.500	ND	84	80-120	0.05	10	

**POC #2 – MW3
Monthly**

LABORATORY			
Analyte – ICP/MS	Total	Dissolved	Other
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
 Website: www.radsafe.com

(480) 897-9459
 FAX (480) 892-5446

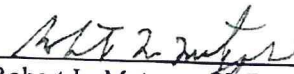
Radiochemical Activity in Water (pCi/L)

Turner Laboratories
 2445 N. Coyote Drive, Ste. 104
 Tucson, AZ 85745

Sampling Date: February 26, 2018
 Sample Received: February 28, 2018
 Analysis Completed: March 12, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18B0633-01	4.8 ± 1.3	< 0.5	< 0.7	< 0.7

Date of Analysis	3/7/2018	3/2/2018	3/2/2018	3/2/2018
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 Robert L. Metzger, Ph.D., C.H.P. 3/12/2018
 Date
 Laboratory License Number AZ0462

Arizona Department of Environmental Quality
Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
 Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____

PWS Name: _____

February 26, 2018 9:36 (24 hour clock)

Sample Date Sample Time

Owner/Contact Person _____

Owner/Contact Fax Number _____

Owner/Contact Phone Number _____

Sample Collection Point

EPDS # _____

Compliance Sample Type:

- Reduced Monitoring
- Quarterly
- Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	3/7/2018	4.8 ± 1.3	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	3/2/2018	< 0.7	
GammaRay HPGE		1 pCi/L	Radium 226	4020	3/2/2018	< 0.5	
GammaRay HPGE		1 pCi/L	Radium 228	4030	3/2/2018	< 0.7	

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE59999 _____

Lab ID Number: AZ0462 _____

Lab Name: Radiation Safety Engineering, Inc. _____

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459 _____

Comments: 18B0633-01 _____

Authorized Signature:  _____

Date Public Water System Notified: _____

SUBCONTRACT ORDER

Turner Laboratories, Inc.


18B0633

SENDING LABORATORY:


Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18B0633-01 Drinking Water Sampled:02/26/2018 09:36			
Radiochemistry, Radium 226/228	03/28/2018 09:36		
Radiochemistry, Gross Alpha	08/25/2018 09:36		
Containers Supplied:			

59999

Released By  Date 2/28/18 16:00 Received By LOS Date 2/28/18 16:00

Released By _____ Date _____ Received By _____ Date _____



August 21, 2020

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 18C0641
Order Name: Surface Water

RE: Surface Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 03/27/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Kevin Brim
Project Manager

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

Order: Surface Water

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18C0641-01	POC#2-32718	Ground Water	03/27/2018 0945

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

M7 Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.

Q5 Sample was received with inadequate chemical preservation, but preserved by the laboratory.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 08/21/2020

Client: Arizona Minerals Inc.
 Project: Surface Water
 Work Order: 18C0641
 Lab Sample ID: 18C0641-01

Client Sample ID: POC#2-32718
 Collection Date/Time: 03/27/2018 0945
 Matrix: Ground Water
 Order Name: Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	03/27/2018 1624	03/27/2018 2242	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	1.2		0.30		mg/L	1	03/30/2018 0800	04/02/2018 1545	MH
Manganese	25		0.20		mg/L	10	03/30/2018 0800	04/02/2018 1542	MH
Zinc	5.8		0.40		mg/L	10	03/30/2018 0800	04/02/2018 1542	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Arsenic	0.0087		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Barium	0.022		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Beryllium	0.00045		0.00025		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Cadmium	0.0057		0.00025		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Chromium	ND		0.00050		mg/L	1	03/30/2018 0800	04/02/2018 1446	MH
Copper	0.0010		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Lead	ND		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Nickel	0.072		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Selenium	0.0028		0.0025		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Thallium	ND		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	04/06/2018 0940	04/06/2018 1526	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	03/27/2018 1624	03/27/2018 2242	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	03/27/2018 1624	03/27/2018 2242	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	03/27/2018 1624	03/27/2018 2242	AP
Sulfate	2200		500		mg/L	100	03/28/2018 1615	03/28/2018 1727	AP
Cyanide-E335.4									
Cyanide	ND		0.10	Q5	mg/L	1	04/03/2018 0915	04/04/2018 1635	AP

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Lab Sample ID: 18C0641-01

Client Sample ID: POC#2-32718
Collection Date/Time: 03/27/2018 0945
Matrix: Ground Water
Order Name: Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	190		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Alkalinity, Total (As CaCO3)	190		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	03/28/2018 0830	03/30/2018 1600	EJ

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803315 - E 200.8 (5.4)										
Blank (1803315-BLK1)										
Prepared & Analyzed: 03/30/2018										
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1803315-BS1)										
Prepared & Analyzed: 03/30/2018										
Antimony	0.045	0.00050	mg/L	0.05000		90	85-115			
Arsenic	0.046	0.00050	mg/L	0.05000		91	85-115			
Barium	0.046	0.00050	mg/L	0.05000		91	85-115			
Beryllium	0.046	0.00025	mg/L	0.05000		91	85-115			
Cadmium	0.046	0.00025	mg/L	0.05000		92	85-115			
Chromium	0.047	0.00050	mg/L	0.05000		94	85-115			
Copper	0.046	0.00050	mg/L	0.05000		92	85-115			
Lead	0.045	0.00050	mg/L	0.05000		90	85-115			
Nickel	0.046	0.00050	mg/L	0.05000		92	85-115			
Selenium	0.046	0.0025	mg/L	0.05000		92	85-115			
Thallium	0.046	0.00050	mg/L	0.05000		92	85-115			
LCS Dup (1803315-BSD1)										
Prepared & Analyzed: 03/30/2018										
Antimony	0.045	0.00050	mg/L	0.05000		90	85-115	0.3	20	
Arsenic	0.046	0.00050	mg/L	0.05000		92	85-115	0.8	20	
Barium	0.045	0.00050	mg/L	0.05000		90	85-115	1	20	
Beryllium	0.045	0.00025	mg/L	0.05000		91	85-115	0.8	20	
Cadmium	0.046	0.00025	mg/L	0.05000		91	85-115	0.8	20	
Chromium	0.047	0.00050	mg/L	0.05000		95	85-115	0.9	20	
Copper	0.046	0.00050	mg/L	0.05000		93	85-115	1	20	
Lead	0.045	0.00050	mg/L	0.05000		90	85-115	0.02	20	
Nickel	0.047	0.00050	mg/L	0.05000		93	85-115	1	20	
Selenium	0.047	0.0025	mg/L	0.05000		95	85-115	3	20	
Thallium	0.046	0.00050	mg/L	0.05000		92	85-115	0.6	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 1803315 - E 200.8 (5.4)										
Matrix Spike (1803315-MS1)		Source: 18C0648-06			Prepared & Analyzed: 03/30/2018					
Antimony	0.049	0.00050	mg/L	0.05000	0.0029	92	70-130			
Arsenic	0.059	0.00050	mg/L	0.05000	0.0055	107	70-130			
Barium	0.064	0.00050	mg/L	0.05000	0.014	100	70-130			
Beryllium	0.027	0.00025	mg/L	0.05000	0.000084	53	70-130			M7
Cadmium	0.042	0.00025	mg/L	0.05000	0.00026	84	70-130			
Chromium	0.048	0.00050	mg/L	0.05000	0.00034	95	70-130			
Copper	0.045	0.00050	mg/L	0.05000	0.0057	78	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.00018	96	70-130			
Nickel	0.059	0.00050	mg/L	0.05000	0.016	87	70-130			
Selenium	0.064	0.0025	mg/L	0.05000	0.0016	125	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.00039	99	70-130			
Batch 1803317 - E 200.7 (4.4)										
Blank (1803317-BLK1)		Prepared & Analyzed: 04/02/2018								
Iron	ND	0.30	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1803317-BS1)		Prepared & Analyzed: 04/02/2018								
Iron	1.0	0.30	mg/L	1.000		102	85-115			
Manganese	0.52	0.020	mg/L	0.5000		105	85-115			
Zinc	0.52	0.040	mg/L	0.5000		104	85-115			
LCS Dup (1803317-BSD1)		Prepared & Analyzed: 04/02/2018								
Iron	1.0	0.30	mg/L	1.000		101	85-115	2	20	
Manganese	0.51	0.020	mg/L	0.5000		103	85-115	2	20	
Zinc	0.51	0.040	mg/L	0.5000		103	85-115	1	20	
Matrix Spike (1803317-MS1)		Source: 18C0660-01			Prepared & Analyzed: 04/02/2018					
Iron	0.99	0.30	mg/L	1.000	0.020	97	70-130			
Manganese	0.50	0.020	mg/L	0.5000	0.010	98	70-130			
Zinc	0.54	0.040	mg/L	0.5000	0.034	100	70-130			
Batch 1804065 - E 245.1										
Blank (1804065-BLK1)		Prepared & Analyzed: 04/06/2018								
Mercury	ND	0.0010	mg/L							
LCS (1804065-BS1)		Prepared & Analyzed: 04/06/2018								
Mercury	0.0048	0.0010	mg/L	0.005000		96	85-115			
LCS Dup (1804065-BSD1)		Prepared & Analyzed: 04/06/2018								
Mercury	0.0051	0.0010	mg/L	0.005000		102	85-115	6	20	
Matrix Spike (1804065-MS1)		Source: 18C0606-01			Prepared & Analyzed: 04/06/2018					
Mercury	0.0050	0.0010	mg/L	0.005000	ND	99	85-115			
Matrix Spike Dup (1804065-MSD1)		Source: 18C0606-01			Prepared & Analyzed: 04/06/2018					
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115	0.6	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803287 - SM2540 C										
Duplicate (1803287-DUP1) Source: 18C0639-01 Prepared: 03/28/2018 Analyzed: 03/29/2018										
Total Dissolved Solids (Residue, Filterable)	410	20	mg/L		420			1	5	
Batch 1804011 - SM2320B										
LCS (1804011-BS1) Prepared & Analyzed: 04/02/2018										
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		98	90-110			
LCS Dup (1804011-BSD1) Prepared & Analyzed: 04/02/2018										
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110	2	10	
Matrix Spike (1804011-MS1) Source: 18C0693-01 Prepared & Analyzed: 04/02/2018										
Alkalinity, Total (As CaCO3)	380	2.0	mg/L	250.0	150	93	85-115			
Matrix Spike Dup (1804011-MSD1) Source: 18C0693-01 Prepared & Analyzed: 04/02/2018										
Alkalinity, Total (As CaCO3)	390	2.0	mg/L	250.0	150	94	85-115	0.5	10	
Batch 1804049 - E335.4										
Blank (1804049-BLK1) Prepared: 04/03/2018 Analyzed: 04/04/2018										
Cyanide	ND	0.10	mg/L							
LCS (1804049-BS1) Prepared: 04/03/2018 Analyzed: 04/04/2018										
Cyanide	2.1	0.10	mg/L	2.000		107	90-110			
LCS Dup (1804049-BSD1) Prepared: 04/03/2018 Analyzed: 04/04/2018										
Cyanide	2.2	0.10	mg/L	2.000		109	90-110	2	20	
Matrix Spike (1804049-MS1) Source: 18C0606-01 Prepared: 04/03/2018 Analyzed: 04/04/2018										
Cyanide	2.0	0.10	mg/L	2.000	ND	102	90-110			
Matrix Spike Dup (1804049-MSD1) Source: 18C0606-01 Prepared: 04/03/2018 Analyzed: 04/04/2018										
Cyanide	2.1	0.10	mg/L	2.000	ND	105	90-110	3	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

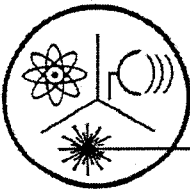
QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1803274 - E300.0 (2.1)										
Blank (1803274-BLK1)				Prepared & Analyzed: 03/27/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1803274-BS1)				Prepared & Analyzed: 03/27/2018						
Fluoride	2.1	0.50	mg/L	2.000		103	90-110			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		98	90-110			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		95	90-110			
Sulfate	12	5.0	mg/L	12.50		97	90-110			
LCS Dup (1803274-BSD1)				Prepared & Analyzed: 03/27/2018						
Fluoride	2.0	0.50	mg/L	2.000		102	90-110	1	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110	0.3	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500		92	90-110	3	10	
Sulfate	12	5.0	mg/L	12.50		97	90-110	0.02	10	
Matrix Spike (1803274-MS1)		Source: 18C0637-02		Prepared: 03/27/2018 Analyzed: 03/28/2018						
Fluoride	2.1	0.50	mg/L	2.000	0.044	103	80-120			
Nitrogen, Nitrate (As N)	5.9	0.50	mg/L	5.000	1.2	95	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	91	80-120			
Sulfate	14	5.0	mg/L	12.50	2.2	91	80-120			
Matrix Spike (1803274-MS2)		Source: 18C0647-08		Prepared: 03/27/2018 Analyzed: 03/28/2018						
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.22	95	80-120			
Sulfate	14	5.0	mg/L	12.50	2.2	91	80-120			
Matrix Spike Dup (1803274-MSD1)		Source: 18C0637-02		Prepared: 03/27/2018 Analyzed: 03/28/2018						
Fluoride	2.1	0.50	mg/L	2.000	0.044	103	80-120	0.5	10	
Nitrogen, Nitrate (As N)	5.9	0.50	mg/L	5.000	1.2	94	80-120	0.9	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	90	80-120	0.4	10	
Sulfate	13	5.0	mg/L	12.50	2.2	90	80-120	1	10	
Matrix Spike Dup (1803274-MSD2)		Source: 18C0647-08		Prepared: 03/27/2018 Analyzed: 03/28/2018						
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.22	95	80-120	0.3	10	
Sulfate	14	5.0	mg/L	12.50	2.2	91	80-120	0.02	10	

**POC #2 – MW3
Monthly**

LABORATORY			
Analyte – ICP/MS	Total	Dissolved	Other
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

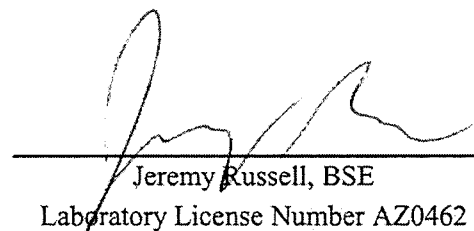
Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: March 27, 2018
Sample Received: March 28, 2018
Analysis Completed: August 20, 2020

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18C0641-01	4.8 ± 1.3	< 0.5	< 0.6	< 0.6

Date of Analysis	4/4/2018	3/30/2018	3/30/2018	3/30/2018
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Jeremy Russell, BSE
Laboratory License Number AZ0462

4/10/2018
Date

Arizona Department of Environmental Quality
Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
 Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

March 27, 2018 9:45 (24 hour clock) _____
 Sample Date Sample Time Owner/Contact Person

Owner/Contact Fax Number _____ Owner/Contact Phone Number _____

Sample Collection Point
 EPDS # _____

Compliance Sample Type:

- Reduced Monitoring Date Q1 collected: _____
- Quarterly Date Q2 collected: _____
- Composite of four quarterly samples Date Q3 collected: _____
- Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****
 >>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	4/4/2018	4.8 ± 1.3	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	3/30/2018	< 0.6	
GammaRay HPGE		1 pCi/L	Radium 226	4020	3/30/2018	< 0.5	
GammaRay HPGE		1 pCi/L	Radium 228	4030	3/30/2018	< 0.6	

*****LABORATORY INFORMATION*****
 >>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60127
 Lab ID Number: AZ0462
 Lab Name: Radiation Safety Engineering, Inc.
 Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459
 Comments: 18C0641-01
 Authorized Signature: _____
 Date Public Water System Notified: _____

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18C0641

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone : (480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18C0641-01 Drinking Water Sampled:03/27/2018 09:45			
Radiochemistry, Radium 226/228	04/26/2018 09:45		
Radiochemistry, Gross Alpha	09/23/2018 09:45		
Containers Supplied:			# 600127
Sample ID: 18C0641-02 Drinking Water Sampled:03/27/2018 11:25			
Radiochemistry, Radium 226/228	04/26/2018 11:25		Dissolved
Radiochemistry, Gross Alpha	09/23/2018 11:25		Dissolved
Containers Supplied:			# 600128

600127 3/27/18
OK

~~Released By~~ 3/28/18 16:00 UPS 3/28/18 16:00 Date Date

Released By Date Received By Date



May 18, 2018

Johnny Pappas
Arizona Minerals Inc.
3845 North Business Center Drive, Suite 115
Tucson, AZ 85705

TEL (802) 235-5563
FAX

Work Order No.: 18D0656
Order Name: Surface Water

RE: Surface Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 04/26/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Max DiSante
Laboratory Director

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

Order: Surface Water

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18D0656-01	POC#2-42618	Ground Water	04/26/2018 0920

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

E4 Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Lab Sample ID: 18D0656-01

