



August 24, 2020

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

TEL (802) 235-5563
FAX

RE: Storm Water

Work Order No.: 17H0588
Order Name: Hermosa Taylor
Deposit

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 08/15/2017 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: Storm Water
Work Order: 17H0588
Date Received: 08/15/2017

Order: Hermosa Taylor Deposit

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
17H0588-01	Alta	Storm Water	08/15/2017 0819

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0588
Date Received: 08/15/2017

Case Narrative

- 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.
- 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
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Turner Laboratories, Inc.

Date: 08/24/2020

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 17H0588
 Lab Sample ID: 17H0588-01

Client Sample ID: Alta
 Collection Date/Time: 08/15/2017 0819
 Matrix: Storm Water
 Order Name: Hermosa Taylor Deposit

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	150				mg/L	1	08/18/2017 1603	08/21/2017 1408	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	ND		0.30		mg/L	1	08/28/2017 1500	08/29/2017 1214	MH
Zinc	ND		0.040		mg/L	1	08/28/2017 1500	08/29/2017 1214	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	0.0010		0.00050		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Arsenic	0.0051		0.00050		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Beryllium	ND		0.00025		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Cadmium	ND		0.00025		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Chromium	ND		0.00050		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Copper	0.0027		0.00050		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Lead	ND		0.00050		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Manganese	0.048		0.00025		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Nickel	0.0021		0.00050		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Selenium	ND	0.00025	0.0025	E4	mg/L	1	08/28/2017 1500	08/28/2017 2011	MH
Silver	ND		0.00050		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
Thallium	ND		0.00050		mg/L	1	08/28/2017 1500	08/29/2017 1502	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000094	0.0010	E8	mg/L	1	08/28/2017 1230	08/28/2017 1841	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	31		4.0		mg/L	1	08/18/2017 1603	08/21/2017 1408	MH
Iron	21		0.30		mg/L	1	08/18/2017 1603	08/21/2017 1408	MH
Magnesium	18		3.0		mg/L	1	08/18/2017 1603	08/21/2017 1408	MH
Zinc	0.24		0.040		mg/L	1	08/18/2017 1603	08/21/2017 1408	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	0.0021		0.00050		mg/L	1	08/21/2017 1200	08/23/2017 1255	MH
Arsenic	0.044		0.0050		mg/L	10	08/21/2017 1200	08/22/2017 1626	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0588
Lab Sample ID: 17H0588-01

Client Sample ID: Alta
Collection Date/Time: 08/15/2017 0819
Matrix: Storm Water
Order Name: Hermosa Taylor Deposit

