



September 21, 2020

Sheena Leon  
Arizona Minerals Inc.  
2210 E. Fort Lowell Rd  
Tucson, AZ 85719

TEL (802) 235-5563  
FAX

Work Order No.: 20H0734  
Order Name: Groundwater

RE: Groundwater

Dear Sheena Leon,

Turner Laboratories, Inc. received 1 sample(s) on 08/28/2020 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.

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Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.  
ADHS License AZ0066

Elizabeth Kasik  
Laboratory Director

**Client:** Arizona Minerals Inc.  
**Project:** Groundwater  
**Work Order:** 20H0734  
**Date Received:** 08/28/2020

**Order:** Groundwater

**Work Order Sample Summary**

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Collection Date/Time</b>
20H0734-01	MW9-08282020	Ground Water	08/28/2020 1112

**Client:** Arizona Minerals Inc.  
**Project:** Groundwater  
**Work Order:** 20H0734  
**Date Received:** 08/28/2020

**Case Narrative**

The Cyanide and Cyanide WAD analyses were performed by TestAmerica Laboratories, Inc. in Phoenix, AZ.

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.
- E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
- H1 Sample analysis was performed past holding time.
- H2 Initial analysis was performed within holding time. Reanalysis for the required dilution was past holding time.
- M1 Matrix spike recovery was high; the associated LCS/LCSD was acceptable.
- 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.
- Q9 Insufficient sample received to meet method QC requirements.
- R12 RPD/RSD exceeded the method acceptance limit. Result less than 5 times the PQL.

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:** Groundwater  
**Work Order:** 20H0734  
**Lab Sample ID:** 20H0734-01

**Client Sample ID:** MW9-08282020  
**Collection Date/Time:** 08/28/2020 1112  
**Matrix:** Ground Water  
**Order Name:** Groundwater

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
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**Hardness-Calculation**

Hardness, Calcium/Magnesium (As CaCO3)	77				mg/L	1	08/28/2020 1645	09/02/2020 1530	MH
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**Nitrate + Nitrite Sum-Calculation**

Nitrate and Nitrite Sum	ND		0.10		mg/L	1	08/28/2020 1640	09/01/2020 1350	JG
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**ICP Dissolved Metals-E 200.7 (4.4)**

Boron	0.15		0.10		mg/L	1	08/31/2020 0920	09/01/2020 1110	MH
Calcium	33		4.0		mg/L	1	08/31/2020 0920	09/01/2020 1110	MH
Iron	ND		0.30		mg/L	1	08/31/2020 0920	09/01/2020 1110	MH
Magnesium	ND		3.0		mg/L	1	08/31/2020 0920	09/01/2020 1110	MH
Potassium	ND		5.0		mg/L	1	08/31/2020 0920	09/01/2020 1110	MH
Silica	19		1.0		mg/L	5	08/31/2020 0920	09/04/2020 1052	MH
Sodium	75		25		mg/L	5	08/31/2020 0920	09/02/2020 1051	MH
Zinc	ND		0.040		mg/L	1	08/31/2020 0920	09/01/2020 1111	MH

**ICP/MS Dissolved Metals-E 200.8 (5.4)**

Aluminum	ND		0.0400		mg/L	1	08/31/2020 0920	08/31/2020 1639	CR
Antimony	0.000048	0.000039	0.00050	E4	mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Arsenic	0.0068		0.00050		mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Barium	0.016		0.00050		mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Beryllium	ND	0.000013	0.00025	E8	mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Cadmium	ND	0.000050	0.00025	E8	mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Chromium	0.0011		0.00050		mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Cobalt	0.00013	0.000010	0.00025	E4	mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Copper	0.0012		0.00050		mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Lead	0.00068		0.00050		mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Manganese	0.081		0.00025		mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Nickel	0.0017		0.00050		mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Selenium	0.00035	0.00025	0.0025	E4	mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Silver	ND	0.000021	0.00050	E8	mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Thallium	ND	0.000023	0.00050	E8	mg/L	1	08/31/2020 0920	08/31/2020 1335	CR
Zinc	0.0030	0.0023	0.040	E4	mg/L	1	08/31/2020 0920	08/31/2020 1335	CR

**CVAA Dissolved Mercury-E 245.1**

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**Client Sample ID:** MW9-08282020  
**Collection Date/Time:** 08/28/2020 1112  
**Matrix:** Ground Water  
**Order Name:** Groundwater

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Mercury	ND		0.0010		mg/L	1	09/02/2020 1010	09/02/2020 1455	CR
<b>Turbidity-E180.1</b>									
Turbidity	0.90		0.10	H1	NTU	1	08/31/2020 1250	08/31/2020 1305	EJ
<b>ICP Total Metals-E200.7 (4.4)</b>									
Boron	0.13		0.10		mg/L	1	08/28/2020 1645	09/02/2020 1530	MH
Calcium	31		4.0		mg/L	1	08/28/2020 1645	09/02/2020 1530	MH
Iron	ND		0.30		mg/L	1	08/28/2020 1645	09/02/2020 1530	MH
Magnesium	ND		3.0		mg/L	1	08/28/2020 1645	09/02/2020 1530	MH
Potassium	ND		5.0		mg/L	1	08/28/2020 1645	09/02/2020 1530	MH
Silica	19		1.0		mg/L	5	08/28/2020 1645	09/04/2020 1142	MH
Sodium	74		5.0		mg/L	1	08/28/2020 1645	09/02/2020 1530	MH
Zinc	ND		0.040		mg/L	1	08/28/2020 1645	09/02/2020 1530	MH
<b>ICP/MS Total Metals-E200.8 (5.4)</b>									
Aluminum	ND		0.0400		mg/L	1	08/28/2020 1645	08/31/2020 1557	CR
Antimony	0.000050	0.000039	0.00050	E4	mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Arsenic	0.0070		0.00050		mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Barium	0.015		0.00050		mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Beryllium	ND	0.000013	0.00025	E8	mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Cadmium	ND	0.000050	0.00025	E8	mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Chromium	0.0016		0.00050		mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Cobalt	0.000137	0.0000104	0.000250	E4	mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Copper	0.00062		0.00050		mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Lead	0.0019		0.00050		mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Manganese	0.086		0.00025		mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Nickel	0.0013		0.00050		mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Selenium	0.00026	0.00025	0.0025	E4	mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Silver	0.000049	0.000021	0.00050	E4	mg/L	1	09/01/2020 1017	09/02/2020 1156	CR
Thallium	ND	0.000023	0.00050	E8	mg/L	1	08/28/2020 1645	08/31/2020 1142	CR
Zinc	0.0068	0.0023	0.040	E4	mg/L	1	08/28/2020 1645	08/31/2020 1142	CR