Client Sample ID: POC#2-42618
Collection Date/Time: 04/26/2018 0920
Matrix: Ground Water
Order Name: Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	04/27/2018 0844	04/27/2018 1103	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	2.0		0.30		mg/L	1	05/01/2018 1015	05/04/2018 1219	MH
Manganese	27		0.20		mg/L	10	05/01/2018 1015	05/09/2018 1006	MH
Zinc	6.2		0.40		mg/L	10	05/01/2018 1015	05/09/2018 1006	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Arsenic	0.0094		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Barium	0.020		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Beryllium	0.00053		0.00025		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Cadmium	0.0064		0.00025		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Chromium	0.00082		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Copper	0.00090		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Lead	0.0026		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Nickel	0.070		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Selenium	0.0017	0.00025	0.0025	E4	mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Thallium	ND		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND		0.0010		mg/L	1	05/09/2018 0930	05/09/2018 1346	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.85		0.50		mg/L	1	04/27/2018 0844	04/27/2018 1103	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	04/27/2018 0844	04/27/2018 1103	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	04/27/2018 0844	04/27/2018 1103	AP
Sulfate	2200		1000		mg/L	200	04/27/2018 0844	04/27/2018 1622	AP
Cyanide-E335.4									
Cyanide	ND		0.10		mg/L	1	05/07/2018 0845	05/08/2018 1600	AP
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	180		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Lab Sample ID: 18D0656-01

Client Sample ID: POC#2-42618
Collection Date/Time: 04/26/2018 0920
Matrix: Ground Water
Order Name: Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ
Alkalinity, Total (As CaCO3)	180		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	04/30/2018 0820	05/02/2018 0830	EJ

Client: Arizona Minerals Inc.
 Project: Surface Water
 Work Order: 18D0656
 Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805051 - E 200.7 (4.4)										
Blank (1805051-BLK1) Prepared & Analyzed: 05/04/2018										
Iron	ND	0.30	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1805051-BS1) Prepared & Analyzed: 05/04/2018										
Iron	1.0	0.30	mg/L	1.000		104	85-115			
Manganese	0.54	0.020	mg/L	0.5000		108	85-115			
Zinc	0.54	0.040	mg/L	0.5000		108	85-115			
LCS Dup (1805051-BSD1) Prepared & Analyzed: 05/04/2018										
Iron	1.0	0.30	mg/L	1.000		105	85-115	0.5	20	
Manganese	0.53	0.020	mg/L	0.5000		106	85-115	2	20	
Zinc	0.53	0.040	mg/L	0.5000		106	85-115	2	20	
Matrix Spike (1805051-MS1) Source: 18D0619-01 Prepared & Analyzed: 05/04/2018										
Iron	1.1	0.30	mg/L	1.000	0.028	105	70-130			
Manganese	0.52	0.020	mg/L	0.5000	ND	105	70-130			
Zinc	0.53	0.040	mg/L	0.5000	0.012	104	70-130			
Matrix Spike (1805051-MS2) Source: 18E0021-01 Prepared & Analyzed: 05/04/2018										
Iron	1.0	0.30	mg/L	1.000	0.0060	101	70-130			
Manganese	0.51	0.020	mg/L	0.5000	ND	102	70-130			
Zinc	0.51	0.040	mg/L	0.5000	ND	102	70-130			
Batch 1805069 - E 200.8 (5.4)										
Blank (1805069-BLK1) Prepared & Analyzed: 05/07/2018										
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805069 - E 200.8 (5.4)										
LCS (1805069-BS1)				Prepared & Analyzed: 05/07/2018						
Antimony	0.048	0.00050	mg/L	0.05000		96	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Barium	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.049	0.00025	mg/L	0.05000		97	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115			
Selenium	0.051	0.0025	mg/L	0.05000		103	85-115			
Thallium	0.050	0.00050	mg/L	0.05000		101	85-115			
LCS Dup (1805069-BSD1)										
				Prepared & Analyzed: 05/07/2018						
Antimony	0.048	0.00050	mg/L	0.05000		96	85-115	0.7	20	
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	0.8	20	
Barium	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Beryllium	0.049	0.00025	mg/L	0.05000		97	85-115	0.2	20	
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115	0.2	20	
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115	0.4	20	
Copper	0.052	0.00050	mg/L	0.05000		105	85-115	2	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	0.1	20	
Nickel	0.051	0.00050	mg/L	0.05000		103	85-115	0.8	20	
Selenium	0.052	0.0025	mg/L	0.05000		104	85-115	2	20	
Thallium	0.050	0.00050	mg/L	0.05000		101	85-115	0.06	20	
Matrix Spike (1805069-MS1)										
				Source: 18D0693-01		Prepared & Analyzed: 05/07/2018				
Antimony	0.045	0.00050	mg/L	0.05000	0.00024	90	70-130			
Arsenic	0.056	0.00050	mg/L	0.05000	0.0035	104	70-130			
Barium	0.16	0.00050	mg/L	0.05000	0.12	94	70-130			
Beryllium	0.045	0.00025	mg/L	0.05000	0.000029	90	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	ND	94	70-130			
Chromium	0.049	0.00050	mg/L	0.05000	0.00052	98	70-130			
Copper	0.051	0.00050	mg/L	0.05000	0.0020	98	70-130			
Lead	0.047	0.00050	mg/L	0.05000	0.00016	94	70-130			
Nickel	0.049	0.00050	mg/L	0.05000	0.0018	94	70-130			
Selenium	0.057	0.0025	mg/L	0.05000	ND	114	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.000038	96	70-130			
Batch 1805102 - E 245.1										
Blank (1805102-BLK1)				Prepared & Analyzed: 05/09/2018						
Mercury	ND	0.0010	mg/L							
LCS (1805102-BS1)				Prepared & Analyzed: 05/09/2018						
Mercury	0.0051	0.0010	mg/L	0.005000		103	85-115			
LCS Dup (1805102-BSD1)				Prepared & Analyzed: 05/09/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		99	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805102 - E 245.1										
Matrix Spike (1805102-MS1)		Source: 18E0047-03		Prepared & Analyzed: 05/09/2018						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115			
Matrix Spike Dup (1805102-MSD1)		Source: 18E0047-03		Prepared & Analyzed: 05/09/2018						
Mercury	0.0050	0.0010	mg/L	0.005000	ND	101	85-115	2	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1804289 - SM2540 C										
Duplicate (1804289-DUP1)		Source: 18D0628-13			Prepared: 04/30/2018 Analyzed: 05/03/2018					
Total Dissolved Solids (Residue, Filterable)	370	20	mg/L		370			0	5	
Duplicate (1804289-DUP2)		Source: 18D0628-14			Prepared: 04/30/2018 Analyzed: 05/03/2018					
Total Dissolved Solids (Residue, Filterable)	340	20	mg/L		340			0	5	
Batch 1805027 - SM2320B										
LCS (1805027-BS1)				Prepared & Analyzed: 05/03/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110			
LCS Dup (1805027-BSD1)				Prepared & Analyzed: 05/03/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110	0	10	
Matrix Spike (1805027-MS1)		Source: 18D0606-02			Prepared & Analyzed: 05/03/2018					
Alkalinity, Total (As CaCO3)	370	2.0	mg/L	250.0	130	96	85-115			
Matrix Spike Dup (1805027-MSD1)		Source: 18D0606-02			Prepared & Analyzed: 05/03/2018					
Alkalinity, Total (As CaCO3)	370	2.0	mg/L	250.0	130	95	85-115	0.5	10	
Batch 1805085 - E335.4										
Blank (1805085-BLK1)				Prepared: 05/07/2018 Analyzed: 05/08/2018						
Cyanide	ND	0.10	mg/L							
LCS (1805085-BS1)				Prepared: 05/07/2018 Analyzed: 05/08/2018						
Cyanide	1.9	0.10	mg/L	2.000		93	90-110			
LCS Dup (1805085-BSD1)				Prepared: 05/07/2018 Analyzed: 05/08/2018						
Cyanide	1.8	0.10	mg/L	2.000		92	90-110	0.9	20	
Matrix Spike (1805085-MS1)		Source: 18E0099-01			Prepared: 05/07/2018 Analyzed: 05/08/2018					
Cyanide	2.0	0.10	mg/L	2.000	ND	99	90-110			
Matrix Spike Dup (1805085-MSD1)		Source: 18E0099-01			Prepared: 05/07/2018 Analyzed: 05/08/2018					
Cyanide	2.1	0.10	mg/L	2.000	ND	105	90-110	7	20	

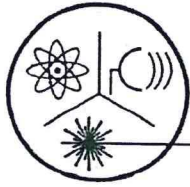
Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1804274 - E300.0 (2.1)										
Blank (1804274-BLK1)				Prepared & Analyzed: 04/27/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1804274-BS1)				Prepared & Analyzed: 04/27/2018						
Fluoride	2.1	0.50	mg/L	2.000		105	90-110			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		95	90-110			
Sulfate	12	5.0	mg/L	12.50		97	90-110			
LCS Dup (1804274-BSD1)				Prepared & Analyzed: 04/27/2018						
Fluoride	2.1	0.50	mg/L	2.000		106	90-110	0.7	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110	0.08	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		95	90-110	0.04	10	
Sulfate	12	5.0	mg/L	12.50		97	90-110	0.07	10	
Matrix Spike (1804274-MS1)				Source: 18D0678-01		Prepared & Analyzed: 04/27/2018				
Fluoride	2.4	0.50	mg/L	2.000	0.31	105	80-120			
Nitrogen, Nitrate (As N)	5.6	0.50	mg/L	5.000	0.88	94	80-120			
Nitrogen, Nitrite (As N)	2.0	0.10	mg/L	2.500	ND	80	80-120			
Matrix Spike (1804274-MS2)				Source: 18D0678-01RE1		Prepared & Analyzed: 04/27/2018				
Sulfate	26		mg/L	12.50	15	90	80-120			
Matrix Spike Dup (1804274-MSD1)				Source: 18D0678-01		Prepared & Analyzed: 04/27/2018				
Fluoride	2.4	0.50	mg/L	2.000	0.31	107	80-120	2	10	
Nitrogen, Nitrate (As N)	5.6	0.50	mg/L	5.000	0.88	95	80-120	1	10	
Nitrogen, Nitrite (As N)	2.0	0.10	mg/L	2.500	ND	81	80-120	1	10	
Matrix Spike Dup (1804274-MSD2)				Source: 18D0678-01RE1		Prepared & Analyzed: 04/27/2018				
Sulfate	26		mg/L	12.50	15	91	80-120	0.2	10	

LABORATORY			
Analyte – ICP/MS	Total	Dissolved	Other
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
 Website: www.radsafe.com

(480) 897-9459
 FAX (480) 892-5446

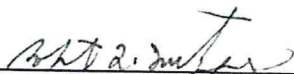
Radiochemical Activity in Water (pCi/L)

Turner Laboratories
 2445 N. Coyote Drive, Ste. 104
 Tucson, AZ 85745

Sampling Date: April 26, 2018
 Sample Received: May 01, 2018
 Analysis Completed: May 17, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18D0656-01	3.1 ± 1.2	0.6 ± 0.2	< 0.6	0.6 ± 0.2

Date of Analysis	5/15/2018	5/4/2018	5/4/2018	5/4/2018
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 Robert L. Metzger, Ph.D., C.H.P. 5/17/2018 Date
 Laboratory License Number AZ0462

Arizona Department of Environmental Quality
Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
 Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 26, 2018 9:20 (24 hour clock) _____

Sample Date Sample Time Owner/Contact Person _____

Owner/Contact Fax Number _____ Owner/Contact Phone Number _____

Sample Collection Point
 EPDS # _____

Compliance Sample Type:

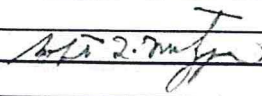
- Reduced Monitoring Date Q1 collected: _____
- Quarterly Date Q2 collected: _____
- Composite of four quarterly samples Date Q3 collected: _____
- Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****
 >>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	5/15/2018	3.1 ± 1.2	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/4/2018	0.6 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/4/2018	0.6 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/4/2018	< 0.6	

*****LABORATORY INFORMATION*****
 >>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60313
 Lab ID Number: AZ0462
 Lab Name: Radiation Safety Engineering, Inc.
 Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459
 Comments: 18D0656-01
 Authorized Signature: 
 Date Public Water System Notified: _____

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18D0656

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone : (480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis Expires Laboratory ID Comments

Sample ID: 18D0656-02 Drinking Water Sampled: 04/26/2018 09:20

Radiochemistry, Radium 226/228 05/26/2018 09:20

Containers Supplied:

#60313

Released By

4/30/18

Date

16:00

Received By

UPS

4/30/18

Date

16:00

Released By

Date

Received By

Scarlet D Carter

Date

5/1/18



June 15, 2018

Johnny Pappas
Arizona Minerals Inc.
3845 North Business Center Drive, Suite 115
Tucson, AZ 85705

TEL (802) 235-5563
FAX

Work Order No.: 18E0634
Order Name: Surface Water

RE: Surface Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 05/29/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Max DiSante
Laboratory Director

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

Order: Surface Water

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18E0634-01	POC#2-052918	Ground Water	05/29/2018 1346

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

- D5 Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
- E4 Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
- M3 The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
- M7 Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

- ND Not Detected at or above the PQL
- PQL Practical Quantitation Limit
- DF Dilution Factor

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Lab Sample ID: 18E0634-01

Client Sample ID: POC#2-052918
Collection Date/Time: 05/29/2018 1346
Matrix: Ground Water
Order Name: Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	2200		62		mg/L	5	05/31/2018 0950	05/31/2018 1413	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	05/29/2018 1635	05/29/2018 2107	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	550		20	M3	mg/L	5	05/31/2018 0950	05/31/2018 1413	MH
Iron	1.4		0.30		mg/L	1	05/31/2018 0950	05/31/2018 1258	MH
Magnesium	210		3.0	M3	mg/L	1	05/31/2018 0950	05/31/2018 1258	MH
Manganese	25		0.10	M3	mg/L	5	05/31/2018 0950	05/31/2018 1413	MH
Zinc	5.9		0.20	M3	mg/L	5	05/31/2018 0950	05/31/2018 1413	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Arsenic	0.0087		0.00050		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Barium	0.018		0.00050		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Beryllium	ND		0.0013	D5	mg/L	5	05/31/2018 0950	06/11/2018 1948	MH
Cadmium	0.0058		0.00025		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Chromium	ND		0.0010	D5	mg/L	2	05/31/2018 0950	06/11/2018 1242	MH
Copper	ND		0.00050		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Lead	ND		0.0010	D5	mg/L	2	05/31/2018 0950	06/11/2018 1242	MH
Nickel	0.064		0.0010		mg/L	2	05/31/2018 0950	06/11/2018 1242	MH
Selenium	0.0018	0.00025	0.0025	E4	mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Thallium	ND		0.0010	D5	mg/L	2	05/31/2018 0950	06/11/2018 1242	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND		0.0010		mg/L	1	06/05/2018 1050	06/05/2018 1535	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	05/29/2018 1635	05/29/2018 2107	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	05/29/2018 1635	05/29/2018 2107	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	05/29/2018 1635	05/29/2018 2107	AP
Sulfate	2200		500		mg/L	100	06/01/2018 1050	06/02/2018 0227	AP

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Lab Sample ID: 18E0634-01

Client Sample ID: POC#2-052918
Collection Date/Time: 05/29/2018 1346
Matrix: Ground Water
Order Name: Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Cyanide	ND		0.10		mg/L	1	06/01/2018 0845	06/04/2018 1515	AP
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	190		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Alkalinity, Total (As CaCO3)	190		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	05/30/2018 0845	06/01/2018 0830	EJ

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805338 - E 200.7 (4.4)										
Blank (1805338-BLK1) Prepared & Analyzed: 05/31/2018										
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1805338-BS1) Prepared & Analyzed: 05/31/2018										
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Iron	0.94	0.30	mg/L	1.000		94	85-115			
Magnesium	9.6	3.0	mg/L	10.00		96	85-115			
Manganese	0.50	0.020	mg/L	0.5000		99	85-115			
Zinc	0.49	0.040	mg/L	0.5000		99	85-115			
LCS Dup (1805338-BSD1) Prepared & Analyzed: 05/31/2018										
Calcium	9.6	4.0	mg/L	10.00		96	85-115	0.05	20	
Iron	0.95	0.30	mg/L	1.000		95	85-115	1	20	
Magnesium	9.6	3.0	mg/L	10.00		96	85-115	0.2	20	
Manganese	0.50	0.020	mg/L	0.5000		100	85-115	0.7	20	
Zinc	0.50	0.040	mg/L	0.5000		99	85-115	0.9	20	
Matrix Spike (1805338-MS1) Source: 18E0634-01 Prepared & Analyzed: 05/31/2018										
Calcium	540	20	mg/L	10.00	550	NR	70-130			M3
Iron	2.7	0.30	mg/L	1.000	1.4	127	70-130			
Magnesium	260	3.0	mg/L	10.00	210	512	70-130			M3
Manganese	25	0.10	mg/L	0.5000	25	NR	70-130			M3
Zinc	6.1	0.20	mg/L	0.5000	5.9	39	70-130			M3
Batch 1806041 - E 245.1										
Blank (1806041-BLK1) Prepared & Analyzed: 06/05/2018										
Mercury	ND	0.0010	mg/L							
LCS (1806041-BS1) Prepared & Analyzed: 06/05/2018										
Mercury	0.0054	0.0010	mg/L	0.005000		108	85-115			
LCS Dup (1806041-BSD1) Prepared & Analyzed: 06/05/2018										
Mercury	0.0054	0.0010	mg/L	0.005000		109	85-115	0.9	20	
Matrix Spike (1806041-MS1) Source: 18E0641-01 Prepared & Analyzed: 06/05/2018										
Mercury	0.0054	0.0010	mg/L	0.005000	ND	108	85-115			
Matrix Spike Dup (1806041-MSD1) Source: 18E0641-01 Prepared & Analyzed: 06/05/2018										
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115	1	20	
Batch 1806064 - E 200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806064 - E 200.8 (5.4)										
Blank (1806064-BLK1) Prepared & Analyzed: 06/07/2018										
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1806064-BS1) Prepared & Analyzed: 06/07/2018										
Antimony	0.049	0.00050	mg/L	0.05000		99	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Barium	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.056	0.00025	mg/L	0.05000		112	85-115			
Cadmium	0.052	0.00025	mg/L	0.05000		103	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		101	85-115			
Copper	0.050	0.00050	mg/L	0.05000		99	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.049	0.00050	mg/L	0.05000		99	85-115			
Selenium	0.050	0.0025	mg/L	0.05000		101	85-115			
Thallium	0.053	0.00050	mg/L	0.05000		106	85-115			
LCS Dup (1806064-BSD1) Prepared & Analyzed: 06/07/2018										
Antimony	0.050	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.1	20	
Barium	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Beryllium	0.056	0.00025	mg/L	0.05000		112	85-115	0.5	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	2	20	
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	0.1	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	0.1	20	
Nickel	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Selenium	0.051	0.0025	mg/L	0.05000		101	85-115	0.5	20	
Thallium	0.053	0.00050	mg/L	0.05000		106	85-115	0.04	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806064 - E 200.8 (5.4)										
Matrix Spike (1806064-MS1)	Source: 18E0684-01			Prepared & Analyzed: 06/07/2018						
Antimony	0.047	0.00050	mg/L	0.05000	0.00041	94	70-130			
Arsenic	0.054	0.00050	mg/L	0.05000	0.0034	101	70-130			
Barium	0.14	0.00050	mg/L	0.05000	0.089	95	70-130			
Beryllium	0.040	0.00025	mg/L	0.05000	0.000028	80	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	ND	97	70-130			
Chromium	0.056	0.00050	mg/L	0.05000	0.00068	110	70-130			
Copper	0.054	0.00050	mg/L	0.05000	0.0050	97	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.0047	90	70-130			
Nickel	0.060	0.00050	mg/L	0.05000	0.0037	112	70-130			
Selenium	0.055	0.0025	mg/L	0.05000	0.00052	108	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.000032	97	70-130			