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Beryllium	0.00063		0.00025		mg/L	1	08/21/2017 1200	08/23/2017 1255	MH
Cadmium	0.00076		0.00025		mg/L	1	08/21/2017 1200	08/23/2017 1255	MH
Chromium	0.012		0.0050		mg/L	10	08/21/2017 1200	08/22/2017 1626	MH
Copper	0.050		0.0050		mg/L	10	08/21/2017 1200	08/22/2017 1626	MH
Lead	0.12		0.0050		mg/L	10	08/21/2017 1200	08/22/2017 1626	MH
Manganese	1.9		0.0025		mg/L	10	08/21/2017 1200	08/22/2017 1626	MH
Nickel	0.016		0.0050		mg/L	10	08/21/2017 1200	08/22/2017 1626	MH
Selenium	ND	0.00025	0.0025	E4	mg/L	1	08/21/2017 1200	08/23/2017 1255	MH
Silver	0.00093		0.00050		mg/L	1	08/21/2017 1200	08/23/2017 1255	MH
Thallium	ND		0.00050		mg/L	1	08/21/2017 1200	08/23/2017 1255	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	08/18/2017 1220	08/18/2017 1715	MH
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	310		10		mg/L	1	08/21/2017 1945	08/22/2017 1600	LH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0588
Date Received: 08/15/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Qual
Batch 1708256 - E245.1										
Blank (1708256-BLK1)				Prepared & Analyzed: 08/18/2017						
Mercury	ND	0.0010	mg/L							
LCS (1708256-BS1)				Prepared & Analyzed: 08/18/2017						
Mercury	0.0055	0.0010	mg/L	0.005000		110	85-115			
LCS Dup (1708256-BSD1)				Prepared & Analyzed: 08/18/2017						
Mercury	0.0056	0.0010	mg/L	0.005000		112	85-115	2	20	
Matrix Spike (1708256-MS1)				Source: 17H0609-01		Prepared & Analyzed: 08/18/2017				
Mercury	0.0054	0.0010	mg/L	0.005000	ND	108	85-115			
Matrix Spike (1708256-MS2)				Source: 17H0609-02		Prepared & Analyzed: 08/18/2017				
Mercury	0.0055	0.0010	mg/L	0.005000	ND	109	85-115			
Matrix Spike Dup (1708256-MSD1)				Source: 17H0609-01		Prepared & Analyzed: 08/18/2017				
Mercury	0.0054	0.0010	mg/L	0.005000	ND	108	85-115	0.07	20	
Matrix Spike Dup (1708256-MSD2)				Source: 17H0609-02		Prepared & Analyzed: 08/18/2017				
Mercury	0.0054	0.0010	mg/L	0.005000	ND	109	85-115	0.3	20	
Batch 1708257 - E200.7 (4.4)										
Blank (1708257-BLK1)				Prepared: 08/17/2017 Analyzed: 08/21/2017						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1708257-BS1)				Prepared: 08/17/2017 Analyzed: 08/21/2017						
Calcium	9.5	4.0	mg/L	10.00		95	85-115			
Iron	0.97	0.30	mg/L	1.000		97	85-115			
Magnesium	9.5	3.0	mg/L	10.00		95	85-115			
Zinc	0.46	0.040	mg/L	0.5000		93	85-115			
LCS Dup (1708257-BSD1)				Prepared: 08/17/2017 Analyzed: 08/21/2017						
Calcium	9.5	4.0	mg/L	10.00		95	85-115	0.1	20	
Iron	0.97	0.30	mg/L	1.000		97	85-115	0.2	20	
Magnesium	9.5	3.0	mg/L	10.00		95	85-115	0.3	20	
Zinc	0.46	0.040	mg/L	0.5000		93	85-115	0.2	20	
Matrix Spike (1708257-MS1)				Source: 17H0482-02		Prepared: 08/17/2017 Analyzed: 08/21/2017				
Calcium	210	4.0	mg/L	10.00	200	58	70-130			M3
Iron	1.6	0.30	mg/L	1.000	0.90	70	70-130			
Magnesium	49	3.0	mg/L	10.00	40	90	70-130			
Zinc	0.65	0.040	mg/L	0.5000	0.16	97	70-130			
Matrix Spike (1708257-MS2)				Source: 17H0550-03		Prepared: 08/17/2017 Analyzed: 08/21/2017				
Calcium	61	4.0	mg/L	10.00	51	104	70-130			
Iron	1.5	0.30	mg/L	1.000	0.44	105	70-130			
Magnesium	18	3.0	mg/L	10.00	8.2	97	70-130			
Zinc	0.64	0.040	mg/L	0.5000	0.18	93	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0588
Date Received: 08/15/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Qual
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Batch 1708280 - E200.8 (5.4)

Blank (1708280-BLK1)

Prepared: 08/21/2017 Analyzed: 08/22/2017

Antimony	ND	0.00050	mg/L							
Arsenic	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	0.0013	0.00025	mg/L							B7
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							

LCS (1708280-BS1)

Prepared: 08/21/2017 Analyzed: 08/22/2017

Antimony	0.048	0.00050	mg/L	0.05000		96	85-115			
Arsenic	0.049	0.00050	mg/L	0.05000		98	85-115			
Beryllium	0.048	0.00025	mg/L	0.05000		95	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		99	85-115			
Copper	0.048	0.00050	mg/L	0.05000		96	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Manganese	0.048	0.00025	mg/L	0.05000		95	85-115			
Nickel	0.047	0.00050	mg/L	0.05000		94	85-115			
Selenium	0.24	0.0025	mg/L	0.2500		96	85-115			
Silver	0.048	0.00050	mg/L	0.05000		95	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			

LCS Dup (1708280-BSD1)