**CVAA Total Mercury-E245.1**

Mercury	ND		0.0010		mg/L	1	09/08/2020 1200	09/08/2020 1620	MH
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**Anions by Ion Chromatography-E300.0 (2.1)**

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**Collection Date/Time:** 08/28/2020 1112  
**Matrix:** Ground Water  
**Order Name:** Groundwater

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Chloride	4.4		1.0		mg/L	1	08/28/2020 1640	08/28/2020 2339	JG
Fluoride	ND		0.50		mg/L	1	08/28/2020 1640	08/28/2020 2339	JG
Nitrogen, Nitrate (As N)	ND		0.50	H2	mg/L	1	08/28/2020 1640	09/01/2020 1350	JG
Nitrogen, Nitrite (As N)	ND		0.10	H2	mg/L	1	08/28/2020 1640	09/01/2020 1350	JG
Sulfate	180		50		mg/L	10	08/28/2020 1640	08/31/2020 1917	JG
<b>Alkalinity-SM2320B</b>									
Alkalinity, Bicarbonate (As CaCO3)	62		2.0		mg/L	1	09/04/2020 0800	09/04/2020 1640	CWB
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	09/04/2020 0800	09/04/2020 1640	CWB
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	09/04/2020 0800	09/04/2020 1640	CWB
Alkalinity, Total (As CaCO3)	62		2.0		mg/L	1	09/04/2020 0800	09/04/2020 1640	CWB
<b>Total Dissolved Solids (Residue, Filterable)-SM2540 C</b>									
Total Dissolved Solids (Residue, Filterable)	320		20		mg/L	1	08/31/2020 1515	09/02/2020 0910	CWB
<b>Total Suspended Solids (Residue, Non-Filterable)-SM2540 D</b>									
Total Suspended Solids	ND		10	Q9	mg/L	1	09/03/2020 1110	09/04/2020 0855	CWB
<b>Ammonia as N-SM4500-NH3 B,C</b>									
Nitrogen, Ammonia (As N)	ND		0.50		mg/L	1	09/03/2020 0800	09/03/2020 1204	JG

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**Date Received:** 08/28/2020

**QC Summary**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 2008302 - E200.8 (5.4)</b>										
<b>Blank (2008302-BLK1)</b>				Prepared & Analyzed: 08/31/2020						
Aluminum	ND	0.0400	mg/L							
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							
Cobalt	ND	0.000250	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
<b>LCS (2008302-BS1)</b>										
				Prepared & Analyzed: 08/31/2020						
Aluminum	0.0955	0.0400	mg/L	0.1000		95	85-115			
Antimony	0.049	0.00050	mg/L	0.05000		97	85-115			
Arsenic	0.049	0.00050	mg/L	0.05000		98	85-115			
Barium	0.047	0.00050	mg/L	0.05000		95	85-115			
Beryllium	0.049	0.00025	mg/L	0.05000		99	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115			
Chromium	0.051	0.00050	mg/L	0.05000		101	85-115			
Cobalt	0.0514	0.000250	mg/L	0.05000		103	85-115			
Copper	0.049	0.00050	mg/L	0.05000		99	85-115			
Lead	0.048	0.00050	mg/L	0.05000		97	85-115			
Manganese	0.050	0.00025	mg/L	0.05000		100	85-115			
Nickel	0.052	0.00050	mg/L	0.05000		103	85-115			
Selenium	0.049	0.0025	mg/L	0.05000		99	85-115			
Silver	0.049	0.00050	mg/L	0.05000		97	85-115			
Thallium	0.045	0.00050	mg/L	0.05000		90	85-115			
Zinc	0.10	0.040	mg/L	0.1000		101	85-115			

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 Work Order: 20H0734  
 Date Received: 08/28/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch 2008302 - E200.8 (5.4)

LCS Dup (2008302-BSD1)

Prepared & Analyzed: 08/31/2020

Aluminum	0.0942	0.0400	mg/L	0.1000		94	85-115	1	20	
Antimony	0.048	0.00050	mg/L	0.05000		97	85-115	0.4	20	
Arsenic	0.049	0.00050	mg/L	0.05000		98	85-115	0.07	20	
Barium	0.047	0.00050	mg/L	0.05000		95	85-115	0.1	20	
Beryllium	0.049	0.00025	mg/L	0.05000		98	85-115	0.6	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	0.06	20	
Chromium	0.051	0.00050	mg/L	0.05000		101	85-115	0.03	20	
Cobalt	0.0507	0.000250	mg/L	0.05000		101	85-115	1	20	
Copper	0.049	0.00050	mg/L	0.05000		98	85-115	0.5	20	
Lead	0.049	0.00050	mg/L	0.05000		97	85-115	0.3	20	
Manganese	0.050	0.00025	mg/L	0.05000		100	85-115	0.2	20	
Nickel	0.052	0.00050	mg/L	0.05000		103	85-115	0.08	20	
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115	1	20	
Silver	0.049	0.00050	mg/L	0.05000		98	85-115	0.09	20	
Thallium	0.046	0.00050	mg/L	0.05000		91	85-115	1	20	
Zinc	0.10	0.040	mg/L	0.1000		100	85-115	0.9	20	

Matrix Spike (2008302-MS1)