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805315 - SM2540 C										
Duplicate (1805315-DUP1)		Source: 18E0660-01			Prepared: 05/30/2018 Analyzed: 05/31/2018					
Total Dissolved Solids (Residue, Filterable)	370	20	mg/L		370			1	5	
Duplicate (1805315-DUP2)		Source: 18E0659-01			Prepared: 05/30/2018 Analyzed: 06/01/2018					
Total Dissolved Solids (Residue, Filterable)	1500	20	mg/L		1500			0.4	5	
Batch 1805331 - SM2320B										
LCS (1805331-BS1)				Prepared & Analyzed: 05/30/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110			
LCS Dup (1805331-BSD1)				Prepared & Analyzed: 05/30/2018						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		98	90-110	2	10	
Matrix Spike (1805331-MS1)		Source: 18E0631-01			Prepared & Analyzed: 05/30/2018					
Alkalinity, Total (As CaCO3)	340	2.0	mg/L	250.0	100	95	85-115			
Matrix Spike Dup (1805331-MSD1)		Source: 18E0631-01			Prepared & Analyzed: 05/30/2018					
Alkalinity, Total (As CaCO3)	350	2.0	mg/L	250.0	100	98	85-115	2	10	
Batch 1806021 - E335.4										
Blank (1806021-BLK1)				Prepared: 06/01/2018 Analyzed: 06/04/2018						
Cyanide	ND	0.10	mg/L							
LCS (1806021-BS1)				Prepared: 06/01/2018 Analyzed: 06/04/2018						
Cyanide	1.9	0.10	mg/L	2.000		93	90-110			
LCS Dup (1806021-BSD1)				Prepared: 06/01/2018 Analyzed: 06/04/2018						
Cyanide	1.9	0.10	mg/L	2.000		94	90-110	0.9	20	
Matrix Spike (1806021-MS1)		Source: 18E0634-01			Prepared: 06/01/2018 Analyzed: 06/04/2018					
Cyanide	1.8	0.10	mg/L	2.000	ND	90	90-110			
Matrix Spike Dup (1806021-MSD1)		Source: 18E0634-01			Prepared: 06/01/2018 Analyzed: 06/04/2018					
Cyanide	1.9	0.10	mg/L	2.000	ND	96	90-110	6	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805307 - E300.0 (2.1)										
Blank (1805307-BLK1) Prepared & Analyzed: 05/29/2018										
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1805307-BS1) Prepared & Analyzed: 05/29/2018										
Fluoride	2.1	0.50	mg/L	2.000		104	90-110			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		100	90-110			
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		102	90-110			
Sulfate	12	5.0	mg/L	12.50		99	90-110			
LCS Dup (1805307-BSD1) Prepared & Analyzed: 05/29/2018										
Fluoride	2.1	0.50	mg/L	2.000		105	90-110	1	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		100	90-110	0.3	10	
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		102	90-110	0	10	
Sulfate	12	5.0	mg/L	12.50		99	90-110	0.06	10	
Matrix Spike (1805307-MS1) Source: 18E0642-01 Prepared: 05/29/2018 Analyzed: 05/30/2018										
Fluoride	2.6	0.50	mg/L	2.000	0.48	107	80-120			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.15	98	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	96	80-120			
Matrix Spike (1805307-MS2) Source: 18E0660-01 Prepared: 05/29/2018 Analyzed: 05/30/2018										
Fluoride	2.7	0.50	mg/L	2.000	0.57	105	80-120			
Nitrogen, Nitrate (As N)	6.1	0.50	mg/L	5.000	1.1	99	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	91	80-120			
Matrix Spike (1805307-MS3) Source: 18E0634-01 Prepared & Analyzed: 06/06/2018										
Fluoride	2.2	0.50	mg/L	2.000	0.19	100	80-120			
Nitrogen, Nitrate (As N)	4.7	0.50	mg/L	5.000	0.090	93	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	94	80-120			
Matrix Spike (1805307-MS5) Source: 18E0666-01 Prepared: 06/07/2018 Analyzed: 06/08/2018										
Sulfate	37	5.0	mg/L	12.50	28	74	80-120			M7
Matrix Spike Dup (1805307-MSD1) Source: 18E0642-01 Prepared: 05/29/2018 Analyzed: 05/30/2018										
Fluoride	2.6	0.50	mg/L	2.000	0.48	107	80-120	0.6	10	
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000	0.15	98	80-120	0.4	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	97	80-120	0.5	10	
Matrix Spike Dup (1805307-MSD2) Source: 18E0660-01 Prepared: 05/29/2018 Analyzed: 05/30/2018										
Fluoride	2.7	0.50	mg/L	2.000	0.57	106	80-120	1	10	
Nitrogen, Nitrate (As N)	6.2	0.50	mg/L	5.000	1.1	101	80-120	1	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	93	80-120	2	10	
Matrix Spike Dup (1805307-MSD3) Source: 18E0634-01 Prepared & Analyzed: 06/06/2018										
Fluoride	2.2	0.50	mg/L	2.000	0.19	100	80-120	0.09	10	
Nitrogen, Nitrate (As N)	4.7	0.50	mg/L	5.000	0.090	93	80-120	0.2	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	94	80-120	0.3	10	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch 1805307 - E300.0 (2.1)

Matrix Spike Dup (1805307-MSD5) Source: 18E0666-01 Prepared: 06/07/2018 Analyzed: 06/08/2018

Sulfate	37	5.0	mg/L	12.50	28	74	80-120	0.1	10	M7
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18E0634 DATE 5-29-18 PAGE 18 OF 18

PROJECT NAME Surface water # _____
 CONTACT NAME Johnny Pappas
 COMPANY NAME Arizona Mining
 ADDRESS 3845 N Business Center Drive Ste 115
 ZIP 85705 PHONE 520-235-5881 EMAIL _____
 SAMPLER'S SIGNATURE [Signature]

NUMBER OF CONTAINERS		CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX	
Base Neutrals <input type="checkbox"/>	625/8270	Acids <input type="checkbox"/>	
Volatiles Organics <input type="checkbox"/>	624	TCP Analysis <input type="checkbox"/>	
TTHMS <input type="checkbox"/>	524.2	Semi-VOA <input type="checkbox"/>	
HAAS <input type="checkbox"/>	8260	Post. <input type="checkbox"/>	
Chloride <input type="checkbox"/>		Metals <input type="checkbox"/>	
NO ₂ <input type="checkbox"/>		Total <input type="checkbox"/>	
NO ₃ <input type="checkbox"/>		TCRA8 <input type="checkbox"/>	
TKN <input type="checkbox"/>		Disolved <input type="checkbox"/>	
1664 <input type="checkbox"/>		TCRP <input type="checkbox"/>	
TPH <input type="checkbox"/>		Metals <input type="checkbox"/>	
Oil & Grease <input type="checkbox"/>		VOA <input type="checkbox"/>	
1664 <input type="checkbox"/>		Semi-VOA <input type="checkbox"/>	
Resistivity <input type="checkbox"/>		Post. <input type="checkbox"/>	
Sulfate <input type="checkbox"/>		Metals <input type="checkbox"/>	
NO ₂ <input type="checkbox"/>		Total <input type="checkbox"/>	
NO ₃ <input type="checkbox"/>		TCRA8 <input type="checkbox"/>	
TKN <input type="checkbox"/>		Disolved <input type="checkbox"/>	
1664 <input type="checkbox"/>		TCRP <input type="checkbox"/>	
TPH <input type="checkbox"/>		Metals <input type="checkbox"/>	
Oil & Grease <input type="checkbox"/>		VOA <input type="checkbox"/>	
1664 <input type="checkbox"/>		Semi-VOA <input type="checkbox"/>	
Resistivity <input type="checkbox"/>		Post. <input type="checkbox"/>	
Sulfate <input type="checkbox"/>		Metals <input type="checkbox"/>	
NO ₂ <input type="checkbox"/>		Total <input type="checkbox"/>	
NO ₃ <input type="checkbox"/>		TCRA8 <input type="checkbox"/>	
TKN <input type="checkbox"/>		Disolved <input type="checkbox"/>	
1664 <input type="checkbox"/>		TCRP <input type="checkbox"/>	
TPH <input type="checkbox"/>		Metals <input type="checkbox"/>	
Oil & Grease <input type="checkbox"/>		VOA <input type="checkbox"/>	
1664 <input type="checkbox"/>		Semi-VOA <input type="checkbox"/>	
Resistivity <input type="checkbox"/>		Post. <input type="checkbox"/>	
Sulfate <input type="checkbox"/>		Metals <input type="checkbox"/>	
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TKN <input type="checkbox"/>		Disolved <input type="checkbox"/>	
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1664 <input type="checkbox"/>		Semi-VOA <input type="checkbox"/>	
Resistivity <input type="checkbox"/>		Post. <input type="checkbox"/>	
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TKN <input type="checkbox"/>		Disolved <input type="checkbox"/>	
1664 <input type="checkbox"/>		TCRP <input type="checkbox"/>	

POC #2 – MW3 Monthly

LABORATORY			
Analyte – ICP/MS	Total	Dissolved	Other
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		
Hardness			X

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water
Turbidity

MONITORING WELL PUMPED SAMPLE COLLECTION FORM

Project Name: AMI	Date: <u>5/24/13</u>	Recorded By:	Checked By:
Well Name: POC#2	Project #:	Carbon Canister: <u>NO</u>	Equipment Decon: <u>YES</u> (alcohex)
Water Quality Meter Type/ID #: OAKTON	Water Level Indicator Type/ID #: WATERLINE 500.01	Initial Depth to Water (ft) [c]: <u>20.5</u>	
Water Quality Meter Calibrated Today? Y / N	Sampling Equipment:	Well Volume (gal) [d-c] x bj: <u>9.52</u>	
Casing I.D. (in) [aj]: <u>2</u>	Unit Casing Volume (gal / lin ft) [b]: <u>0.16</u>	Ground Condition of Well: <u>GOOD</u>	
Total Well Depth (ft) [di]: <u>86</u>	Water Column Thickness (ft) [d-c]: <u>65.5</u>		
Water Level Measuring Point (ft, bis): "+" = below land surface "*" = above land surface <u>+2</u>	Key Number, if necessary to access well: <u>NA</u>		
Remarks:			

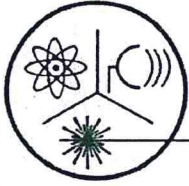
CASING INFO	Unit Casing Volume (gal/lin ft) [bj]:		Casing I.D. (in) [aj]:		Initial Depth to Water (ft) [c]:		Well Volume (gal) [d-c] x bj:		Ground Condition of Well:				
	Unit Casing Volume (gal/lin ft) [bj]:	0.09	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0	10.0

Sample ID #(s)/Time(s)	No. of Containers/Volume/Type		Preserv.	Filtered (Y/N)	Analysis		Pump Type or Baller	Discharge
	Subcontainer	NP			Lab Filtered	Radiological		
Sample ID = <u>POC#2-052918</u>	500ml	NP	NP	N		Major Cations/Anions wet chem, D Metals	Electric submersible pump	Water Discharged
Sample Time = <u>10:25 a.m.</u>	250-ml	HNO3		N		T Metals		Water Discharged
Depth of Pump Inlet = <u>60</u> feet btoe	500-ml	NaOH		N		Cyanide		Directly Onto Site
<u>POC #2 052918</u>								

Time (24 hr)	Water Level (ft bmp)	Odor (Y/N)	Volume Removed (gal)	Pumping Rate (gpm)	Flow Meter Read (gal)	Temp (C)	Conductivity (uS/cm)	pH	Turbidity (NTU)	Color	Remarks (clarity, etc.)
<u>09:56</u>	<u>20.5</u>	<u>N</u>	<u>0</u>	<u>2.5</u>		<u>23.1</u>	<u>2841</u>	<u>6.52</u>	<u>23</u>	<u>clear</u>	Pump on/
<u>10:02</u>	<u>34.1</u>	<u>N</u>	<u>11</u>	<u>2.5</u>		<u>21.3</u>	<u>2850</u>	<u>6.65</u>	<u>22.3</u>	<u>clear</u>	
<u>10:08</u>	<u>36.7</u>	<u>N</u>	<u>20</u>	<u>2.5</u>		<u>20.9</u>	<u>3049</u>	<u>6.64</u>	<u>16.3</u>	<u>clear</u>	
<u>10:15</u>	<u>37.8</u>	<u>N</u>	<u>32</u>	<u>2.5</u>		<u>21.6</u>	<u>3093</u>	<u>6.66</u>	<u>10.1</u>	<u>clear</u>	
<u>10:20</u>	<u>38.3</u>	<u>N</u>	<u>39</u>	<u>2.5</u>		<u>19.8</u>	<u>2991</u>	<u>6.64</u>	<u>7.38</u>	<u>clear</u>	
<u>10:26</u>	<u>29.3</u>	<u>N</u>	<u>44</u>								pump off / after pump is off, record: water level, volume remove, and flow meter reading

Stabilization: +/- 10%, +/- 0.2 pH, +/- 10% conductivity, for 2 consecutive purge volumes

PLEASE COMPLETE THE FORM FOR ALL FIELDS



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: May 29, 2018
Sample Received: June 01, 2018
Analysis Completed: June 14, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18E0634-01	3.7 ± 1.1	< 0.4	< 0.6	< 0.6

Date of Analysis	6/4/2018	6/6/2018	6/6/2018	6/6/2018
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6/14/2018

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality
Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____

PWS Name: _____

May 29, 2018 13:46 (24 hour clock)

Sample Date Sample Time

Owner/Contact Person _____

Owner/Contact Fax Number _____

Owner/Contact Phone Number _____

Sample Collection Point

EPDS # _____

Compliance Sample Type:

Reduced Monitoring

Date Q1 collected: _____

Quarterly

Date Q2 collected: _____

Composite of four quarterly samples

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Combined Uranium must be reported in micrograms per liter

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	6/4/2018	3.7 ± 1.1	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	6/6/2018	< 0.6	
GammaRay HPGE		1 pCi/L	Radium 226	4020	6/6/2018	< 0.4	
GammaRay HPGE		1 pCi/L	Radium 228	4030	6/6/2018	< 0.6	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60455 _____

Lab ID Number: AZ0462 _____

Lab Name: Radiation Safety Engineering, Inc. _____

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 18E0634-01 _____

Authorized Signature: *Robert L. Metzger* _____

Date Public Water System Notified: _____

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18E0634

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone : (480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18E0634-01 Drinking Water Sampled:05/29/2018 13:46			
Radiochemistry, Radium 226/228	06/28/2018 13:46		
Radiochemistry, Gross Alpha	11/25/2018 13:46		60455
<i>Containers Supplied:</i>			

~~Released By~~ _____ Date 5-30-18 16:00 Received By UPS Date 5-30-18 16:00
Released By _____ Date _____ Received By Scarlet D Carter Date 6/1/18



July 11, 2018

Johnny Pappas
Arizona Minerals Inc.
3845 North Business Center Drive, Suite 115
Tucson, AZ 85705

TEL (802) 235-5563
FAX

Work Order No.: 18F0594

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 06/21/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Business Development

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18F0594-01	POC#2	Ground Water	06/21/2018 1211

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

- D5 Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
 - E4 Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
 - E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
 - M3 The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
- All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.
- ND Not Detected at or above the PQL
 - PQL Practical Quantitation Limit
 - DF Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Lab Sample ID: 18F0594-01