Prepared: 08/21/2017 Analyzed: 08/22/2017

Antimony	0.049	0.00050	mg/L	0.05000		97	85-115	1	20	
Arsenic	0.049	0.00050	mg/L	0.05000		97	85-115	0.8	20	
Beryllium	0.049	0.00025	mg/L	0.05000		97	85-115	2	20	
Cadmium	0.050	0.00025	mg/L	0.05000		99	85-115	1	20	
Chromium	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Copper	0.047	0.00050	mg/L	0.05000		94	85-115	1	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	0.004	20	
Manganese	0.049	0.00025	mg/L	0.05000		97	85-115	2	20	
Nickel	0.049	0.00050	mg/L	0.05000		97	85-115	3	20	
Selenium	0.24	0.0025	mg/L	0.2500		96	85-115	0.2	20	
Silver	0.049	0.00050	mg/L	0.05000		97	85-115	2	20	
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115	0.7	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0588
Date Received: 08/15/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708280 - E200.8 (5.4)										
Matrix Spike (1708280-MS1)		Source: 17H0385-02RE1			Prepared: 08/21/2017 Analyzed: 08/22/2017					
Antimony	0.050	0.00050	mg/L	0.05000	0.00014	100	70-130			
Arsenic	0.061	0.00050	mg/L	0.05000	0.0096	104	70-130			
Beryllium	0.048	0.00025	mg/L	0.05000	ND	95	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	ND	99	70-130			
Chromium	0.070	0.00050	mg/L	0.05000	0.0079	123	70-130			
Copper	0.052	0.00050	mg/L	0.05000	0.0041	96	70-130			
Lead	0.053	0.00050	mg/L	0.05000	0.0024	102	70-130			
Manganese	0.062	0.00025	mg/L	0.05000	0.0012	122	70-130			
Nickel	0.063	0.00050	mg/L	0.05000	0.000050	125	70-130			
Selenium	0.24	0.0025	mg/L	0.2500	0.00043	98	70-130			
Silver	0.042	0.00050	mg/L	0.05000		84	70-130			
Thallium	0.049	0.00050	mg/L	0.05000	ND	98	70-130			
Batch 1708362 - E 245.1										
Blank (1708362-BLK1)		Prepared & Analyzed: 08/28/2017								
Mercury	ND	0.0010	mg/L							
LCS (1708362-BS1)		Prepared & Analyzed: 08/28/2017								
Mercury	0.0052	0.0010	mg/L	0.005000		103	85-115			
LCS Dup (1708362-BSD1)		Prepared & Analyzed: 08/28/2017								
Mercury	0.0052	0.0010	mg/L	0.005000		103	85-115	0.05	20	
Matrix Spike (1708362-MS1)		Source: 17H0675-01			Prepared: 08/28/2017 Analyzed: 08/29/2017					
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115			
Matrix Spike (1708362-MS2)		Source: 17H0675-02			Prepared & Analyzed: 08/28/2017					
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	85-115			
Matrix Spike Dup (1708362-MSD1)		Source: 17H0675-01			Prepared & Analyzed: 08/28/2017					
Mercury	0.0050	0.0010	mg/L	0.005000	ND	99	85-115	3	20	
Matrix Spike Dup (1708362-MSD2)		Source: 17H0675-02			Prepared & Analyzed: 08/28/2017					
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115	0.9	20	
Batch 1708364 - E 200.8 (5.4)										
Blank (1708364-BLK1)		Prepared: 08/28/2017 Analyzed: 08/29/2017								
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0588
Date Received: 08/15/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708364 - E 200.8 (5.4)										
LCS (1708364-BS1)				Prepared: 08/28/2017 Analyzed: 08/29/2017						
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		100	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	0.050	0.00025	mg/L	0.05000		101	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		103	85-115			
Selenium	0.25	0.0025	mg/L	0.2500		100	85-115			
Silver	0.050	0.00050	mg/L	0.05000		100	85-115			
Thallium	0.050	0.00050	mg/L	0.05000		99	85-115			
LCS Dup (1708364-BSD1)				Prepared: 08/28/2017 Analyzed: 08/29/2017						
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115	0.1	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.1	20	
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115	1	20	
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115	0.3	20	
Chromium	0.051	0.00050	mg/L	0.05000		101	85-115	0.7	20	
Copper	0.051	0.00050	mg/L	0.05000		101	85-115	0.1	20	
Lead	0.050	0.00050	mg/L	0.05000		99	85-115	0.5	20	
Manganese	0.051	0.00025	mg/L	0.05000		101	85-115	0.5	20	
Nickel	0.051	0.00050	mg/L	0.05000		103	85-115	0.05	20	
Selenium	0.25	0.0025	mg/L	0.2500		101	85-115	1	20	
Silver	0.050	0.00050	mg/L	0.05000		100	85-115	0.1	20	
Thallium	0.050	0.00050	mg/L	0.05000		99	85-115	0.01	20	
Matrix Spike (1708364-MS1)		Source: 17H0588-01		Prepared: 08/28/2017 Analyzed: 08/29/2017						
Antimony	0.050	0.00050	mg/L	0.05000	0.0010	98	70-130			
Arsenic	0.061	0.00050	mg/L	0.05000	0.0051	112	70-130			
Beryllium	0.047	0.00025	mg/L	0.05000	0.000015	93	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.000062	95	70-130			
Chromium	0.051	0.00050	mg/L	0.05000	0.00016	101	70-130			
Copper	0.048	0.00050	mg/L	0.05000	0.0027	91	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00020	99	70-130			
Manganese	0.099	0.00025	mg/L	0.05000	0.048	101	70-130			
Nickel	0.051	0.00050	mg/L	0.05000	0.0021	97	70-130			
Selenium	0.26	0.0025	mg/L	0.2500	0.00087	104	70-130			
Silver	0.043	0.00050	mg/L	0.05000	0.000025	87	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.000059	99	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0588
Date Received: 08/15/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch 1708364 - E 200.8 (5.4)