Source: 20H0721-01

Prepared & Analyzed: 08/31/2020

Aluminum	0.0950	0.0400	mg/L	0.1000	0.0145	80	70-130			
Antimony	0.053	0.00050	mg/L	0.05000	0.000067	105	70-130			
Arsenic	0.065	0.00050	mg/L	0.05000	0.0073	116	70-130			
Barium	0.073	0.00050	mg/L	0.05000	0.024	99	70-130			
Beryllium	0.049	0.00025	mg/L	0.05000	0.000017	98	70-130			
Cadmium	0.051	0.00025	mg/L	0.05000	ND	103	70-130			
Chromium	0.081	0.00050	mg/L	0.05000	0.017	130	70-130			
Cobalt	0.0662	0.000250	mg/L	0.05000	0.0000910	132	70-130			M1
Copper	0.050	0.00050	mg/L	0.05000	0.0016	98	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.00018	105	70-130			
Manganese	0.065	0.00025	mg/L	0.05000	0.00048	130	70-130			
Nickel	0.066	0.00050	mg/L	0.05000	0.0011	130	70-130			M1
Selenium	0.069	0.0025	mg/L	0.05000	0.0076	122	70-130			
Silver	0.046	0.00050	mg/L	0.05000	0.000059	93	70-130			
Thallium	0.051	0.00050	mg/L	0.05000	0.00015	103	70-130			
Zinc	0.17	0.040	mg/L	0.1000	0.067	100	70-130			

Batch 2008341 - E200.7 (4.4)

Blank (2008341-BLK1)

Prepared & Analyzed: 09/02/2020

Boron	ND	0.10	mg/L							
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Potassium	ND	5.0	mg/L							
Sodium	ND	5.0	mg/L							
Zinc	ND	0.040	mg/L							



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**Date Received:** 08/28/2020

**QC Summary**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
<b>Batch 2008341 - E200.7 (4.4)</b>										
<b>LCS (2008341-BS1)</b>				Prepared & Analyzed: 09/02/2020						
Boron	0.97	0.10	mg/L	1.000		97	85-115			
Calcium	11	4.0	mg/L	10.00		105	85-115			
Iron	1.1	0.30	mg/L	1.000		111	85-115			
Magnesium	11	3.0	mg/L	10.00		106	85-115			
Potassium	11	5.0	mg/L	10.00		105	85-115			
Sodium	11	5.0	mg/L	10.00		107	85-115			
Zinc	0.49	0.040	mg/L	0.5000		97	85-115			
<b>LCS Dup (2008341-BS1)</b>				Prepared & Analyzed: 09/02/2020						
Boron	0.97	0.10	mg/L	1.000		97	85-115	0.4	20	
Calcium	11	4.0	mg/L	10.00		107	85-115	1	20	
Iron	1.1	0.30	mg/L	1.000		111	85-115	0.3	20	
Magnesium	11	3.0	mg/L	10.00		106	85-115	0.3	20	
Potassium	11	5.0	mg/L	10.00		107	85-115	1	20	
Sodium	11	5.0	mg/L	10.00		115	85-115	7	20	
Zinc	0.49	0.040	mg/L	0.5000		98	85-115	0.3	20	
<b>Matrix Spike (2008341-MS1)</b>				Source: 20H0692-01		Prepared & Analyzed: 09/02/2020				
Boron	1.2	0.10	mg/L	1.000	0.21	99	70-130			
Calcium	85	4.0	mg/L	10.00	73	118	70-130			
Iron	1.1	0.30	mg/L	1.000	0.0079	109	70-130			
Magnesium	23	3.0	mg/L	10.00	13	105	70-130			
Potassium	13	5.0	mg/L	10.00	2.6	103	70-130			
Sodium	97	5.0	mg/L	10.00	85	116	70-130			
Zinc	0.51	0.040	mg/L	0.5000	0.0073	101	70-130			
<b>Batch 2008366 - E 200.7 (4.4)</b>										
<b>Blank (2008366-BLK1)</b>				Prepared & Analyzed: 09/01/2020						
Boron	ND	0.10	mg/L							
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Potassium	ND	5.0	mg/L							
Sodium	ND	5.0	mg/L							
Zinc	ND	0.040	mg/L							
<b>LCS (2008366-BS1)</b>				Prepared & Analyzed: 09/01/2020						
Boron	1.0	0.10	mg/L	1.000		103	85-115			
Calcium	10	4.0	mg/L	10.00		100	85-115			
Iron	0.99	0.30	mg/L	1.000		99	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
Potassium	9.9	5.0	mg/L	10.00		99	85-115			
Sodium	10	5.0	mg/L	10.00		101	85-115			
Zinc	0.50	0.040	mg/L	0.5000		100	85-115			

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**QC Summary**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 2008366 - E 200.7 (4.4)</b>										
<b>LCS Dup (2008366-BSD1)</b>				Prepared & Analyzed: 09/01/2020						
Boron	1.0	0.10	mg/L	1.000		103	85-115	0.03	20	
Calcium	10	4.0	mg/L	10.00		102	85-115	2	20	
Iron	1.0	0.30	mg/L	1.000		100	85-115	1	20	
Magnesium	10	3.0	mg/L	10.00		102	85-115	0.9	20	
Potassium	10	5.0	mg/L	10.00		101	85-115	2	20	
Sodium	9.9	5.0	mg/L	10.00		99	85-115	2	20	
Zinc	0.50	0.040	mg/L	0.5000		99	85-115	0.1	20	
<b>Matrix Spike (2008366-MS1)</b>				Source: 20H0734-01			Prepared & Analyzed: 09/01/2020			
Boron	1.2	0.10	mg/L	1.000	0.15	106	70-130			
Calcium	41	4.0	mg/L	10.00	33	83	70-130			
Iron	0.99	0.30	mg/L	1.000	0.019	97	70-130			
Magnesium	11	3.0	mg/L	10.00	1.4	99	70-130			
Potassium	11	5.0	mg/L	10.00	0.88	96	70-130			
Sodium	84	25	mg/L	10.00	75	82	70-130			
Zinc	0.55	0.040	mg/L	0.5000	ND	110	70-130			
<b>Blank (2008368-BLK1)</b>				Prepared & Analyzed: 08/31/2020						
Aluminum	ND	0.0400	mg/L							
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							
Cobalt	ND	0.00025	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							