Client Sample ID: POC#2
Collection Date/Time: 06/21/2018 1211
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	06/21/2018 1648	06/21/2018 1648	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	1.6		0.30		mg/L	1	06/22/2018 1000	06/22/2018 1219	MH
Manganese	28		0.10		mg/L	5	06/22/2018 1000	06/22/2018 1255	MH
Zinc	6.9		0.20		mg/L	5	06/22/2018 1000	06/22/2018 1255	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.0010	D5	mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Arsenic	0.0078		0.0010		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Barium	0.018		0.0010		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Beryllium	0.00061		0.00050		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Cadmium	0.0080		0.00050		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Chromium	ND		0.0010	D5	mg/L	2	06/22/2018 1000	06/28/2018 1344	MH
Copper	0.0020		0.0010		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Lead	0.0036		0.0010		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Nickel	0.071		0.0010		mg/L	2	06/22/2018 1000	06/28/2018 1344	MH
Selenium	0.0020		0.0050	D5, E4	mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Thallium	ND		0.0010	D5	mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	06/25/2018 1050	06/25/2018 1725	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.80		0.50		mg/L	1	06/21/2018 1648	06/21/2018 1648	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	06/21/2018 1648	06/21/2018 1648	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	06/21/2018 1648	06/21/2018 1648	AP
Sulfate	2100		500		mg/L	100	06/21/2018 1329	06/22/2018 1328	AP
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	180		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Lab Sample ID: 18F0594-01

Client Sample ID: POC#2
Collection Date/Time: 06/21/2018 1211
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ
Alkalinity, Total (As CaCO3)	180		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	06/28/2018 0830	06/29/2018 1345	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	06/22/2018 0845	06/22/2018 1525	AP

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1806235 - E 200.7 (4.4)										
Blank (1806235-BLK1) Prepared & Analyzed: 06/22/2018										
Iron	ND	0.30	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1806235-BS1) Prepared & Analyzed: 06/22/2018										
Iron	1.0	0.30	mg/L	1.000		101	85-115			
Manganese	0.53	0.020	mg/L	0.5000		106	85-115			
Zinc	0.52	0.040	mg/L	0.5000		104	85-115			
LCS Dup (1806235-BSD1) Prepared & Analyzed: 06/22/2018										
Iron	0.98	0.30	mg/L	1.000		98	85-115	3	20	
Manganese	0.52	0.020	mg/L	0.5000		103	85-115	3	20	
Zinc	0.51	0.040	mg/L	0.5000		102	85-115	2	20	
Matrix Spike (1806235-MS1) Source: 18F0566-01 Prepared & Analyzed: 06/22/2018										
Iron	1.0	0.30	mg/L	1.000	0.034	96	70-130			
Manganese	26	0.40	mg/L	0.5000	26	NR	70-130			M3
Zinc	28	0.80	mg/L	0.5000	29	NR	70-130			M3
Batch 1806246 - E 200.8 (5.4)										
Blank (1806246-BLK1) Prepared & Analyzed: 06/25/2018										
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1806246-BS1) Prepared & Analyzed: 06/25/2018										
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Barium	0.050	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115			
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115			
Copper	0.051	0.00050	mg/L	0.05000		102	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115			
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115			
Thallium	0.050	0.00050	mg/L	0.05000		100	85-115			

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806246 - E 200.8 (5.4)										
LCS Dup (1806246-BSD1)				Prepared & Analyzed: 06/25/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115	0.2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	0.04	20	
Barium	0.050	0.00050	mg/L	0.05000		100	85-115	0.4	20	
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115	0.07	20	
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115	0.2	20	
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115	0.2	20	
Copper	0.051	0.00050	mg/L	0.05000		102	85-115	0.6	20	
Lead	0.049	0.00050	mg/L	0.05000		97	85-115	1	20	
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115	0.3	20	
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115	0.5	20	
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115	0.7	20	
Matrix Spike (1806246-MS1)				Source: 18F0412-01		Prepared & Analyzed: 06/25/2018				
Antimony	0.046	0.00050	mg/L	0.05000	0.00026	91	70-130			
Arsenic	0.049	0.00050	mg/L	0.05000	0.0024	93	70-130			
Barium	0.11	0.00050	mg/L	0.05000	0.067	92	70-130			
Beryllium	0.046	0.00025	mg/L	0.05000	0.000047	91	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.000051	94	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.00070	103	70-130			
Copper	0.056	0.00050	mg/L	0.05000	0.011	90	70-130			
Lead	0.069	0.00050	mg/L	0.05000	0.026	87	70-130			
Nickel	0.052	0.00050	mg/L	0.05000	0.0018	100	70-130			
Selenium	0.049	0.0025	mg/L	0.05000	0.00028	97	70-130			
Thallium	0.044	0.00050	mg/L	0.05000	ND	89	70-130			
Batch 1806249 - E 245.1										
Blank (1806249-BLK1)				Prepared & Analyzed: 06/25/2018						
Mercury	ND	0.0010	mg/L							
LCS (1806249-BS1)				Prepared & Analyzed: 06/25/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		101	85-115			
LCS Dup (1806249-BSD1)				Prepared & Analyzed: 06/25/2018						
Mercury	0.0051	0.0010	mg/L	0.005000		101	85-115	0.6	20	
Matrix Spike (1806249-MS1)				Source: 18F0594-01		Prepared & Analyzed: 06/25/2018				
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115			
Matrix Spike Dup (1806249-MSD1)				Source: 18F0594-01		Prepared & Analyzed: 06/25/2018				
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	85-115	0.1	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806256 - SM4500-CN BE										
Blank (1806256-BLK1)				Prepared & Analyzed: 06/22/2018						
Cyanide	ND	0.10	mg/L							
LCS (1806256-BS1)				Prepared & Analyzed: 06/22/2018						
Cyanide	1.9	0.10	mg/L	2.000		96	90-110			
LCS Dup (1806256-BSD1)				Prepared & Analyzed: 06/22/2018						
Cyanide	1.9	0.10	mg/L	2.000		96	90-110	0.4	20	
Matrix Spike (1806256-MS1)				Source: 18F0582-01		Prepared & Analyzed: 06/22/2018				
Cyanide	1.6	0.10	mg/L	2.000	ND	78	70-130			
Matrix Spike Dup (1806256-MSD1)				Source: 18F0582-01		Prepared & Analyzed: 06/22/2018				
Cyanide	1.6	0.10	mg/L	2.000	ND	81	70-130	4	20	
Batch 1806286 - SM2540 C										
Duplicate (1806286-DUP1)				Source: 18F0594-01		Prepared: 06/28/2018 Analyzed: 07/02/2018				
Total Dissolved Solids (Residue, Filterable)	3300	20	mg/L		3300			0.9	5	
Duplicate (1806286-DUP2)				Source: 18F0662-01		Prepared: 06/28/2018 Analyzed: 06/29/2018				
Total Dissolved Solids (Residue, Filterable)	590	20	mg/L		570			2	5	
Batch 1807020 - SM2320B										
LCS (1807020-BS1)				Prepared & Analyzed: 07/02/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110			
LCS Dup (1807020-BSD1)				Prepared & Analyzed: 07/02/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		98	90-110	2	10	
Matrix Spike (1807020-MS1)				Source: 18F0678-01		Prepared & Analyzed: 07/02/2018				
Alkalinity, Total (As CaCO3)	330	2.0	mg/L	250.0	96	94	85-115			
Matrix Spike Dup (1807020-MSD1)				Source: 18F0678-01		Prepared & Analyzed: 07/02/2018				
Alkalinity, Total (As CaCO3)	340	2.0	mg/L	250.0	96	96	85-115	1	10	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806222 - E300.0 (2.1)										
Blank (1806222-BLK1)				Prepared & Analyzed: 06/21/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1806222-BS1)				Prepared & Analyzed: 06/21/2018						
Fluoride	1.9	0.50	mg/L	2.000		95	90-110			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		96	90-110			
Sulfate	12	5.0	mg/L	12.50		97	90-110			
LCS Dup (1806222-BSD1)				Prepared & Analyzed: 06/21/2018						
Fluoride	1.9	0.50	mg/L	2.000		96	90-110	1	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110	0.3	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		97	90-110	0.7	10	
Sulfate	12	5.0	mg/L	12.50		97	90-110	0.4	10	
Matrix Spike (1806222-MS1)		Source: 18F0575-01		Prepared & Analyzed: 06/21/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.25	96	80-120			
Nitrogen, Nitrate (As N)	8.2	0.50	mg/L	5.000	3.3	99	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	91	80-120			
Sulfate	20	5.0	mg/L	12.50	8.1	91	80-120			
Matrix Spike Dup (1806222-MSD1)		Source: 18F0575-01		Prepared & Analyzed: 06/21/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.25	96	80-120	0.3	10	
Nitrogen, Nitrate (As N)	8.2	0.50	mg/L	5.000	3.3	99	80-120	0.1	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	91	80-120	0.1	10	
Sulfate	19	5.0	mg/L	12.50	8.1	90	80-120	0.9	10	

MONITORING WELL PUMPED SAMPLE COLLECTION FORM

LOCATION	Project Name: AMI	LocID:	Date: 6-21-18									
	Well Name: POC#2	Project #: Aquifer Protection permit p-512235	Recorded By: <i>[Signature]</i> Checked By: <i>[Signature]</i>									
EQUIPMENT	Water Quality Meter Type/ID #: YSI pro plus	Water Level Indicator Type/ID #: GeoTech water meter	Carbon Canister: <i>no</i>									
	Water Quality Meter Calibrated Today? <input checked="" type="checkbox"/> / N	Sampling Equipment: Submersible pump	Equipment Decon: (Alconox)									
WELL INFO	Casing I.D. (in) [a]: 2	Unit Casing Volume (gal / lin ft) [b]: 0.16	Initial Depth to Water (ft) [c]: 14.9									
	Total Well Depth (ft) [d]: 86	Water Column Thickness (ft) [d-c]: 71.1	Well Volume (gal) [(d-c) x b]: 11.37 34.12									
	Water Level Measuring Point (ft, bls): "+" = below land surface "-" = above land surface +2	Key Number, if necessary to access well: N/A	Ground Condition of Well: <i>Good</i>									
	Remarks:											
CASING INFO	Casing I.D. (in) [a]: 1.5 2.0 2.2 3.0 4.0 4.3 5.0 6.0 7.0 8.0 10.0											
	Unit Casing Volume (gal/lin ft) [b]: 0.09 0.16 0.20 0.37 0.65 0.75 1.0 1.5 2.0 2.6 4.1											
Sample ID #(s)/Time(s)		No. of Containers/Volume/Type	Preserv.	Filtered (Y/N)	Analysis	Pump Type or Bailer	Discharge					
Sample ID = <u>POC#2-6-21-18</u>		Cubtainer	NP	Lab Filtered	Radiological	Electric submersible pump	<input checked="" type="checkbox"/> Water Discharged Container: Tank onsite <input type="checkbox"/> Water Discharged Directly Onto Site					
Sample Time = <u>12:11 P.M.</u>		500ml	NP	N	Major Cations/Anions wet chem, D Metals							
Depth of Pump Inlet = <u>60</u> feet btoc		250-ml	HNO3	N	T Metals							
		500-ml	NaOH	N	Cyanide							
Time (24 hr)	Water Level (ft bmp)	Odor (Y/N)	Volume Removed (gal)	Pumping Rate (gpm)	Flow Meter Read (gal)	Temp (C)	Conductivity (uS/cm)	pH	Turbidity (NTU)	Color	Remarks (clarity, etc.)	
11:45am	14.9	N	0	2	—	21°	3170	6.52	33.5	clear	Pump on/	
11:50am	27.8	N	10	2	—	20.1°	3043	6.62	13.5	clear	Purge water in to storage tank	
11:55am	29.4	N	20	2	—	19.7°	3001	6.67	15.6	clear		
12:03pm	30	N	30	2	—	19.5°	2980	6.67	13.1	clear		
12:08pm	32.2	N	40	2	—	19.5	2982	6.67	8.02	clear		
12:10	25		40	2	—						<i>pump off/ after pump is off, record: water level, volume remove, and flow meter reading</i>	

Stabilization: +/- 10%, +/- 0.2 pH, +/- 10% conductivity, for 2 consecutive purge volumes

PLEASE COMPLETE THE FORM FOR ALL FIELDS

Verdad Group, LLC

pH and Conductivity calibration form
Daily record

Project: AMI POC-2 Sampling
Date: 6-21-18
Sampler: Robert Dodson

Instrument: YSI Pro Plus
Serial #:

Pre/cal time: 7:40 am
Post/cal time: 8:10 am

Standard	Lot Number	Exp date	Store date	Temp	Pre	Calibrated
pH 4.00						
pH 7.00						
pH 10.00						
Cond 1413						

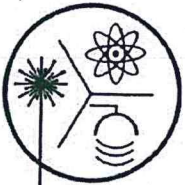
sampler Robert Dodson

signature 

**POC #2 – MW3
Monthly**

LABORATORY			
Analyte – ICP/MS	Total	Dissolved	Other
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		
Hardness			X

FIELD MEASUREMENTS	
	pH
	Specific conductance
	Temperature
	Depth to water
	Turbidity



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

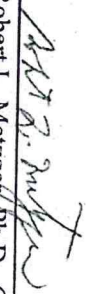
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: June 21, 2018
Sample Received: June 29, 2018
Analysis Completed: July 11, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18F0594-01	< 2.4	< 0.4	< 0.6	< 0.6
Date of Analysis	7/9/2018	6/29/2018	6/29/2018	6/29/2018


Robert L. Metzger, Ph.D., C.H.P. 7/11/2018
Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality
Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
 Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____

PWS Name: _____

June 21, 2018 12:11 (24 hour clock)

Sample Date _____ Sample Time _____ Owner/Contact Person _____

Owner/Contact Fax Number _____ Owner/Contact Phone Number _____

Sample Collection Point _____
 EPDS # _____

Compliance Sample Type:

- Reduced Monitoring Date Q1 collected: _____
 Quarterly Date Q2 collected: _____
 Composite of four quarterly samples Date Q3 collected: _____
 Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Combined Uranium must be reported in micrograms per liter

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
600/00-02	15 pCi/L	3 pCi/L	Adjusted Gross Alpha	4000	7/9/2018	< 2.4	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	6/29/2018	< 0.6	
GammaRay HPGE		1 pCi/L	Radium 226	4020	6/29/2018	< 0.4	
GammaRay HPGE		1 pCi/L	Radium 228	4030	6/29/2018	< 0.6	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60620
 Lab ID Number: AZ0462
 Lab Name: Radiation Safety Engineering, Inc.
 Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459
 Comments: 18F0594-01
 Authorized Signature: Robert L. Metzger
 Date Public Water System Notified: _____
 DWAR 6: 1/2007

SUBCONTRACT ORDER
Turner Laboratories, Inc.
18F0594

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone: (480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis

Expires

Laboratory ID

Comments

Sample ID: 18F0594-01 Drinking Water Sampled: 06/21/2018 12:11

Radiochemistry, Radium 226/228

07/21/2018 12:11

Radiochemistry, Gross Alpha

12/18/2018 12:11

Containers Supplied:

160690

Released By

Date

6/25/18 1600

Received By

Date

6/25/18 1600

Released By

Date

6-25-18

Received By

Date

6-25-18 10:30



September 10, 2018

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 18G0574

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 07/19/2018 for the analyses presented in the following report.

The attached report has been revised. Please refer to the Case Narrative page for an explanation of the changes. We apologize for any inconvenience this may have caused you.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,
Turner Laboratories, Inc.
ADHS License AZ0066

Kevin Brim
Project Manager

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18G0574-01	POC#2	Ground Water	07/19/2018 1041

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

This report was originally generated on 8/8/2018. It is being revised on 9/10/2018 to include the additional parameters of Cyanide and Radiochemistry, which was not on the original report.