**Client:** Arizona Minerals Inc.  
**Project:** Groundwater  
**Work Order:** 20H0734  
**Date Received:** 08/28/2020

**QC Summary**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 2008368 - E 200.8 (5.4)</b>										
<b>LCS (2008368-BS1)</b>				Prepared & Analyzed: 08/31/2020						
Aluminum	0.0994	0.0400	mg/L	0.1000		99	85-115			
Antimony	0.048	0.00050	mg/L	0.05000		95	85-115			
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115			
Barium	0.048	0.00050	mg/L	0.05000		95	85-115			
Beryllium	0.048	0.00025	mg/L	0.05000		95	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		97	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		101	85-115			
Cobalt	0.051	0.00025	mg/L	0.05000		101	85-115			
Copper	0.049	0.00050	mg/L	0.05000		97	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Manganese	0.051	0.00025	mg/L	0.05000		102	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		101	85-115			
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115			
Silver	0.048	0.00050	mg/L	0.05000		97	85-115			
Thallium	0.045	0.00050	mg/L	0.05000		90	85-115			
Zinc	0.097	0.040	mg/L	0.1000		97	85-115			
<b>LCS Dup (2008368-BSD1)</b>				Prepared & Analyzed: 08/31/2020						
Aluminum	0.0995	0.0400	mg/L	0.1000		99	85-115	0.01	20	
Antimony	0.048	0.00050	mg/L	0.05000		95	85-115	0.02	20	
Arsenic	0.048	0.00050	mg/L	0.05000		97	85-115	0.2	20	
Barium	0.047	0.00050	mg/L	0.05000		94	85-115	1	20	
Beryllium	0.048	0.00025	mg/L	0.05000		95	85-115	0.4	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	1	20	
Chromium	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Cobalt	0.050	0.00025	mg/L	0.05000		100	85-115	1	20	
Copper	0.049	0.00050	mg/L	0.05000		97	85-115	0.1	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Manganese	0.049	0.00025	mg/L	0.05000		99	85-115	3	20	
Nickel	0.050	0.00050	mg/L	0.05000		99	85-115	2	20	
Selenium	0.050	0.0025	mg/L	0.05000		99	85-115	0.9	20	
Silver	0.048	0.00050	mg/L	0.05000		96	85-115	0.3	20	
Thallium	0.046	0.00050	mg/L	0.05000		92	85-115	2	20	
Zinc	0.095	0.040	mg/L	0.1000		95	85-115	2	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
<b>Batch 2008368 - E 200.8 (5.4)</b>										
<b>Matrix Spike (2008368-MS1)</b>		<b>Source: 20H0678-02</b>			<b>Prepared &amp; Analyzed: 08/31/2020</b>					
Aluminum	0.118	0.200	mg/L	0.1000	ND	118	70-130			
Antimony	0.053	0.0025	mg/L	0.05000	0.00047	105	70-130			
Arsenic	0.054	0.0025	mg/L	0.05000	0.00071	106	70-130			
Barium	0.069	0.0025	mg/L	0.05000	0.016	106	70-130			
Beryllium	0.049	0.0013	mg/L	0.05000	ND	97	70-130			
Cadmium	0.074	0.0013	mg/L	0.05000	0.020	108	70-130			
Chromium	0.056	0.0025	mg/L	0.05000	0.0011	110	70-130			
Cobalt	0.058	0.0013	mg/L	0.05000	0.0042	108	70-130			
Copper	0.056	0.0025	mg/L	0.05000	0.0068	98	70-130			
Lead	0.051	0.0025	mg/L	0.05000	ND	101	70-130			
Manganese	22	0.13	mg/L	0.05000	23	NR	70-130			M3
Nickel	0.079	0.0025	mg/L	0.05000	0.021	115	70-130			
Selenium	0.057	0.013	mg/L	0.05000	0.0029	109	70-130			
Silver	0.047	0.0025	mg/L	0.05000	ND	95	70-130			
Thallium	0.049	0.0025	mg/L	0.05000	ND	98	70-130			
Zinc	3.4	0.20	mg/L	0.1000	3.0	411	70-130			M3
<b>Batch 2009003 - E 200.7 (4.4)</b>										
<b>Blank (2009003-BLK1)</b>		<b>Prepared &amp; Analyzed: 09/04/2020</b>								
Silica	ND	0.20	mg/L							
<b>LCS (2009003-BS2)</b>		<b>Prepared &amp; Analyzed: 09/04/2020</b>								
Silica	11	0.20	mg/L	10.00		109	85-115			
<b>LCS Dup (2009003-BSD2)</b>		<b>Prepared &amp; Analyzed: 09/04/2020</b>								
Silica	10	0.20	mg/L	10.00		104	85-115	4	20	
<b>Matrix Spike (2009003-MS2)</b>		<b>Source: 20H0758-01</b>			<b>Prepared &amp; Analyzed: 09/04/2020</b>					
Silica	21	0.20	mg/L	10.00	9.5	115	70-130			
<b>Batch 2009012 - E200.8 (5.4)</b>										
<b>Blank (2009012-BLK1)</b>		<b>Prepared: 09/01/2020 Analyzed: 09/02/2020</b>								
Silver	ND	0.00050	mg/L							
<b>LCS (2009012-BS1)</b>		<b>Prepared: 09/01/2020 Analyzed: 09/02/2020</b>								
Silver	0.047	0.00050	mg/L	0.05000		94	85-115			
<b>LCS Dup (2009012-BSD1)</b>		<b>Prepared: 09/01/2020 Analyzed: 09/02/2020</b>								
Silver	0.047	0.00050	mg/L	0.05000		95	85-115	0.4	20	
<b>Matrix Spike (2009012-MS1)</b>		<b>Source: 20H0678-02</b>			<b>Prepared: 09/01/2020 Analyzed: 09/02/2020</b>					
Silver	0.046	0.0025	mg/L	0.05000	0.00012	91	70-130			
<b>Batch 2009025 - E 245.1</b>										
<b>Blank (2009025-BLK1)</b>		<b>Prepared &amp; Analyzed: 09/02/2020</b>								
Mercury	ND	0.0010	mg/L							
<b>LCS (2009025-BS1)</b>		<b>Prepared &amp; Analyzed: 09/02/2020</b>								
Mercury	0.0049	0.0010	mg/L	0.005000		97	85-115			

**Client:** Arizona Minerals Inc.  
**Project:** Groundwater  
**Work Order:** 20H0734  
**Date Received:** 08/28/2020

**QC Summary**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Qual
<b>Batch 2009025 - E 245.1</b>										
<b>LCS Dup (2009025-BSD1)</b>				Prepared & Analyzed: 09/02/2020						
Mercury	0.0045	0.0010	mg/L	0.005000		90	85-115	8	20	
<b>Matrix Spike (2009025-MS1)</b>				Source: 20H0758-01		Prepared & Analyzed: 09/02/2020				
Mercury	0.0051	0.0010	mg/L	0.005000	0.00010	100	70-130			
<b>Matrix Spike Dup (2009025-MSD1)</b>				Source: 20H0758-01		Prepared & Analyzed: 09/02/2020				
Mercury	0.0052	0.0010	mg/L	0.005000	0.00010	102	70-130	2	20	
<b>Batch 2009054 - E200.7 (4.4)</b>										
<b>Blank (2009054-BLK1)</b>				Prepared & Analyzed: 09/04/2020						
Silica	ND	0.20	mg/L							
<b>LCS (2009054-BS1)</b>				Prepared & Analyzed: 09/04/2020						
Silica	11	0.20	mg/L	10.00		105	85-115			
<b>LCS Dup (2009054-BSD1)</b>				Prepared & Analyzed: 09/04/2020						
Silica	11	0.20	mg/L	10.00		106	85-115	1	20	
<b>Matrix Spike (2009054-MS1)</b>				Source: 20H0734-01		Prepared & Analyzed: 09/04/2020				
Silica	14		mg/L	10.00	3.8	102	70-130			
<b>Batch 2009077 - E245.1</b>										
<b>Blank (2009077-BLK1)</b>				Prepared & Analyzed: 09/08/2020						
Mercury	ND	0.0010	mg/L							
<b>LCS (2009077-BS1)</b>				Prepared & Analyzed: 09/08/2020						
Mercury	0.0053	0.0010	mg/L	0.005000		105	85-115			
<b>LCS Dup (2009077-BSD1)</b>				Prepared & Analyzed: 09/08/2020						
Mercury	0.0053	0.0010	mg/L	0.005000		106	85-115	1	20	
<b>Matrix Spike (2009077-MS1)</b>				Source: 20I0003-01		Prepared & Analyzed: 09/08/2020				
Mercury	0.0051	0.0010	mg/L	0.005000	0.00017	98	70-130			
<b>Matrix Spike (2009077-MS2)</b>				Source: 20I0041-01		Prepared & Analyzed: 09/08/2020				
Mercury	0.0051	0.0010	mg/L	0.005000	0.00012	100	70-130			
<b>Matrix Spike Dup (2009077-MSD1)</b>				Source: 20I0003-01		Prepared & Analyzed: 09/08/2020				
Mercury	0.0051	0.0010	mg/L	0.005000	0.00017	99	70-130	1	20	
<b>Matrix Spike Dup (2009077-MSD2)</b>				Source: 20I0041-01		Prepared & Analyzed: 09/08/2020				
Mercury	0.0049	0.0010	mg/L	0.005000	0.00012	95	70-130	5	20	

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**QC Summary**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
<b>Batch 2008369 - SM2540 C</b>										
<b>Duplicate (2008369-DUP1)</b> Source: 20H0720-01 Prepared: 08/31/2020 Analyzed: 09/02/2020										
Total Dissolved Solids (Residue, Filterable)	1900	20	mg/L		1900			2	5	
<b>Duplicate (2008369-DUP2)</b> Source: 20H0720-02 Prepared: 08/31/2020 Analyzed: 09/02/2020										
Total Dissolved Solids (Residue, Filterable)	1900	20	mg/L		1800			2	5	
<b>Batch 2008376 - E180.1</b>										
<b>Duplicate (2008376-DUP1)</b> Source: 20H0734-01 Prepared & Analyzed: 08/31/2020										
Turbidity	0.95	0.10	NTU		0.90			5	10	
<b>Batch 2009036 - SM2540 D</b>										
<b>Duplicate (2009036-DUP1)</b> Source: 20I0005-01 Prepared: 09/03/2020 Analyzed: 09/04/2020										
Total Suspended Solids	2.0	10	mg/L		2.0			0	5	Q9
<b>Duplicate (2009036-DUP2)</b> Source: 20I0066-02 Prepared: 09/03/2020 Analyzed: 09/04/2020										
Total Suspended Solids	7.0	10	mg/L		2.0			111	5	Q9, R12
<b>Batch 2009049 - SM4500-NH3 B,C</b>										
<b>Blank (2009049-BLK1)</b> Prepared & Analyzed: 09/03/2020										
Nitrogen, Ammonia (As N)	ND	0.50	mg/L							
<b>LCS (2009049-BS1)</b> Prepared & Analyzed: 09/03/2020										
Nitrogen, Ammonia (As N)	5.1	0.50	mg/L	5.000		101	90-110			
<b>LCS Dup (2009049-BSD1)</b> Prepared & Analyzed: 09/03/2020										
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000		100	90-110	1	10	
<b>Matrix Spike (2009049-MS1)</b> Source: 20H0497-01 Prepared & Analyzed: 09/03/2020										
Nitrogen, Ammonia (As N)	5.4	0.50	mg/L	5.000	0.47	98	75-120			
<b>Matrix Spike (2009049-MS2)</b> Source: 20I0002-03 Prepared & Analyzed: 09/03/2020										
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000	0.11	97	75-120			
<b>Matrix Spike Dup (2009049-MSD1)</b> Source: 20H0497-01 Prepared & Analyzed: 09/03/2020										
Nitrogen, Ammonia (As N)	5.3	0.50	mg/L	5.000	0.47	97	75-120	0.8	20	
<b>Matrix Spike Dup (2009049-MSD2)</b> Source: 20I0002-03 Prepared & Analyzed: 09/03/2020										
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000	0.11	99	75-120	1	20	
<b>Batch 2009073 - SM2320B</b>										
<b>Blank (2009073-BLK1)</b> Prepared & Analyzed: 09/04/2020										
Alkalinity, Bicarbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Carbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Hydroxide (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Total (As CaCO3)	ND	2.0	mg/L							
<b>LCS (2009073-BS1)</b> Prepared & Analyzed: 09/04/2020										
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		98	90-110			