- E4 Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
 - E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
 - H1 Sample analysis was performed past holding time.
 - M3 The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
- All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.
- ND Not Detected at or above the PQL
 - PQL Practical Quantitation Limit
 - DF Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Lab Sample ID: 18G0574-01

Client Sample ID: POC#2
Collection Date/Time: 07/19/2018 1041
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2200				mg/L	10	07/26/2018 1105	07/29/2018 1438	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	07/20/2018 1049	07/20/2018 1445	EJ
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	520		40		mg/L	10	07/23/2018 1230	07/24/2018 1639	MH
Iron	1.4		0.30		mg/L	1	07/23/2018 1230	07/24/2018 1616	MH
Magnesium	200		3.0		mg/L	1	07/23/2018 1230	07/24/2018 1616	MH
Manganese	27		0.20		mg/L	10	07/23/2018 1230	07/24/2018 1640	MH
Zinc	6.4		0.40		mg/L	10	07/23/2018 1230	07/24/2018 1640	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Arsenic	0.0082		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Barium	0.019		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Beryllium	0.00069		0.00050		mg/L	2	07/23/2018 1230	08/02/2018 1050	MH
Cadmium	0.0082		0.00025		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Chromium	ND		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Copper	ND		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Lead	0.0011		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Nickel	0.070		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Selenium	0.0017	0.00025	0.0025	E4	mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Thallium	ND		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	07/25/2018 1125	07/25/2018 1803	AR
ICP Total Metals-E200.7 (4.4)									
Calcium	520		40		mg/L	10	07/26/2018 1105	07/29/2018 1438	MH
Iron	1.6		0.30		mg/L	1	07/26/2018 1105	07/27/2018 1254	MH
Magnesium	220		3.0		mg/L	1	07/26/2018 1105	07/27/2018 1254	MH
Manganese	27		0.20		mg/L	10	07/26/2018 1105	07/29/2018 1439	MH
Zinc	6.5		0.40		mg/L	10	07/26/2018 1105	07/29/2018 1439	MH

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Lab Sample ID: 18G0574-01

Client Sample ID: POC#2
Collection Date/Time: 07/19/2018 1041
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Arsenic	0.0057		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Barium	0.022		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Beryllium	0.00060		0.00025		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Cadmium	0.0080		0.00025		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Chromium	ND		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Copper	0.0016		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Lead	0.0017		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Nickel	0.083		0.0050		mg/L	10	07/31/2018 1030	08/06/2018 1340	MH
Selenium	0.00073		0.0025		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Thallium	ND		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	07/31/2018 0920	07/31/2018 1334	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	07/20/2018 1049	07/20/2018 1445	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	07/20/2018 1049	07/20/2018 1445	EJ
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	07/20/2018 1049	07/20/2018 1445	EJ
Sulfate	2200		500		mg/L	100	07/20/2018 1049	07/31/2018 1821	MH
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	180		2.0		mg/L	1	07/31/2018 1430	07/31/2018 1530	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	07/31/2018 1430	07/31/2018 1530	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	07/31/2018 1430	07/31/2018 1530	EJ
Alkalinity, Total (As CaCO3)	180		2.0		mg/L	1	07/31/2018 1430	07/31/2018 1530	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3400		20		mg/L	1	07/25/2018 0910	08/02/2018 0845	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10	H1	mg/L	1	08/20/2018 1000	08/22/2018 1715	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807247 - E 200.2 D ICP										
Blank (1807247-BLK1) Prepared & Analyzed: 07/24/2018										
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1807247-BS1) Prepared & Analyzed: 07/24/2018										
Calcium	9.4	4.0	mg/L	10.00		94	85-115			
Iron	0.95	0.30	mg/L	1.000		95	85-115			
Magnesium	9.5	3.0	mg/L	10.00		95	85-115			
Manganese	0.48	0.020	mg/L	0.5000		96	85-115			
Zinc	0.47	0.040	mg/L	0.5000		93	85-115			
LCS Dup (1807247-BSD1) Prepared & Analyzed: 07/24/2018										
Calcium	9.4	4.0	mg/L	10.00		94	85-115	0.09	20	
Iron	0.95	0.30	mg/L	1.000		95	85-115	0.4	20	
Magnesium	9.5	3.0	mg/L	10.00		95	85-115	0.5	20	
Manganese	0.48	0.020	mg/L	0.5000		96	85-115	0.02	20	
Zinc	0.47	0.040	mg/L	0.5000		93	85-115	0.1	20	
Matrix Spike (1807247-MS1) Source: 18G0424-01 Prepared & Analyzed: 07/24/2018										
Calcium	89	4.0	mg/L	10.00	81	80	70-130			
Iron	0.95	0.30	mg/L	1.000	ND	95	70-130			
Magnesium	20	3.0	mg/L	10.00	11	93	70-130			
Manganese	0.87	0.020	mg/L	0.5000	0.42	90	70-130			
Zinc	0.53	0.040	mg/L	0.5000	0.082	91	70-130			
Matrix Spike (1807247-MS2) Source: 18G0425-02 Prepared & Analyzed: 07/24/2018										
Calcium	19	4.0	mg/L	10.00	9.6	91	70-130			
Iron	1.1	0.30	mg/L	1.000	0.12	95	70-130			
Magnesium	13	3.0	mg/L	10.00	4.0	95	70-130			
Manganese	0.57	0.020	mg/L	0.5000	0.087	96	70-130			
Zinc	0.48	0.040	mg/L	0.5000	0.024	91	70-130			
Batch 1807271 - E 245.1 DISS										
Blank (1807271-BLK1) Prepared & Analyzed: 07/25/2018										
Mercury	ND	0.00050	mg/L							
LCS (1807271-BS1) Prepared & Analyzed: 07/25/2018										
Mercury	0.0047	0.00050	mg/L	0.005000		94	85-115			
LCS Dup (1807271-BSD1) Prepared & Analyzed: 07/25/2018										
Mercury	0.0050	0.00050	mg/L	0.005000		100	85-115	7	20	
Matrix Spike (1807271-MS1) Source: 18G0541-01 Prepared & Analyzed: 07/25/2018										
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115			
Matrix Spike Dup (1807271-MSD1) Source: 18G0541-01 Prepared & Analyzed: 07/25/2018										
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115	0.3	20	

Client: Arizona Minerals Inc.
 Project: Ground Water
 Work Order: 18G0574
 Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807276 - E 200.8 D ICP/MS										
Blank (1807276-BLK1)				Prepared & Analyzed: 07/29/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1807276-BS1)				Prepared & Analyzed: 07/29/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Barium	0.051	0.00050	mg/L	0.05000		102	85-115			
Beryllium	0.052	0.00025	mg/L	0.05000		104	85-115			
Cadmium	0.052	0.00025	mg/L	0.05000		105	85-115			
Chromium	0.053	0.00050	mg/L	0.05000		105	85-115			
Copper	0.051	0.00050	mg/L	0.05000		102	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Nickel	0.053	0.00050	mg/L	0.05000		107	85-115			
Selenium	0.051	0.0015	mg/L	0.05000		102	85-115			
Thallium	0.052	0.00050	mg/L	0.05000		103	85-115			
LCS Dup (1807276-BSD1)				Prepared & Analyzed: 07/29/2018						
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115	2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.1	20	
Barium	0.051	0.00050	mg/L	0.05000		102	85-115	0.6	20	
Beryllium	0.051	0.00025	mg/L	0.05000		102	85-115	2	20	
Cadmium	0.053	0.00025	mg/L	0.05000		106	85-115	1	20	
Chromium	0.053	0.00050	mg/L	0.05000		106	85-115	0.7	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	2	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115	2	20	
Selenium	0.052	0.0015	mg/L	0.05000		103	85-115	1	20	
Thallium	0.053	0.00050	mg/L	0.05000		106	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807276 - E 200.8 D ICP/MS										
Matrix Spike (1807276-MS1)		Source: 18G0523-01			Prepared & Analyzed: 07/29/2018					
Antimony	0.049	0.00050	mg/L	0.05000	0.00020	99	70-130			
Arsenic	0.051	0.00050	mg/L	0.05000	0.0019	99	70-130			
Barium	0.076	0.00050	mg/L	0.05000	0.025	102	70-130			
Beryllium	0.052	0.00025	mg/L	0.05000	0.000041	104	70-130			
Cadmium	0.052	0.00025	mg/L	0.05000	0.00011	103	70-130			
Chromium	0.050	0.00050	mg/L	0.05000	0.00037	100	70-130			
Copper	0.051	0.00050	mg/L	0.05000	0.0048	93	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.0011	94	70-130			
Nickel	0.050	0.00050	mg/L	0.05000	0.00089	99	70-130			
Selenium	0.052	0.0015	mg/L	0.05000	ND	103	70-130			
Thallium	0.051	0.00050	mg/L	0.05000	ND	102	70-130			
Batch 1807288 - E 200.2 ICP										
Blank (1807288-BLK1)		Prepared: 07/26/2018 Analyzed: 07/27/2018								
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1807288-BS1)		Prepared: 07/26/2018 Analyzed: 07/27/2018								
Calcium	9.5	4.0	mg/L	10.00		95	85-115			
Iron	1.0	0.30	mg/L	1.000		103	85-115			
Magnesium	9.7	3.0	mg/L	10.00		97	85-115			
Manganese	0.51	0.020	mg/L	0.5000		102	85-115			
Zinc	0.48	0.040	mg/L	0.5000		96	85-115			
LCS Dup (1807288-BSD1)		Prepared: 07/26/2018 Analyzed: 07/27/2018								
Calcium	9.6	4.0	mg/L	10.00		96	85-115	1	20	
Iron	1.0	0.30	mg/L	1.000		104	85-115	0.4	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	1	20	
Manganese	0.52	0.020	mg/L	0.5000		105	85-115	2	20	
Zinc	0.49	0.040	mg/L	0.5000		98	85-115	2	20	
Matrix Spike (1807288-MS1)		Source: 18G0585-02			Prepared: 07/26/2018 Analyzed: 07/27/2018					
Calcium	220	4.0	mg/L	10.00	220	44	70-130			M3
Iron	1.7	0.30	mg/L	1.000	0.68	103	70-130			
Magnesium	56	3.0	mg/L	10.00	46	100	70-130			
Manganese	0.54	0.020	mg/L	0.5000	0.038	101	70-130			
Zinc	0.68	0.040	mg/L	0.5000	0.18	99	70-130			
Matrix Spike (1807288-MS2)		Source: 18G0666-01			Prepared: 07/26/2018 Analyzed: 07/27/2018					
Calcium	72	4.0	mg/L	10.00	63	87	70-130			
Iron	1.1	0.30	mg/L	1.000	0.045	106	70-130			
Magnesium	630	30	mg/L	10.00	630	9	70-130			M3
Manganese	0.48	0.020	mg/L	0.5000	ND	97	70-130			
Zinc	0.47	0.040	mg/L	0.5000	0.0039	94	70-130			
Batch 1807341 - E 245.1										

Client: Arizona Minerals Inc.
 Project: Ground Water
 Work Order: 18G0574
 Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807341 - E 245.1										
Blank (1807341-BLK1)				Prepared & Analyzed: 07/31/2018						
Mercury	ND	0.0010	mg/L							
LCS (1807341-BS1)				Prepared & Analyzed: 07/31/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		100	85-115			
LCS Dup (1807341-BSD1)				Prepared & Analyzed: 07/31/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		101	85-115	1	20	
Matrix Spike (1807341-MS1)				Source: 18G0643-01		Prepared & Analyzed: 07/31/2018				
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115			
Matrix Spike Dup (1807341-MSD1)				Source: 18G0643-01		Prepared & Analyzed: 07/31/2018				
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115	0.05	20	
Batch 1808001 - E 200.8 ICP/MS										
Blank (1808001-BLK1)				Prepared: 07/31/2018 Analyzed: 08/01/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1808001-BS1)				Prepared: 07/31/2018 Analyzed: 08/01/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Barium	0.048	0.00050	mg/L	0.05000		96	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115			
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115			
Copper	0.052	0.00050	mg/L	0.05000		104	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		101	85-115			
Selenium	0.049	0.0015	mg/L	0.05000		99	85-115			
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115			

Client: Arizona Minerals Inc.
 Project: Ground Water
 Work Order: 18G0574
 Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808001 - E 200.8 ICP/MS										
LCS Dup (1808001-bsd1)				Prepared: 07/31/2018 Analyzed: 08/01/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115	0.3	20	
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115	2	20	
Barium	0.048	0.00050	mg/L	0.05000		96	85-115	0.5	20	
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115	0.5	20	
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115	2	20	
Chromium	0.050	0.00050	mg/L	0.05000		100	85-115	4	20	
Copper	0.053	0.00050	mg/L	0.05000		106	85-115	2	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	0.2	20	
Nickel	0.053	0.00050	mg/L	0.05000		106	85-115	5	20	
Selenium	0.051	0.0015	mg/L	0.05000		101	85-115	3	20	
Thallium	0.050	0.00050	mg/L	0.05000		99	85-115	2	20	

Matrix Spike (1808001-MS1)		Source: 18G0635-04			Prepared: 07/31/2018 Analyzed: 08/01/2018					
Antimony	0.047	0.00050	mg/L	0.05000	0.00014	94	70-130			
Arsenic	0.057	0.00050	mg/L	0.05000	0.0077	99	70-130			
Barium	0.053	0.00050	mg/L	0.05000	0.0050	96	70-130			
Beryllium	0.047	0.00025	mg/L	0.05000	0.000019	95	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	ND	99	70-130			
Chromium	0.064	0.00050	mg/L	0.05000	0.011	104	70-130			
Copper	0.11	0.00050	mg/L	0.05000	0.044	128	70-130			
Lead	0.058	0.00050	mg/L	0.05000	0.0090	98	70-130			
Nickel	0.054	0.00050	mg/L	0.05000	0.0010	107	70-130			
Selenium	0.050	0.0015	mg/L	0.05000	0.0012	98	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.000059	99	70-130			

Client: Arizona Minerals Inc.
 Project: Ground Water
 Work Order: 18G0574
 Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807263 - GEN CHEM										
Duplicate (1807263-DUP1) Source: 18G0576-01 Prepared: 07/25/2018 Analyzed: 08/02/2018										
Total Dissolved Solids (Residue, Filterable)	440	20	mg/L		420			5	5	
Batch 1808009 - GEN CHEM										
LCS (1808009-BS1) Prepared & Analyzed: 07/31/2018										
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		101	90-110			
LCS Dup (1808009-BSD1) Prepared & Analyzed: 07/31/2018										
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		100	90-110	0.8	10	
Matrix Spike (1808009-MS1) Source: 18G0565-01 Prepared & Analyzed: 07/31/2018										
Alkalinity, Total (As CaCO3)	350	2.0	mg/L	250.0	100	98	70-130			
Matrix Spike Dup (1808009-MSD1) Source: 18G0565-01 Prepared & Analyzed: 07/31/2018										
Alkalinity, Total (As CaCO3)	350	2.0	mg/L	250.0	100	100	70-130	1	10	
Batch 1808286 - SPECTRO PREP										
Blank (1808286-BLK1) Prepared: 08/20/2018 Analyzed: 08/22/2018										
Cyanide	ND	0.10	mg/L							
LCS (1808286-BS1) Prepared: 08/20/2018 Analyzed: 08/22/2018										
Cyanide	2.0	0.10	mg/L	2.000		102	90-110			
LCS Dup (1808286-BSD1) Prepared: 08/20/2018 Analyzed: 08/22/2018										
Cyanide	2.1	0.10	mg/L	2.000		103	90-110	2	20	
Matrix Spike (1808286-MS1) Source: 18H0333-07 Prepared: 08/20/2018 Analyzed: 08/22/2018										
Cyanide	1.9	0.10	mg/L	2.000	ND	96	70-130			
Matrix Spike Dup (1808286-MSD1) Source: 18H0333-07 Prepared: 08/20/2018 Analyzed: 08/22/2018										
Cyanide	2.0	0.10	mg/L	2.000	ND	102	70-130	6	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807236 - IC PREP										
Blank (1807236-BLK1)				Prepared & Analyzed: 07/20/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1807236-BS1)				Prepared & Analyzed: 07/20/2018						
Fluoride	2.0	0.50	mg/L	2.000		102	90-110			
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000		102	90-110			
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		102	90-110			
Sulfate	12	5.0	mg/L	12.50		98	90-110			
LCS Dup (1807236-BSD1)				Prepared & Analyzed: 07/20/2018						
Fluoride	2.0	0.50	mg/L	2.000		101	90-110	1	10	
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000		101	90-110	0.4	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		101	90-110	1	10	
Sulfate	12	5.0	mg/L	12.50		99	90-110	0.3	10	
Matrix Spike (1807236-MS1)				Source: 18G0529-05		Prepared & Analyzed: 07/20/2018				
Fluoride	2.0	0.50	mg/L	2.000	0.13	95	80-120			
Nitrogen, Nitrate (As N)	5.9	0.50	mg/L	5.000	0.85	100	80-120			
Nitrogen, Nitrite (As N)	2.1	0.10	mg/L	2.500	ND	83	80-120			
Sulfate	44	5.0	mg/L	12.50	33	94	80-120			
Matrix Spike Dup (1807236-MSD1)				Source: 18G0529-05		Prepared & Analyzed: 07/20/2018				
Fluoride	2.0	0.50	mg/L	2.000	0.13	96	80-120	1	10	
Nitrogen, Nitrate (As N)	5.9	0.50	mg/L	5.000	0.85	101	80-120	0.4	10	
Nitrogen, Nitrite (As N)	2.1	0.10	mg/L	2.500	ND	84	80-120	1	10	
Sulfate	44	5.0	mg/L	12.50	33	95	80-120	0.2	10	

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 1390574 DATE 7/19/18 PAGE 1 OF 2

PROJECT NAME Groundwater # _____
 CONTACT NAME Johnny Pappas
 COMPANY NAME Arizona Mining
 ADDRESS 3845N Business Center Drive, Suite 115
 ZIP 85705 PHONE 520-235-3300 EMAIL
 SAMPLER'S SIGNATURE Shawn J. Pappas