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**Project:** Groundwater  
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**Date Received:** 08/28/2020

**QC Summary**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 2009073 - SM2320B</b>										
<b>LCS Dup (2009073-BSD1)</b>				Prepared & Analyzed: 09/04/2020						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		97	90-110	2	10	
<b>Matrix Spike (2009073-MS1)</b>				Source: 20H0734-01		Prepared & Analyzed: 09/04/2020				
Alkalinity, Total (As CaCO3)	300	2.0	mg/L	250.0	62	94	70-130			
<b>Matrix Spike Dup (2009073-MSD1)</b>				Source: 20H0734-01		Prepared & Analyzed: 09/04/2020				
Alkalinity, Total (As CaCO3)	300	2.0	mg/L	250.0	62	94	70-130	0	10	

**Client:** Arizona Minerals Inc.  
**Project:** Groundwater  
**Work Order:** 20H0734  
**Date Received:** 08/28/2020

**QC Summary**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 2008364 - E300.0 (2.1)</b>										
<b>Blank (2008364-BLK1)</b> Prepared & Analyzed: 08/28/2020										
Chloride	ND	1.0	mg/L							
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							
<b>LCS (2008364-BS1)</b> Prepared & Analyzed: 08/28/2020										
Chloride	12	1.0	mg/L	12.50		96	90-110			
Fluoride	2.0	0.50	mg/L	2.000		102	90-110			
Nitrogen, Nitrate (As N)	4.6	0.50	mg/L	5.000		93	90-110			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500		91	90-110			
Sulfate	13	5.0	mg/L	12.50		104	90-110			
<b>LCS Dup (2008364-BSD1)</b> Prepared & Analyzed: 08/28/2020										
Chloride	12	1.0	mg/L	12.50		96	90-110	0.4	10	
Fluoride	2.0	0.50	mg/L	2.000		101	90-110	0.6	10	
Nitrogen, Nitrate (As N)	4.6	0.50	mg/L	5.000		92	90-110	0.6	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500		91	90-110	0.3	10	
Sulfate	13	5.0	mg/L	12.50		104	90-110	0.2	10	
<b>Matrix Spike (2008364-MS1)</b> Source: 20H0699-11 Prepared: 08/28/2020 Analyzed: 08/29/2020										
Chloride	23000	2000	mg/L	25000	ND	91	80-120			
Fluoride	5600	1000	mg/L	4000	1200	111	80-120			
Sulfate	34000	10000	mg/L	25000	26000	32	80-120			M2
<b>Matrix Spike (2008364-MS2)</b> Source: 20H0713-01 Prepared: 08/28/2020 Analyzed: 09/01/2020										
Nitrogen, Nitrate (As N)	9.4	0.50	mg/L	5.000	3.8	113	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	92	80-120			
Sulfate	18	5.0	mg/L	12.50	6.3	95	80-120			
<b>Matrix Spike Dup (2008364-MSD1)</b> Source: 20H0699-11 Prepared: 08/28/2020 Analyzed: 08/29/2020										
Chloride	23000	2000	mg/L	25000	ND	90	80-120	0.8	10	
Fluoride	5600	1000	mg/L	4000	1200	110	80-120	0.4	10	
Sulfate	34000	10000	mg/L	25000	26000	32	80-120	0.2	10	M2
<b>Matrix Spike Dup (2008364-MSD2)</b> Source: 20H0713-01 Prepared: 08/28/2020 Analyzed: 09/02/2020										
Nitrogen, Nitrate (As N)	9.4	0.50	mg/L	5.000	3.8	113	80-120	0.009	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	92	80-120	0.2	10	
Sulfate	18	5.0	mg/L	12.50	6.3	95	80-120	0.05	10	





## Groundwater Suite

LABORATORY				
Analyte		Total	Dissolved	Other
<b>Metals</b>				
Aluminum	✓	X	X	
Antimony	✓	X	X	
Arsenic	✓	X	X	
Barium	✓	X	X	
Beryllium	✓	X	X	
Boron	✓	X	X	
Cadmium	✓	X	X	
Chromium	✓	X	X	
Cobalt	✓	X	X	
Copper	✓	X	X	
Iron	✓	X	X	
Lead	✓	X	X	
Manganese	✓	X	X	
Mercury	✓	X	X	
Nickel	✓	X	X	
Selenium	✓	X	X	
Silver	✓	X	X	
Thallium	✓	X	X	
Zinc	✓	X	X	
<b>Major Cations</b>				
Ammonium	✓	X		
Calcium	✓	X	X	
Magnesium	✓	X	X	
Potassium	✓	X	X	
Sodium	✓	X	X	
Iron	✓	X	X	
Hardness	✓	X		
<b>Major Anions</b>				
Total Alkalinity	✓	X		
<b>Acidity</b>				
Chloride	✓	X	X	
Fluoride	✓	X	X	
Nitrate – Nitrite as N		X	X	
Nitrite - N	✓	X	X	
Silica	✓	X	X	
Sulfate	✓	X	X	
Sulfide				
<b>Parameters</b>				
Total Dissolved Solids	✓		X	
Total Suspended Solids	✓	X		

## ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix  
4625 East Cotton Ctr Blvd  
Suite 189  
Phoenix, AZ 85040  
Tel: (602)437-3340

Laboratory Job ID: 550-148224-1  
Client Project/Site: 20H0734

For:  
Turner Laboratories, Inc.  
2445 North Coyote Drive  
Suite 104  
Tucson, Arizona 85745

Attn: Elizabeth Kasik



Authorized for release by:  
9/10/2020 3:57:38 PM

Ken Baker, Project Manager II  
(602)659-7624  
[Ken.Baker@Eurofinset.com](mailto:Ken.Baker@Eurofinset.com)

### LINKS

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

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



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# Definitions/Glossary

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

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**Job ID: 550-148224-1**

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**Laboratory: Eurofins TestAmerica, Phoenix**

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**Narrative**

**Job Narrative**  
**550-148224-1**

**Comments**

No additional comments.

**Receipt**

The sample was received on 9/1/2020 9:25 AM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4° C.

**General Chemistry**

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

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# Sample Summary

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-148224-1	20H0734-01	Drinking Water	08/28/20 11:12	09/01/20 09:25	

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# Detection Summary

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

**Client Sample ID: 20H0734-01**

**Lab Sample ID: 550-148224-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.0025	E4	0.0050	0.0025	mg/L	1		SM 4500 CN E	Total/NA

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix



# Client Sample Results

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

**Client Sample ID: 20H0734-01**

**Lab Sample ID: 550-148224-1**

**Date Collected: 08/28/20 11:12**

**Matrix: Drinking Water**

**Date Received: 09/01/20 09:25**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cyanide, Total</b>	<b>0.0025</b>	<b>E4</b>	0.0050	0.0025	mg/L		09/10/20 10:49	09/10/20 13:22	1
Cyanide, Weak Acid Dissociable	ND	E8	0.025	0.013	mg/L		09/09/20 09:39	09/10/20 11:41	1

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# QC Sample Results

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

## Method: SM 4500 CN E - Cyanide, Total (Low Level)

Lab Sample ID: MB 440-623937/1-A  
Matrix: Water  
Analysis Batch: 623965

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 623937

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	E8	0.0050	0.0025	mg/L		09/10/20 10:49	09/10/20 13:22	1

Lab Sample ID: LCS 440-623937/2-A  
Matrix: Water  
Analysis Batch: 623965

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 623937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0950		mg/L		95	80 - 120

Lab Sample ID: LCSD 440-623937/3-A  
Matrix: Water  
Analysis Batch: 623965

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 623937

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.100	0.0956		mg/L		96	80 - 120	1	20

Lab Sample ID: 550-148224-1 MS  
Matrix: Drinking Water  
Analysis Batch: 623965

Client Sample ID: 20H0734-01  
Prep Type: Total/NA  
Prep Batch: 623937

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0025	E4	0.100	0.103		mg/L		100	75 - 125

Lab Sample ID: 550-148224-1 MSD  
Matrix: Drinking Water  
Analysis Batch: 623965

Client Sample ID: 20H0734-01  
Prep Type: Total/NA  
Prep Batch: 623937

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0025	E4	0.100	0.101		mg/L		98	75 - 125	2	20

## Method: SM 4500 CN I - Cyanide, Weak Acid Dissociable

Lab Sample ID: MB 440-623754/1-A  
Matrix: Water  
Analysis Batch: 623946

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 623754

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND	E8	0.025	0.013	mg/L		09/09/20 09:39	09/10/20 11:41	1

Lab Sample ID: LCS 440-623754/2-A  
Matrix: Water  
Analysis Batch: 623946

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 623754

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Weak Acid Dissociable	0.200	0.195		mg/L		97	80 - 120

# QC Sample Results

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

## Method: SM 4500 CN I - Cyanide, Weak Acid Dissociable (Continued)

**Lab Sample ID: LCSD 440-623754/3-A**  
**Matrix: Water**  
**Analysis Batch: 623946**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 623754**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cyanide, Weak Acid Dissociable	0.200	0.194		mg/L		97	80 - 120	1	20

**Lab Sample ID: 550-148224-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 623946**

**Client Sample ID: 20H0734-01**  
**Prep Type: Total/NA**  
**Prep Batch: 623754**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cyanide, Weak Acid Dissociable	ND	E8	0.200	0.197		mg/L		99	75 - 125		

**Lab Sample ID: 550-148224-1 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 623946**

**Client Sample ID: 20H0734-01**  
**Prep Type: Total/NA**  
**Prep Batch: 623754**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cyanide, Weak Acid Dissociable	ND	E8	0.200	0.195		mg/L		97	75 - 125	1	20

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# QC Association Summary

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

## General Chemistry

### Prep Batch: 623754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-148224-1	20H0734-01	Total/NA	Drinking Water	SM 4500 CN I	
MB 440-623754/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 440-623754/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 440-623754/3-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
550-148224-1 MS	20H0734-01	Total/NA	Drinking Water	SM 4500 CN I	
550-148224-1 MSD	20H0734-01	Total/NA	Drinking Water	SM 4500 CN I	

### Prep Batch: 623937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-148224-1	20H0734-01	Total/NA	Drinking Water	Distill/CN	
MB 440-623937/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 440-623937/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 440-623937/3-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
550-148224-1 MS	20H0734-01	Total/NA	Drinking Water	Distill/CN	
550-148224-1 MSD	20H0734-01	Total/NA	Drinking Water	Distill/CN	

### Analysis Batch: 623946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-148224-1	20H0734-01	Total/NA	Drinking Water	SM 4500 CN I	623754
MB 440-623754/1-A	Method Blank	Total/NA	Water	SM 4500 CN I	623754
LCS 440-623754/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN I	623754
LCSD 440-623754/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 CN I	623754
550-148224-1 MS	20H0734-01	Total/NA	Drinking Water	SM 4500 CN I	623754
550-148224-1 MSD	20H0734-01	Total/NA	Drinking Water	SM 4500 CN I	623754