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX		NUMBER OF CONTAINERS	SAMPLE MATRIX*
<input type="checkbox"/> Acids	<input type="checkbox"/> Base Neutrals	4	Groundwater
<input type="checkbox"/> 625/8270	<input type="checkbox"/> Volatile Organics		
<input type="checkbox"/> 624	<input type="checkbox"/> 524.2		
<input type="checkbox"/> 8260	<input type="checkbox"/> HAAS		
<input type="checkbox"/> Chloride	<input type="checkbox"/> Sulfate		
<input type="checkbox"/> NO ₂	<input type="checkbox"/> NO ₃		
<input type="checkbox"/> TKN	<input type="checkbox"/> 1664		
<input type="checkbox"/> TPH	<input type="checkbox"/> Oil & Grease		
<input type="checkbox"/> VOA	<input type="checkbox"/> TCLP Analysis		
<input type="checkbox"/> Semi-VOA	<input type="checkbox"/> Pstl.		
<input type="checkbox"/> Metals	<input type="checkbox"/> Total		
<input type="checkbox"/> TCLP	<input type="checkbox"/> Dissolved		
<input type="checkbox"/> RCRAB	<input type="checkbox"/> Cyanide		
<input type="checkbox"/> Amen.	<input type="checkbox"/> SDWA-INORGANICS		
<input type="checkbox"/> WAD	<input type="checkbox"/> PRIMARY		
<input type="checkbox"/> SECONDARY	<input type="checkbox"/> Coliform		
<input type="checkbox"/> Fecal	<input type="checkbox"/> MPN		
<input type="checkbox"/> pH	<input type="checkbox"/> C ₆		
<input type="checkbox"/> C ₁	<input type="checkbox"/> C ₂		
<input type="checkbox"/> Turb	<input type="checkbox"/> TSS		
<input type="checkbox"/> BOD	<input type="checkbox"/> COD		

* See attached

1. RELINQUISHED BY:
 Signature Sarah L
 Printed Name Darrah Richman
 Firm AM
 Date/Time 7/19/18 1631

2. RECEIVED BY:
 Signature _____
 Printed Name _____
 Firm _____
 Date/Time _____

3. RELINQUISHED BY:
 Signature _____
 Printed Name _____
 Firm _____
 Date/Time _____

TURNAROUND REQUIREMENTS:
 Standard (approx. 10 days)*
 Next Day 2 Day 5 Day*
 Email Preliminary Results
 * Working Days

REPORT REQUIREMENTS:
 I. Routine Report
 II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
 III. Date Validation Report (Includes All Raw Data) Add 10% to invoice

INVOICE INFORMATION:
 Account Y N
 P.O. #
 Bill to:
 Temperature 7.9
 Total Containers 4
 Wet Ice
 Ambient
 Blue Ice

SAMPLE RECEIPT:

4. RECEIVED BY:
 Signature [Signature]
 Printed Name Archie Ryl
 Firm TURNER LABORATORIES, INC.
 Date/Time 7/19/18 1631

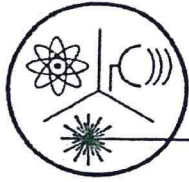
* LEGEND
 SAMPLE MATRIX
 DW = DRINKING WATER
 GW = GROUNDWATER
 SD = SOLID
 SG = SLUDGE
 SL = SOIL
 ST = STORMWATER
 WW = WASTEWATER

COMPLIANCE ANALYSIS: Yes No
 ADEQ FORMS: Yes No
 MAIL ADEQ FORMS: Yes No
 SPECIAL INSTRUCTIONS/COMMENTS:

CUSTOMY SEALS:
 CONTAINER INTACT:
 COC / LABELS AGREE:
 PRESERVATION CONFIRMATION:
 APPROPRIATE HEAD SPACE:
 RECEIVED WITHIN HOLD TIME:

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water

LABORATORY		
Analyte	Total	Dissolved
Metals		Other
Antimony	X	X
Arsenic	X	X
Barium	X	X
Beryllium	X	X
Cadmium	X	X
Chromium	X	X
Copper	X	X
Iron	X	X
Lead	X	X
Manganese	X	X
Mercury	X	X
Nickel	X	X
Selenium	X	X
Thallium	X	X
Zinc	X	X
Major Cations		
Hardness	X	X
Major Anions		
Total Alkalinity	X	
Acidity	X	
Fluoride	X	X
Nitrate – Nitrite as N	X	X
Nitrite - N	X	X
Nitrate-Nitrite as N I	X	X
Sulfate	X	X
Parameters		
Total Dissolved Solids		X
RadChem		
Gross Alpha Particle		
Activity		
Radium 226 + 228		
Cyanide		
Free CN		Free



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
 Website: www.radsafe.com

(480) 897-9459
 FAX (480) 892-5446

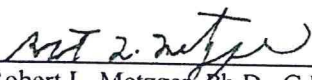
Radiochemical Activity in Water (pCi/L)

Turner Laboratories
 2445 N. Coyote Drive, Ste. 104
 Tucson, AZ 85745

Sampling Date: July 19, 2018
 Sample Received: August 14, 2018
 Analysis Completed: August 27, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18G0574-01	2.2 ± 1.0	< 0.4	< 0.6	< 0.6

Date of Analysis	8/20/2018	8/17/2018	8/17/2018	8/17/2018


 _____ 8/27/2018
 Robert L. Metzger, Ph.D., C.H.P. Date
 Laboratory License Number AZ0462

Arizona Department of Environmental Quality
Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____

PWS Name: _____

July 19, 2018 10:41 (24 hour clock)

Sample Date Sample Time

Owner/Contact Person

Owner/Contact Fax Number

Owner/Contact Phone Number

Sample Collection Point

EPDS # _____

Compliance Sample Type:

Reduced Monitoring

Date Q1 collected: _____

Quarterly

Date Q2 collected: _____

Composite of four quarterly samples

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Combined Uranium must be reported in micrograms per liter

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	8/20/2018	2.2 ± 1.0	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	8/17/2018	< 0.6	
GammaRay HPGE		1 pCi/L	Radium 226	4020	8/17/2018	< 0.4	
GammaRay HPGE		1 pCi/L	Radium 228	4030	8/17/2018	< 0.6	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

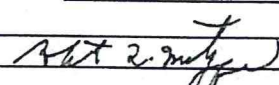
Specimen Number: RSE60829

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 18G0574-01

Authorized Signature: 

Date Public Water System Notified: _____

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18G0574

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
----------	---------	---------------	----------

Sample ID: 18G0574-01 Drinking Water Sampled:07/19/2018 10:41

Radiochemistry, Radium 226/228 08/18/2018 10:41

Radiochemistry, Gross Alpha 01/15/2019 10:41

Containers Supplied:

60829

Released By

Date

8/13/18 1600

Received By

Date

8/13/18 1600

Released By

Date

Received By

Date

Scarlet D Carter 8/14/18 10:50



September 10, 2018

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 18H0633
Order Name: POC #2

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 08/22/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

Order: POC #2

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18H0633-01	POC#2	Ground Water	08/21/2018 1105

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

- D5 Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
 - E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
 - M2 Matrix spike recovery was low; the associated LCS/LCSD was acceptable.
 - M3 The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
- All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.
- ND Not Detected at or above the PQL
 - PQL Practical Quantitation Limit
 - DF Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Lab Sample ID: 18H0633-01

Client Sample ID: POC#2
Collection Date/Time: 08/21/2018 1105
Matrix: Ground Water
Order Name: POC #2

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2200				mg/L	10	08/22/2018 1355	08/27/2018 1230	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	08/22/2018 1750	08/22/2018 1950	EJ
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	540		20	M3	mg/L	5	08/24/2018 0815	08/24/2018 1022	MH
Iron	ND		1.5	D5	mg/L	5	08/24/2018 0815	08/24/2018 1022	MH
Magnesium	220		15	M3	mg/L	5	08/24/2018 0815	08/24/2018 1022	MH
Manganese	26		0.20	M3	mg/L	10	08/24/2018 0815	08/24/2018 1803	MH
Zinc	7.9		0.20	M3	mg/L	5	08/24/2018 0815	08/24/2018 1023	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Arsenic	0.0068		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Barium	0.018		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Beryllium	0.00060		0.00025		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Cadmium	0.0087		0.00025		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Chromium	ND		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Copper	0.00065		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Lead	ND		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Nickel	0.063		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Selenium	0.0016		0.0015		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Thallium	ND		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	08/24/2018 1105	08/24/2018 1504	RAD
ICP Total Metals-E200.7 (4.4)									
Calcium	500		40		mg/L	10	08/22/2018 1355	08/27/2018 1230	MH
Iron	ND		3.0	D5	mg/L	10	08/22/2018 1355	08/27/2018 1230	MH
Magnesium	220		30		mg/L	10	08/22/2018 1355	08/27/2018 1230	MH
Manganese	27		0.20		mg/L	10	08/22/2018 1355	08/27/2018 1231	MH

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Lab Sample ID: 18H0633-01

Client Sample ID: POC#2
Collection Date/Time: 08/21/2018 1105
Matrix: Ground Water
Order Name: POC #2

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Zinc	6.7		0.40		mg/L	10	08/22/2018 1355	08/27/2018 1231	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	08/22/2018 1355	09/06/2018 1510	MH
Arsenic	0.0068		0.0050		mg/L	10	08/22/2018 1355	08/31/2018 1444	MH
Barium	0.017		0.0050		mg/L	10	08/22/2018 1355	08/31/2018 1444	MH
Beryllium	0.00060		0.00025		mg/L	1	08/22/2018 1355	09/05/2018 2035	MH
Cadmium	0.0087		0.0025		mg/L	10	08/22/2018 1355	08/31/2018 1444	MH
Chromium	0.00058		0.00050		mg/L	1	08/22/2018 1355	09/05/2018 2035	MH
Copper	ND		0.00050		mg/L	1	08/22/2018 1355	09/05/2018 2035	MH
Lead	0.0011		0.00050		mg/L	1	08/22/2018 1355	09/06/2018 1510	MH
Nickel	0.071		0.0050		mg/L	10	08/22/2018 1355	08/31/2018 1444	MH
Selenium	0.0020		0.0015		mg/L	1	08/22/2018 1355	09/05/2018 2035	MH
Thallium	ND		0.00050		mg/L	1	08/22/2018 1355	09/06/2018 1510	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	08/30/2018 1045	08/30/2018 1436	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	08/22/2018 1750	08/22/2018 1950	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	08/22/2018 1750	08/22/2018 1950	EJ
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	08/22/2018 1750	08/22/2018 1950	EJ
Sulfate	2100		500		mg/L	100	08/24/2018 1110	08/24/2018 1435	EJ
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	160		2.0		mg/L	1	08/31/2018 1530	08/31/2018 1630	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/31/2018 1530	08/31/2018 1630	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/31/2018 1530	08/31/2018 1630	EJ
Alkalinity, Total (As CaCO3)	160		2.0		mg/L	1	08/31/2018 1530	08/31/2018 1630	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	08/23/2018 0854	08/30/2018 1700	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	09/04/2018 0900	09/05/2018 1645	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Lab Sample ID: 18H0633-01

Client Sample ID: POC#2
Collection Date/Time: 08/21/2018 1105
Matrix: Ground Water
Order Name: POC #2

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
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Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808309 - E 200.7 (4.4)										
Blank (1808309-BLK1) Prepared & Analyzed: 08/24/2018										
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1808309-BS1) Prepared & Analyzed: 08/24/2018										
Calcium	9.8	4.0	mg/L	10.00		98	85-115			
Iron	1.0	0.30	mg/L	1.000		103	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Manganese	0.47	0.020	mg/L	0.5000		94	85-115			
Zinc	0.54	0.040	mg/L	0.5000		109	85-115			
LCS Dup (1808309-BSD1) Prepared & Analyzed: 08/24/2018										
Calcium	10	4.0	mg/L	10.00		102	85-115	5	20	
Iron	1.1	0.30	mg/L	1.000		106	85-115	3	20	
Magnesium	10	3.0	mg/L	10.00		102	85-115	4	20	
Manganese	0.50	0.020	mg/L	0.5000		100	85-115	6	20	
Zinc	0.53	0.040	mg/L	0.5000		107	85-115	2	20	
Matrix Spike (1808309-MS1) Source: 18H0633-01 Prepared & Analyzed: 08/24/2018										
Calcium	540	20	mg/L	10.00	540	NR	70-130			M3
Iron	2.3	1.5	mg/L	1.000	1.3	104	70-130			
Magnesium	230	15	mg/L	10.00	220	55	70-130			M3
Manganese	27	0.20	mg/L	0.5000	26	210	70-130			M3
Zinc	9.5	0.20	mg/L	0.5000	7.9	321	70-130			M3
Batch 1808319 - E 245.1										
Blank (1808319-BLK1) Prepared & Analyzed: 08/24/2018										
Mercury	ND	0.00050	mg/L							
LCS (1808319-BS1) Prepared & Analyzed: 08/24/2018										
Mercury	0.0051	0.00050	mg/L	0.005000		102	85-115			
LCS Dup (1808319-BSD1) Prepared & Analyzed: 08/24/2018										
Mercury	0.0051	0.00050	mg/L	0.005000		102	85-115	0.7	20	
Matrix Spike (1808319-MS1) Source: 18H0669-01 Prepared & Analyzed: 08/24/2018										
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115			
Matrix Spike Dup (1808319-MSD1) Source: 18H0669-01 Prepared & Analyzed: 08/24/2018										
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115	0.5	20	
Batch 1808346 - E200.7 (4.4)										

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1808346 - E200.7 (4.4)										
Blank (1808346-BLK1) Prepared & Analyzed: 08/27/2018										
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1808346-BS1) Prepared & Analyzed: 08/27/2018										
Calcium	11	4.0	mg/L	10.00		108	85-115			
Iron	1.1	0.30	mg/L	1.000		112	85-115			
Magnesium	11	3.0	mg/L	10.00		110	85-115			
Manganese	0.51	0.020	mg/L	0.5000		102	85-115			
Zinc	0.48	0.040	mg/L	0.5000		97	85-115			
LCS Dup (1808346-BSD1) Prepared & Analyzed: 08/27/2018										
Calcium	9.6	4.0	mg/L	10.00		96	85-115	12	20	
Iron	1.0	0.30	mg/L	1.000		101	85-115	11	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	11	20	
Manganese	0.51	0.020	mg/L	0.5000		103	85-115	1	20	
Zinc	0.49	0.040	mg/L	0.5000		98	85-115	1	20	
Matrix Spike (1808346-MS1) Source: 18H0482-01 Prepared & Analyzed: 08/27/2018										
Calcium	100	4.0	mg/L	10.00	95	76	70-130			
Iron	1.1	0.30	mg/L	1.000	0.099	99	70-130			
Magnesium	40	3.0	mg/L	10.00	31	93	70-130			
Manganese	0.50	0.020	mg/L	0.5000	ND	100	70-130			
Zinc	0.53	0.040	mg/L	0.5000	0.058	95	70-130			
Batch 1808406 - E 200.8 (5.4)										
Blank (1808406-BLK1) Prepared & Analyzed: 08/30/2018										
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1808406 - E 200.8 (5.4)										
LCS (1808406-BS1)				Prepared & Analyzed: 08/30/2018						
Antimony	0.053	0.00050	mg/L	0.05000		105	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Barium	0.051	0.00050	mg/L	0.05000		102	85-115			
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		99	85-115			
Chromium	0.052	0.00050	mg/L	0.05000		103	85-115			
Copper	0.051	0.00050	mg/L	0.05000		101	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115			
Selenium	0.049	0.0015	mg/L	0.05000		98	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			
LCS Dup (1808406-BSD1)				Prepared & Analyzed: 08/30/2018						
Antimony	0.051	0.00050	mg/L	0.05000		103	85-115	2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	2	20	
Barium	0.049	0.00050	mg/L	0.05000		98	85-115	3	20	
Beryllium	0.051	0.00025	mg/L	0.05000		103	85-115	2	20	
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115	1	20	
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115	1	20	
Copper	0.052	0.00050	mg/L	0.05000		104	85-115	2	20	
Lead	0.050	0.00050	mg/L	0.05000		101	85-115	0.8	20	
Nickel	0.051	0.00050	mg/L	0.05000		103	85-115	1	20	
Selenium	0.048	0.0015	mg/L	0.05000		97	85-115	1	20	
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Matrix Spike (1808406-MS1)				Source: 18H0693-01		Prepared & Analyzed: 08/30/2018				
Antimony	0.051	0.00050	mg/L	0.05000	0.00031	102	70-130			
Arsenic	0.051	0.00050	mg/L	0.05000	0.0015	100	70-130			
Barium	0.083	0.00050	mg/L	0.05000	0.035	96	70-130			
Beryllium	0.051	0.00025	mg/L	0.05000	0.000075	101	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	0.0027	95	70-130			
Chromium	0.050	0.00050	mg/L	0.05000	0.00035	100	70-130			
Copper	0.056	0.00050	mg/L	0.05000	0.0075	97	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.0014	101	70-130			
Nickel	0.048	0.00050	mg/L	0.05000	ND	97	70-130			
Selenium	0.052	0.0015	mg/L	0.05000	0.00033	104	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.000025	100	70-130			
Batch 1808408 - E245.1										
Blank (1808408-BLK1)				Prepared & Analyzed: 08/30/2018						
Mercury	ND	0.0010	mg/L							
LCS (1808408-BS1)				Prepared & Analyzed: 08/30/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		100	85-115			
LCS Dup (1808408-BSD1)				Prepared & Analyzed: 08/30/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		100	85-115	0.4	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808408 - E245.1										
Matrix Spike (1808408-MS1)		Source: 18H0697-01			Prepared & Analyzed: 08/30/2018					
Mercury	0.0045	0.0010	mg/L	0.005000	ND	91	85-115			
Matrix Spike (1808408-MS2)		Source: 18H0767-01			Prepared & Analyzed: 08/30/2018					
Mercury	0.0044	0.0010	mg/L	0.005000	ND	89	85-115			
Matrix Spike Dup (1808408-MSD1)		Source: 18H0697-01			Prepared & Analyzed: 08/30/2018					
Mercury	0.0049	0.0010	mg/L	0.005000	ND	97	85-115	7	20	
Matrix Spike Dup (1808408-MSD2)		Source: 18H0767-01			Prepared & Analyzed: 08/30/2018					
Mercury	0.0044	0.0010	mg/L	0.005000	ND	88	85-115	0.9	20	
Batch 1808423 - E200.8 (5.4)										
Blank (1808423-BLK1)				Prepared & Analyzed: 08/31/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1808423-BS1)				Prepared & Analyzed: 08/31/2018						
Antimony	0.052	0.00050	mg/L	0.05000		104	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Barium	0.049	0.00050	mg/L	0.05000		99	85-115			
Beryllium	0.053	0.00025	mg/L	0.05000		105	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		99	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		100	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.051	0.00050	mg/L	0.05000		103	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115			
Selenium	0.048	0.0015	mg/L	0.05000		96	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			