### Analysis Batch: 623965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-148224-1	20H0734-01	Total/NA	Drinking Water	SM 4500 CN E	623937
MB 440-623937/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	623937
LCS 440-623937/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	623937
LCSD 440-623937/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 CN E	623937
550-148224-1 MS	20H0734-01	Total/NA	Drinking Water	SM 4500 CN E	623937
550-148224-1 MSD	20H0734-01	Total/NA	Drinking Water	SM 4500 CN E	623937

# Lab Chronicle

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

**Client Sample ID: 20H0734-01**

**Lab Sample ID: 550-148224-1**

**Date Collected: 08/28/20 11:12**

**Matrix: Drinking Water**

**Date Received: 09/01/20 09:25**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	Distill/CN			623937	09/10/20 10:49	CKL	TAL IRV
Total/NA	Analysis	SM 4500 CN E		1	623965	09/10/20 13:22	CKL	TAL IRV
Total/NA	Prep	SM 4500 CN I			623754	09/09/20 09:39	CKL	TAL IRV
Total/NA	Analysis	SM 4500 CN I		1	623946	09/10/20 11:41	CKL	TAL IRV

**Laboratory References:**

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



# Accreditation/Certification Summary

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

## Laboratory: Eurofins Calscience Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Arizona	State	AZ0671	10-13-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
SM 4500 CN I	SM 4500 CN I	Drinking Water	Cyanide, Weak Acid Dissociable

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# Method Summary

Client: Turner Laboratories, Inc.  
Project/Site: 20H0734

Job ID: 550-148224-1

Method	Method Description	Protocol	Laboratory
SM 4500 CN E	Cyanide, Total (Low Level)	SM	TAL IRV
SM 4500 CN I	Cyanide, Weak Acid Dissociable	SM	TAL IRV
Distill/CN	Distillation, Cyanide	None	TAL IRV
SM 4500 CN I	Cyanide, Distillation for Weak Acid Dissociable	SM	TAL IRV

**Protocol References:**

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

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



SUBCONTRACT ORDER

148224

Turner Laboratories, Inc.  
20H0734

SENDING LABORATORY:

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

RECEIVING LABORATORY:

TestAmerica Phoenix  
4625 East Cotton Center Boulevard Suite 189  
Phoenix, AZ 85540  
Phone : (602) 437-3340  
Fax:  
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
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-01 Sample ID: 20H0734-01 Drinking Water	Sampled: 08/28/2020 11:12		
---	---------------------------	--	--

Cyanide WAD	09/11/2020 11:12		
Cyanide	09/11/2020 11:12		

Containers Supplied:

Cyanide  
Cyanide

550-148224 Chain of Custody



14°C  
UPS  
NO AIR

<i>[Signature]</i>	8/31/20	1600	UPS	08/31/20	1600
Released By	Date			Date	
<i>[Signature]</i>			<i>[Signature]</i>	9-1-20	09125
Released By	Date		Received By	Date	





# Login Sample Receipt Checklist

Client: Turner Laboratories, Inc.

Job Number: 550-148224-1

**Login Number: 148224**

**List Source: Eurofins TestAmerica, Phoenix**

**List Number: 1**

**Creator: Gravlin, Andrea**

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



# Login Sample Receipt Checklist

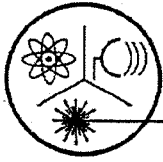
Client: Turner Laboratories, Inc.

Job Number: 550-148224-1

**Login Number: 148224**  
**List Number: 2**  
**Creator: Dolidze, Lado**

**List Source: Eurofins Irvine**  
**List Creation: 09/04/20 12:54 PM**

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



## 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 28, 2020  
Sample Received: September 01, 2020  
Analysis Completed: September 21, 2020

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Gross Beta Activity Method 900.0 (pCi/L)
20H0734-01	< 1.0	< 2.3

Date of Analysis	9/2/2020	9/15/2020
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9/21/2020

Jeremy Russell, BSE  
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 28, 2020      11:12      (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	9/2/2020	< 1.0	
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			
GammaRay HPGE		1 pCi/L	Radium 226	4020			
GammaRay HPGE		1 pCi/L	Radium 228	4030			

**\*\*\*LABORATORY INFORMATION\*\*\***

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

Specimen Number: RSE65037

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: 20H0734-01

Authorized Signature: \_\_\_\_\_

Date Public Water System Notified: \_\_\_\_\_

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 28, 2020      11:12      (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
900	4 mrem	4 pCi/L	Gross Beta	4100	9/15/2020	< 4 mrem	_____
906	20,000 pCi/L	1,000 pCi/L	Tritium	4102	_____	_____	_____
_____	_____	10 pCi/L	Strontium-89	4172	_____	_____	_____
_____	8 pCi/L	2 pCi/L	Strontium-90	4174	_____	_____	_____
_____	_____	1 pCi/L	Iodine-131	4264	_____	_____	_____
_____	_____	10 pCi/L	Cesium-134	4270	_____	_____	_____

**\*\*\*LABORATORY INFORMATION\*\*\***

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

Specimen Number: RSE65037 \_\_\_\_\_

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: 20H0734-01 \_\_\_\_\_

Authorized Signature:  \_\_\_\_\_

Date Public Water System Notified: \_\_\_\_\_

DWAR 6A: 11/2007

**SUBCONTRACT ORDER**

**Turner Laboratories, Inc.**

**20H0734**

**SENDING LABORATORY:**

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

**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: 20H0734-01 Drinking Water Sampled:08/28/2020 11:12			
Radiochemistry, Gross Alpha	02/24/2021 11:12		
Radiochemistry Gross Beta	02/24/2021 11:12		
Containers Supplied:			65037

Released By *[Signature]* Date *8/31/20 1600* Received By *UPS* Date *8/31/20 1600*  
Released By *Pat Flannery* Date *9-1-20 11:00* Received By *[Signature]* Date *9-1-20 11:00*