Client: Arizona Minerals Inc.
 Project: Ground Water
 Work Order: 18H0633
 Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 1808423 - E200.8 (5.4)										
LCS Dup (1808423-BSD1)				Prepared & Analyzed: 08/31/2018						
Antimony	0.051	0.00050	mg/L	0.05000		101	85-115	3	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.3	20	
Barium	0.047	0.00050	mg/L	0.05000		95	85-115	4	20	
Beryllium	0.054	0.00025	mg/L	0.05000		107	85-115	2	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	2	20	
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115	3	20	
Copper	0.052	0.00050	mg/L	0.05000		103	85-115	0.4	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	3	20	
Nickel	0.053	0.00050	mg/L	0.05000		107	85-115	5	20	
Selenium	0.048	0.0015	mg/L	0.05000		96	85-115	0.01	20	
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115	0.2	20	
Matrix Spike (1808423-MS1)				Source: 18H0555-01		Prepared & Analyzed: 08/31/2018				
Antimony	0.052	0.00050	mg/L	0.05000	0.00016	103	70-130			
Arsenic	0.051	0.00050	mg/L	0.05000	0.00043	101	70-130			
Barium	0.058	0.00050	mg/L	0.05000	0.010	96	70-130			
Beryllium	0.054	0.00025	mg/L	0.05000	ND	107	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	ND	97	70-130			
Chromium	0.083	0.00050	mg/L	0.05000	0.022	121	70-130			
Copper	0.056	0.00050	mg/L	0.05000	0.0068	99	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.00038	103	70-130			
Nickel	0.070	0.00050	mg/L	0.05000	0.011	119	70-130			
Selenium	0.051	0.0015	mg/L	0.05000	0.00054	100	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	ND	100	70-130			
Matrix Spike (1808423-MS2)				Source: 18H0575-01		Prepared & Analyzed: 08/31/2018				
Antimony	0.052	0.00050	mg/L	0.05000	0.000054	104	70-130			
Arsenic	0.053	0.00050	mg/L	0.05000	0.00029	105	70-130			
Barium	0.10	0.00050	mg/L	0.05000	0.053	94	70-130			
Beryllium	0.047	0.00025	mg/L	0.05000	ND	95	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	0.000052	99	70-130			
Chromium	0.053	0.00050	mg/L	0.05000	0.00065	104	70-130			
Copper	0.12	0.00050	mg/L	0.05000	0.068	95	70-130			
Lead	0.055	0.00050	mg/L	0.05000	0.0015	107	70-130			
Nickel	0.049	0.00050	mg/L	0.05000	0.00030	97	70-130			
Selenium	0.054	0.0015	mg/L	0.05000	0.0017	105	70-130			
Thallium	0.052	0.00050	mg/L	0.05000	ND	104	70-130			

Client: Arizona Minerals Inc.
 Project: Ground Water
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QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1808290 - SM2540 C										
Duplicate (1808290-DUP1) Source: 18H0605-10 Prepared: 08/23/2018 Analyzed: 08/28/2018										
Total Dissolved Solids (Residue, Filterable)	1300	20	mg/L		1300			1	5	
Duplicate (1808290-DUP2) Source: 18H0607-01 Prepared: 08/23/2018 Analyzed: 08/30/2018										
Total Dissolved Solids (Residue, Filterable)	560	20	mg/L		560			0.7	5	
Batch 1809004 - SM2320B										
LCS (1809004-BS1) Prepared & Analyzed: 08/31/2018										
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		101	90-110			
LCS Dup (1809004-BSD1) Prepared & Analyzed: 08/31/2018										
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		100	90-110	0.8	10	
Matrix Spike (1809004-MS1) Source: 18H0605-10 Prepared & Analyzed: 08/31/2018										
Alkalinity, Total (As CaCO3)	820	2.0	mg/L	250.0	570	98	70-130			
Matrix Spike Dup (1809004-MSD1) Source: 18H0605-10 Prepared & Analyzed: 08/31/2018										
Alkalinity, Total (As CaCO3)	820	2.0	mg/L	250.0	570	98	70-130	0	10	
Batch 1809018 - SM4500-CN BE										
Blank (1809018-BLK1) Prepared: 09/04/2018 Analyzed: 09/05/2018										
Cyanide	ND	0.10	mg/L							
LCS (1809018-BS1) Prepared: 09/04/2018 Analyzed: 09/05/2018										
Cyanide	1.8	0.10	mg/L	2.000		90	90-110			
LCS Dup (1809018-BSD1) Prepared: 09/04/2018 Analyzed: 09/05/2018										
Cyanide	1.9	0.10	mg/L	2.000		97	90-110	7	20	
Matrix Spike (1809018-MS1) Source: 18H0577-02 Prepared: 09/04/2018 Analyzed: 09/05/2018										
Cyanide	2.0	0.10	mg/L	2.000	ND	98	70-130			
Matrix Spike Dup (1809018-MSD1) Source: 18H0577-02 Prepared: 09/04/2018 Analyzed: 09/05/2018										
Cyanide	2.0	0.10	mg/L	2.000	ND	101	70-130	3	20	

Client: Arizona Minerals Inc.
Project: Ground Water
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QC Summary

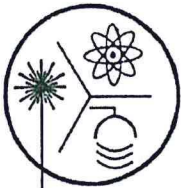
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 1808283 - E300.0 (2.1)										
Blank (1808283-BLK1) Prepared & Analyzed: 08/22/2018										
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1808283-BS1) Prepared & Analyzed: 08/22/2018										
Fluoride	1.9	0.50	mg/L	2.000		95	90-110			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		99	90-110			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		99	90-110			
Sulfate	12	5.0	mg/L	12.50		95	90-110			
LCS Dup (1808283-BSD1) Prepared & Analyzed: 08/22/2018										
Fluoride	2.0	0.50	mg/L	2.000		99	90-110	5	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		99	90-110	0.2	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		99	90-110	0.5	10	
Sulfate	12	5.0	mg/L	12.50		96	90-110	0.4	10	
Matrix Spike (1808283-MS1) Source: 18H0607-01 Prepared & Analyzed: 08/22/2018										
Fluoride	2.2	0.50	mg/L	2.000	0.26	96	80-120			
Nitrogen, Nitrite (As N)	1.9	0.10	mg/L	2.500	ND	75	80-120			M2
Matrix Spike (1808283-MS2) Source: 18H0651-01 Prepared: 08/22/2018 Analyzed: 08/23/2018										
Fluoride	2.0	0.50	mg/L	2.000	0.10	97	80-120			
Nitrogen, Nitrite (As N)	1.8	0.10	mg/L	2.500	ND	72	80-120			M2
Matrix Spike (1808283-MS3) Source: 18H0669-01 Prepared & Analyzed: 08/23/2018										
Fluoride	1.9	0.50	mg/L	2.000	ND	96	80-120			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	0.12	96	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	95	80-120			
Sulfate	12	5.0	mg/L	12.50	1.1	85	80-120			
Matrix Spike Dup (1808283-MSD1) Source: 18H0607-01 Prepared & Analyzed: 08/22/2018										
Fluoride	2.1	0.50	mg/L	2.000	0.26	94	80-120	2	10	
Nitrogen, Nitrite (As N)	1.9	0.10	mg/L	2.500	ND	75	80-120	0.7	10	M2
Matrix Spike Dup (1808283-MSD2) Source: 18H0651-01 Prepared: 08/22/2018 Analyzed: 08/23/2018										
Fluoride	2.1	0.50	mg/L	2.000	0.10	98	80-120	1	10	
Nitrogen, Nitrite (As N)	1.9	0.10	mg/L	2.500	ND	74	80-120	3	10	M2
Matrix Spike Dup (1808283-MSD3) Source: 18H0669-01 Prepared & Analyzed: 08/23/2018										
Fluoride	1.9	0.50	mg/L	2.000	ND	96	80-120	0.4	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	0.12	96	80-120	0.1	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	95	80-120	0.3	10	
Sulfate	12	5.0	mg/L	12.50	1.1	84	80-120	0.2	10	

POC-2 Monthly Suite

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Antimony	X	X	
Arsenic	X	X	
Barium	X	X	
Beryllium	X	X	
Cadmium	X	X	
Chromium	X	X	
Copper	X	X	
Iron	X	X	
Lead	X	X	
Manganese	X	X	
Mercury	X	X	
Nickel	X	X	
Selenium	X	X	
Thallium	X	X	
Zinc	X	X	
Major Cations			
Hardness	X	X	
Major Anions			
Total Alkalinity	X		
Acidity			
Fluoride	X	X	
Nitrate – Nitrite as N	X	X	
Nitrite - N	X	X	
Nitrate-Nitrite as N 1	X	X	
Sulfate	X	X	
Parameters			
Total Dissolved Solids		X	
RadChem			
Gross Alpha Particle Activity	X	X	
Radium 226 + 228	X	X	
Cyanide			
Free CN	X	X	Free

FIELD MEASUREMENTS

pH
Specific conductance
Temperature
Depth to water



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: August 21, 2018
Sample Received: August 24, 2018
Analysis Completed: August 31, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18H0633-01	< 2.2	< 0.5	< 0.7	< 0.7
Date of Analysis	8/29/2018	8/24/2018	8/24/2018	8/24/2018


Robert L. Metzger, Ph.D., C.H.P. Date: 8/31/2018
Laboratory License Number AZ0462

Arizona Department of Environmental Quality
Drinking Water Radionuclides--Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
 Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

August 21, 2018 11:05 (24 hour clock) _____

Sample Date Sample Time _____ Owner/Contact Person _____

Owner/Contact Fax Number _____ Owner/Contact Phone Number _____

Sample Collection Point _____
 EPDS # _____

Compliance Sample Type:

- Reduced Monitoring Date Q1 collected: _____
- Quarterly Date Q2 collected: _____
- Composite of four quarterly samples Date Q3 collected: _____
 Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Combined Uranium must be reported in micrograms per liter

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
600/00-02	15 pCi/L	3 pCi/L	Adjusted Gross Alpha	4000			
7500 - Rn			Gross Alpha	4002	8/29/2018	< 2.2	
ASTM D6239	30 µg/L	1 µg/L	Radon	4004			
			Combined Uranium	4006			
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
			Combined Radium (226,228)	4010	8/24/2018	< 0.7	
Gammakay HPGE	5 pCi/L	1 pCi/L	Radium 226	4020	8/24/2018	< 0.5	
Gammakay HPGE		1 pCi/L	Radium 228	4030	8/24/2018	< 0.7	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60879
 Lab ID Number: AZ0462
 Lab Name: Radiation Safety Engineering, Inc.
 Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459
 Comments: 18H0633-01
 Authorized Signature: Robert L. Metzger
 Date Public Water System Notified: _____
 DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18H0633

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone: (480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis

Expires

Laboratory ID

Comments

Sample ID: 18H0633-01 Drinking Water Sampled:08/21/2018 11:05



Radiochemistry, Radium 226/228

09/20/2018 11:05

Radiochemistry, Gross Alpha

02/17/2019 11:05

Containers Supplied:

600879

Released By		Date	8/23/18	1600	Received By	UPS	Date	8/23/18	1600
Released By		Date			Received By	Sawlet D Costas	Date	8/24/18	11:23



September 28, 2018

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

RE: Ground Water

Work Order No.: 18I0459
Order Name: POC-2 Monthly

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 09/18/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

Order: POC-2 Monthly

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18I0459-01	POC#2-91718	Ground Water	09/17/2018 1310

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

- B1 Target analyte detected in the method blank at or above the method reporting limit.
- B3 Target analyte detected in calibration blank at or above the method reporting limit.
- B7 Target analyte detected in method blank at or above the method reporting limit. Concentration found in the sample was 10 times above the concentration found in the method blank.
- D5 Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
- E4 Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
- E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
- M3 The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

- ND Not Detected at or above the PQL
- PQL Practical Quantitation Limit
- DF Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Lab Sample ID: 18I0459-01

Client Sample ID: POC#2-91718
Collection Date/Time: 09/17/2018 1310
Matrix: Ground Water
Order Name: POC-2 Monthly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2100				mg/L	10	09/19/2018 1035	09/21/2018 1214	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	09/18/2018 1130	09/18/2018 1149	EJ
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	500		40		mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
Iron	ND		3.0	D5	mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
Magnesium	210		30		mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
Manganese	26		0.20		mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
Zinc	6.2		0.40		mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Arsenic	0.0076		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Barium	0.018		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Beryllium	0.00049		0.00025		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Cadmium	0.0070		0.00025		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Chromium	ND		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Copper	0.00050		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Lead	ND		0.0050	D5	mg/L	10	09/21/2018 1555	09/24/2018 1423	MH
Nickel	0.071		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Selenium	0.0021		0.0015		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Thallium	ND		0.0050	D5	mg/L	10	09/21/2018 1555	09/24/2018 1423	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	09/26/2018 1050	09/26/2018 1653	AR
ICP Total Metals-E200.7 (4.4)									
Calcium	490		40		mg/L	10	09/19/2018 1035	09/21/2018 1214	MH
Iron	1.8		0.30		mg/L	1	09/19/2018 1035	09/21/2018 1354	MH
Magnesium	210		30		mg/L	10	09/19/2018 1035	09/21/2018 1214	MH
Manganese	26		0.20		mg/L	10	09/19/2018 1035	09/21/2018 1215	MH

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Lab Sample ID: 18I0459-01

Client Sample ID: POC#2-91718
Collection Date/Time: 09/17/2018 1310
Matrix: Ground Water
Order Name: POC-2 Monthly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Zinc	5.9		0.40		mg/L	10	09/19/2018 1035	09/21/2018 1215	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Arsenic	0.0068		0.00050		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Barium	0.019		0.00050		mg/L	1	09/19/2018 1105	09/21/2018 1801	MH
Beryllium	0.00053		0.00025		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Cadmium	0.0071		0.00025		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Chromium	ND		0.00050	B3	mg/L	1	09/19/2018 1105	09/21/2018 1801	MH
Copper	0.0012		0.0010		mg/L	2	09/19/2018 1105	09/21/2018 1657	MH
Lead	0.0038		0.00050		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Nickel	0.068		0.00050	B7	mg/L	1	09/19/2018 1105	09/21/2018 1801	MH
Selenium	0.00041	0.00025	0.0015	E4	mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Thallium	ND		0.00050		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	09/20/2018 1040	09/20/2018 1430	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	09/18/2018 1130	09/18/2018 1149	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	09/18/2018 1130	09/18/2018 1149	EJ
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	09/18/2018 1130	09/18/2018 1149	EJ
Sulfate	2100		500		mg/L	100	09/18/2018 1305	09/18/2018 1329	EJ
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	170		2.0		mg/L	1	09/25/2018 1500	09/25/2018 1600	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	09/25/2018 1500	09/25/2018 1600	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	09/25/2018 1500	09/25/2018 1600	EJ
Alkalinity, Total (As CaCO3)	170		2.0		mg/L	1	09/25/2018 1500	09/25/2018 1600	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3200		20		mg/L	1	09/19/2018 0819	09/27/2018 0940	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	09/19/2018 1000	09/21/2018 1505	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Lab Sample ID: 18I0459-01

Client Sample ID: POC#2-91718
Collection Date/Time: 09/17/2018 1310
Matrix: Ground Water
Order Name: POC-2 Monthly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
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Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1809195 - E200.8 (5.4)										
Blank (1809195-BLK1)										
				Prepared: 09/19/2018 Analyzed: 09/20/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	0.0040	0.00050	mg/L							B1
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1809195-BS1)										
				Prepared: 09/19/2018 Analyzed: 09/20/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115			
Barium	0.051	0.00050	mg/L	0.05000		103	85-115			
Beryllium	0.048	0.00025	mg/L	0.05000		96	85-115			
Cadmium	0.048	0.00025	mg/L	0.05000		97	85-115			
Chromium	0.046	0.00050	mg/L	0.05000		93	85-115			
Copper	0.049	0.00050	mg/L	0.05000		98	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.053	0.00050	mg/L	0.05000		105	85-115			
Selenium	0.047	0.0015	mg/L	0.05000		95	85-115			
Thallium	0.048	0.00050	mg/L	0.05000		97	85-115			
LCS Dup (1809195-BSD1)										
				Prepared: 09/19/2018 Analyzed: 09/20/2018						
Antimony	0.048	0.00050	mg/L	0.05000		97	85-115	1	20	
Arsenic	0.048	0.00050	mg/L	0.05000		95	85-115	1	20	
Barium	0.050	0.00050	mg/L	0.05000		100	85-115	2	20	
Beryllium	0.047	0.00025	mg/L	0.05000		95	85-115	1	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	1	20	
Chromium	0.046	0.00050	mg/L	0.05000		92	85-115	1	20	
Copper	0.048	0.00050	mg/L	0.05000		96	85-115	2	20	
Lead	0.047	0.00050	mg/L	0.05000		94	85-115	4	20	
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115	3	20	
Selenium	0.047	0.0015	mg/L	0.05000		93	85-115	1	20	
Thallium	0.047	0.00050	mg/L	0.05000		94	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1809195 - E200.8 (5.4)										
Matrix Spike (1809195-MS1)		Source: 18I0441-01			Prepared: 09/19/2018 Analyzed: 09/20/2018					
Antimony	0.048	0.00050	mg/L	0.05000	ND	95	70-130			
Arsenic	0.049	0.00050	mg/L	0.05000	0.00026	97	70-130			
Barium	0.075	0.00050	mg/L	0.05000	0.035	79	70-130			
Beryllium	0.048	0.00025	mg/L	0.05000	0.000030	96	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.00023	94	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.00094	102	70-130			B3
Copper	0.050	0.00050	mg/L	0.05000	0.0048	90	70-130			
Lead	0.049	0.00050	mg/L	0.05000	0.0012	95	70-130			
Nickel	0.051	0.00050	mg/L	0.05000	0.0034	95	70-130			
Selenium	0.048	0.0015	mg/L	0.05000	ND	97	70-130			
Thallium	0.047	0.00050	mg/L	0.05000	ND	95	70-130			
Batch 1809196 - E200.7 (4.4)										
Blank (1809196-BLK1)		Prepared: 09/19/2018 Analyzed: 09/21/2018								
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1809196-BS1)		Prepared: 09/19/2018 Analyzed: 09/21/2018								
Calcium	9.8	4.0	mg/L	10.00		98	85-115			
Iron	1.0	0.30	mg/L	1.000		102	85-115			
Magnesium	10	3.0	mg/L	10.00		100	85-115			
Manganese	0.52	0.020	mg/L	0.5000		105	85-115			
Zinc	0.50	0.040	mg/L	0.5000		99	85-115			
LCS Dup (1809196-BSD1)		Prepared: 09/19/2018 Analyzed: 09/21/2018								
Calcium	9.4	4.0	mg/L	10.00		94	85-115	4	20	
Iron	0.97	0.30	mg/L	1.000		97	85-115	5	20	
Magnesium	9.6	3.0	mg/L	10.00		96	85-115	5	20	
Manganese	0.50	0.020	mg/L	0.5000		100	85-115	5	20	
Zinc	0.47	0.040	mg/L	0.5000		94	85-115	5	20	
Matrix Spike (1809196-MS1)		Source: 18I0418-02			Prepared: 09/19/2018 Analyzed: 09/21/2018					
Calcium	190	4.0	mg/L	10.00	190	NR	70-130			M3
Iron	1.9	0.30	mg/L	1.000	0.99	92	70-130			
Magnesium	47	3.0	mg/L	10.00	39	81	70-130			
Manganese	0.59	0.020	mg/L	0.5000	0.079	103	70-130			
Zinc	0.68	0.040	mg/L	0.5000	0.20	96	70-130			
Matrix Spike (1809196-MS2)		Source: 18I0459-01			Prepared: 09/19/2018 Analyzed: 09/21/2018					
Calcium	500	40	mg/L	10.00	490	118	70-130			
Iron	2.9	0.30	mg/L	1.000	1.8	108	70-130			
Magnesium	220	30	mg/L	10.00	210	113	70-130			
Manganese	26	0.20	mg/L	0.5000	26	92	70-130			
Zinc	6.3	0.40	mg/L	0.5000	5.9	94	70-130			
Batch 1809209 - E245.1										

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1809209 - E245.1										
Blank (1809209-BLK1)				Prepared & Analyzed: 09/20/2018						
Mercury	ND	0.0010	mg/L							
LCS (1809209-BS1)				Prepared & Analyzed: 09/20/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		100	85-115			
LCS Dup (1809209-BSD1)				Prepared & Analyzed: 09/20/2018						
Mercury	0.0049	0.0010	mg/L	0.005000		97	85-115	3	20	
Matrix Spike (1809209-MS1)				Source: 18I0446-01		Prepared & Analyzed: 09/20/2018				
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115			
Matrix Spike Dup (1809209-MSD1)				Source: 18I0446-01		Prepared & Analyzed: 09/20/2018				
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115	0.1	20	
Batch 1809226 - E 200.8 (5.4)										
Blank (1809226-BLK1)				Prepared & Analyzed: 09/24/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1809226-BS1)				Prepared & Analyzed: 09/24/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Barium	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		101	85-115			
Chromium	0.052	0.00050	mg/L	0.05000		103	85-115			
Copper	0.051	0.00050	mg/L	0.05000		102	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		103	85-115			
Selenium	0.049	0.0015	mg/L	0.05000		97	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			

Client: Arizona Minerals Inc.
 Project: Ground Water
 Work Order: 18I0459
 Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1809226 - E 200.8 (5.4)										
LCS Dup (1809226-BSD1)				Prepared & Analyzed: 09/24/2018						
Antimony	0.051	0.00050	mg/L	0.05000		102	85-115	4	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.5	20	
Barium	0.052	0.00050	mg/L	0.05000		104	85-115	4	20	
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115	0.3	20	
Cadmium	0.052	0.00025	mg/L	0.05000		105	85-115	4	20	
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Copper	0.052	0.00050	mg/L	0.05000		104	85-115	1	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	0.3	20	
Nickel	0.051	0.00050	mg/L	0.05000		101	85-115	2	20	
Selenium	0.049	0.0015	mg/L	0.05000		97	85-115	0.004	20	
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115	3	20	
Matrix Spike (1809226-MS1)				Source: 1810523-01 Prepared & Analyzed: 09/24/2018						
Antimony	0.048	0.00050	mg/L	0.05000	0.00034	94	70-130			
Arsenic	0.056	0.00050	mg/L	0.05000	0.0055	101	70-130			
Barium	0.070	0.00050	mg/L	0.05000	0.025	90	70-130			
Beryllium	0.050	0.00025	mg/L	0.05000	0.000045	100	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.000087	96	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.00030	103	70-130			
Copper	0.050	0.00050	mg/L	0.05000	0.0023	96	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.00024	96	70-130			
Nickel	0.049	0.00050	mg/L	0.05000	ND	98	70-130			
Selenium	0.052	0.0015	mg/L	0.05000	0.00036	104	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.000064	95	70-130			
Batch 1809243 - E 200.7 (4.4)										
Blank (1809243-BLK1)				Prepared & Analyzed: 09/25/2018						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1809243-BS1)				Prepared & Analyzed: 09/25/2018						
Calcium	9.9	4.0	mg/L	10.00		99	85-115			
Iron	1.0	0.30	mg/L	1.000		103	85-115			
Magnesium	10	3.0	mg/L	10.00		100	85-115			
Manganese	0.52	0.020	mg/L	0.5000		103	85-115			
Zinc	0.53	0.040	mg/L	0.5000		106	85-115			
LCS Dup (1809243-BSD1)				Prepared & Analyzed: 09/25/2018						
Calcium	9.6	4.0	mg/L	10.00		96	85-115	4	20	
Iron	1.0	0.30	mg/L	1.000		101	85-115	2	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	1	20	
Manganese	0.52	0.020	mg/L	0.5000		103	85-115	0.01	20	
Zinc	0.52	0.040	mg/L	0.5000		105	85-115	1	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1809243 - E 200.7 (4.4)										
Matrix Spike (1809243-MS1)		Source: 18I0523-01			Prepared & Analyzed: 09/25/2018					
Calcium	27	4.0	mg/L	10.00	18	89	70-130			
Iron	1.0	0.30	mg/L	1.000	0.053	98	70-130			
Magnesium	12	3.0	mg/L	10.00	2.1	98	70-130			
Manganese	0.52	0.020	mg/L	0.5000	0.012	101	70-130			
Zinc	0.53	0.040	mg/L	0.5000	ND	105	70-130			
Batch 1809257 - E 245.1										
Blank (1809257-BLK1)				Prepared & Analyzed: 09/26/2018						
Mercury	ND	0.00050	mg/L							
LCS (1809257-BS1)				Prepared & Analyzed: 09/26/2018						
Mercury	0.0048	0.00050	mg/L	0.005000		96	85-115			
LCS Dup (1809257-BSD1)				Prepared & Analyzed: 09/26/2018						
Mercury	0.0048	0.00050	mg/L	0.005000		97	85-115	0.5	20	
Matrix Spike (1809257-MS1)		Source: 18I0527-01			Prepared & Analyzed: 09/26/2018					
Mercury	0.0045	0.00050	mg/L	0.005000	ND	90	85-115			
Matrix Spike Dup (1809257-MSD1)		Source: 18I0527-01			Prepared & Analyzed: 09/26/2018					
Mercury	0.0046	0.00050	mg/L	0.005000	ND	92	85-115	2	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1809191 - SM2540 C										
Duplicate (1809191-DUP1)		Source: 18I0440-01		Prepared: 09/19/2018 Analyzed: 09/21/2018						
Total Dissolved Solids (Residue, Filterable)	640	20	mg/L		650			3	5	
Batch 1809218 - SM4500-CN BE										
Blank (1809218-BLK1)		Prepared: 09/19/2018 Analyzed: 09/21/2018								
Cyanide	ND	0.10	mg/L							
LCS (1809218-BS1)		Prepared: 09/19/2018 Analyzed: 09/21/2018								
Cyanide	2.0	0.10	mg/L	2.000		99	90-110			
LCS Dup (1809218-BSD1)		Prepared: 09/19/2018 Analyzed: 09/21/2018								
Cyanide	2.0	0.10	mg/L	2.000		99	90-110	0.4	20	
Matrix Spike (1809218-MS1)		Source: 18I0189-02		Prepared: 09/19/2018 Analyzed: 09/21/2018						
Cyanide	1.9	0.10	mg/L	2.000	ND	96	70-130			
Matrix Spike Dup (1809218-MSD1)		Source: 18I0189-02		Prepared: 09/19/2018 Analyzed: 09/21/2018						
Cyanide	2.0	0.10	mg/L	2.000	ND	99	70-130	4	20	
Batch 1809246 - SM2320B										
LCS (1809246-BS1)		Prepared & Analyzed: 09/25/2018								
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		98	90-110			
LCS Dup (1809246-BSD1)		Prepared & Analyzed: 09/25/2018								
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		98	90-110	0	10	
Matrix Spike (1809246-MS1)		Source: 18I0441-01		Prepared & Analyzed: 09/25/2018						
Alkalinity, Total (As CaCO3)	290	2.0	mg/L	250.0	62	93	70-130			
Matrix Spike Dup (1809246-MSD1)		Source: 18I0441-01		Prepared & Analyzed: 09/25/2018						
Alkalinity, Total (As CaCO3)	290	2.0	mg/L	250.0	62	93	70-130	0	10	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

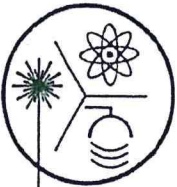
QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1809175 - E300.0 (2.1)										
Blank (1809175-BLK1) Prepared & Analyzed: 09/18/2018										
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1809175-BS1) Prepared & Analyzed: 09/18/2018										
Fluoride	2.0	0.50	mg/L	2.000		100	90-110			
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000		97	90-110			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		101	90-110			
Sulfate	12	5.0	mg/L	12.50		98	90-110			
LCS Dup (1809175-BSD1) Prepared & Analyzed: 09/18/2018										
Fluoride	2.0	0.50	mg/L	2.000		99	90-110	0.8	10	
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000		96	90-110	0.5	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		101	90-110	0.4	10	
Sulfate	12	5.0	mg/L	12.50		98	90-110	0.5	10	
Matrix Spike (1809175-MS1) Source: 18I0463-02 Prepared & Analyzed: 09/18/2018										
Fluoride	2.1	0.50	mg/L	2.000	0.10	98	80-120			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.19	96	80-120			
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500	ND	103	80-120			
Sulfate	13	5.0	mg/L	12.50	1.4	90	80-120			
Matrix Spike (1809175-MS2) Source: 18I0510-04 Prepared & Analyzed: 09/18/2018										
Fluoride	2.2	0.50	mg/L	2.000	0.31	94	80-120			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.18	96	80-120			
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500	ND	105	80-120			
Sulfate	13	5.0	mg/L	12.50	1.4	92	80-120			
Matrix Spike Dup (1809175-MSD1) Source: 18I0463-02 Prepared & Analyzed: 09/18/2018										
Fluoride	2.1	0.50	mg/L	2.000	0.10	98	80-120	0.5	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.19	95	80-120	0.4	10	
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500	ND	103	80-120	0.3	10	
Sulfate	13	5.0	mg/L	12.50	1.4	89	80-120	0.2	10	
Matrix Spike Dup (1809175-MSD2) Source: 18I0510-04 Prepared & Analyzed: 09/18/2018										
Fluoride	2.2	0.50	mg/L	2.000	0.31	96	80-120	2	10	
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000	0.18	98	80-120	2	10	
Nitrogen, Nitrite (As N)	2.7	0.10	mg/L	2.500	ND	107	80-120	2	10	
Sulfate	13	5.0	mg/L	12.50	1.4	93	80-120	1	10	

POC-2 Monthly Suite

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Antimony	X ✓	X ✓	
Arsenic	X ✓	X ✓	
Barium	X ✓	X ✓	
Beryllium	X ✓	X ✓	
Cadmium	X ✓	X ✓	
Chromium	X ✓	X ✓	
Copper	X ✓	X ✓	
Iron	X ✓	X ✓	
Lead	X ✓	X ✓	
Manganese	X ✓	X ✓	
Mercury	X ✓	X ✓	
Nickel	X ✓	X ✓	
Selenium	X ✓	X ✓	
Thallium	X ✓	X ✓	
Zinc	X ✓	X ✓	
Major Cations			
Hardness	X ✓	X ✓	
Major Anions			
Total Alkalinity	X ✓		
Acidity	X ✓		
Fluoride	X ✓	X ✓	
Nitrate – Nitrite as N	X ✓	X ✓	
Nitrite - N	X ✓	X ✓	
Nitrate-Nitrite as N 1	X ✓	X ✓	
Sulfate	X ✓	X ✓	
Parameters			
Total Dissolved Solids		X ✓	
RadChem			
Gross Alpha Particle Activity	X ✓	X ✓	
Radium 226 + 228	X ✓	X ✓	
Cyanide			
Free CN	X ✓	X ✓	Free

FIELD MEASUREMENTS	
pH	
Specific conductance	
Temperature	
Depth to water	



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: September 17, 2018
Sample Received: September 19, 2018
Analysis Completed: September 28, 2018

Sample ID	Gross Alpha Activity Method (pCi/L)	Radium 226 Activity Method (pCi/L)	Radium 228 Activity Method (pCi/L)	Total Radium (pCi/L)
1810459-01	< 2.1	< 0.5	< 0.7	< 0.7

Date of Analysis	9/26/2018	9/21/2018	9/21/2018	9/21/2018
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Robert L. Metzger, Ph.D., C.H.P. Date: 9/28/2018
Laboratory License Number AZ0462

Arizona Department of Environmental Quality
Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
 Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

September 17, 2018 13:10 (24 hour clock) _____
 Sample Date Sample Time Owner/Contact Person

Owner/Contact Fax Number _____
 Owner/Contact Phone Number _____

Sample Collection Point _____
 EPDS # _____

Compliance Sample Type:
 Reduced Monitoring Date Q1 collected: _____
 Quarterly Date Q2 collected: _____
 Composite of four quarterly samples Date Q3 collected: _____
 Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS
 >>>To be filled out by laboratory personnel<<<

Combined Uranium must be reported in micrograms per liter

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
600/00-02	15 pCi/L	3 pCi/L	Adjusted Gross Alpha	4000			
7500 - Rn			Gross Alpha	4002	9/26/2018	< 2.1	
ASTM D6239	30 µg/L	1 µg/L	Radon	4004			
			Combined Uranium	4006			µg/L
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
			Combined Radium (226,228)	4010	9/21/2018	< 0.7	
Gammaray HPGE	5 pCi/L	1 pCi/L	Radium 226	4020	9/21/2018	< 0.5	
Gammaray HPGE	1 pCi/L	1 pCi/L	Radium 228	4030	9/21/2018	< 0.7	

LABORATORY INFORMATION
 >>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60992
 Lab ID Number: AZ0462
 Lab Name: Radiation Safety Engineering, Inc.
 Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459
 Comments: 1810459-01
 Authorized Signature: Robert L. Metzger
 Date Public Water System Notified: _____
 DWAAR 6: 11/2007

SUBCONTRACT ORDER
Turner Laboratories, Inc.
1810459

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis

Expires Laboratory ID Comments

Sample ID: 1810459-01 Drinking Water Sampled:09/17/2018 13:10



Radiochemistry: Radium 226/228

10/17/2018 13:10

Radiochemistry: Gross Alpha

03/16/2019 13:10

Containers Supplied:

DWAR 9 Form

#60992

9/28/18
DWAR 9
needed per
L. Brim

Released By: Leandra Marshall Date: 9/18/18 16:00 Received By: UPS Date: 9/18/18 16:00

Released By: _____ Date: _____ Received By: Soulet Cortes Date: 9/19/18 9:55