Matrix Spike (1708364-MS2)	Source: 17H0589-01			Prepared: 08/28/2017 Analyzed: 08/29/2017						
Antimony	0.051	0.00050	mg/L	0.05000	0.00063	100	70-130			
Arsenic	0.058	0.00050	mg/L	0.05000	0.0010	115	70-130			
Beryllium	0.046	0.00025	mg/L	0.05000	0.000039	92	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	0.00080	96	70-130			
Chromium	0.054	0.00050	mg/L	0.05000	ND	107	70-130			
Copper	0.050	0.00050	mg/L	0.05000	0.0059	89	70-130			
Lead	0.051	0.00050	mg/L	0.05000	0.00062	100	70-130			
Manganese	0.33	0.00025	mg/L	0.05000	0.27	107	70-130			
Nickel	0.056	0.00050	mg/L	0.05000	0.0049	102	70-130			
Selenium	0.26	0.0025	mg/L	0.2500	0.00091	105	70-130			
Silver	0.042	0.00050	mg/L	0.05000	0.000053	85	70-130			
Thallium	0.051	0.00050	mg/L	0.05000	0.00014	101	70-130			

Batch 1708369 - E 200.7 (4.4)

Blank (1708369-BLK1)	Prepared & Analyzed: 08/29/2017									
Iron	ND	0.30	mg/L							
Zinc	ND	0.040	mg/L							

LCS (1708369-BS1)	Prepared & Analyzed: 08/29/2017									
Iron	1.0	0.30	mg/L	1.000		102	85-115			
Zinc	0.51	0.040	mg/L	0.5000		102	85-115			

LCS Dup (1708369-BSD1)	Prepared & Analyzed: 08/29/2017									
Iron	1.0	0.30	mg/L	1.000		102	85-115	0.6	20	
Zinc	0.51	0.040	mg/L	0.5000		102	85-115	0.1	20	

Matrix Spike (1708369-MS1)	Source: 17H0588-02			Prepared & Analyzed: 08/29/2017						
Iron	1.2	0.30	mg/L	1.000	0.062	110	70-130			
Zinc	0.60	0.040	mg/L	0.5000	0.094	101	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0588
Date Received: 08/15/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708252 - SM2540 D										
Duplicate (1708252-DUP1)		Source: 17H0482-01			Prepared: 08/21/2017 Analyzed: 08/22/2017					
Total Suspended Solids	1.0	10	mg/L		1.0			0	5	
Duplicate (1708252-DUP2)		Source: 17H0588-01			Prepared: 08/21/2017 Analyzed: 08/22/2017					
Total Suspended Solids	310	10	mg/L		310			0.6	5	

STORMWATER SAMPLE FORM

Field Staff Sheila Oliver Company AMI Weather clear sky
 Notes _____ Rainfall (inches) ALTA - .7
 _____ Trench - 1.00

Sample Location	Sample ID	Flow (gpm)	Sample Date	Time Sampled	Temp °C	pH	Specific Conductivity (µs/cm)	Turbidity (NTU)	Appearance of Water: (color, odor, etc) or other notes
ALTA	8-15-17		8-15-17	8:19	22.1°C	7.44	320.8	1100	murky, light brown
outfall 1	8-15-17		8-15-17	8:40	21.1°C	6.86	129.3	976.2	murky, brown

Sample Laboratory Information

Container Volume	No of Containers	Filtered Y/N	Preservative	Lab Analysis	Meter:
ALTA -					pH: YSI professional series Turbidity: HF scientific, inc. MICROTPW
500ml	1	No	DISTSS		
250ml	1	No	Total		Calibration Date: Turbidity - 8-15-17 pH - 8-15-17
Outfall 1					
500ml	1	No	DISTSS		
250ml	1	No	Total		

Dissolved Metals - Filter (0.45 micron filter) prior to placing into 250 ml container with nitric acid preservative.
 Total Metals - 250 ml container with nitric acid preservative.
 TSS, Hardness (Calcium, Magnesium) - 250 ml container with NO preservative.

Stormwater Sampling Parameters

Analyte	ICP/MS	Total	Dissolved	Analytical Method	MDL
pH ¹	Field				
Hardness (CaCO ₃ ; calc. from Ca, Mg)		X		E200.7	
TSS		X		SM2540	
Antimony	X	X	X	E200.8	0.000029
Arsenic	X	X	X	E200.8	0.000034
Beryllium	X	X	X	E200.8	0.000021
Cadmium	X	X	X	E200.8	0.000018
Chromium	X	X	X	E200.8	0.000036
Copper	X	X	X	E200.8	0.000083
Iron	X	X	X	E200.7	0.0044
Lead	X	X	X	E200.8	0.000031
Manganese	X	X	X	E200.8	0.000034
Mercury	X	X	X	E245.1	0.000094
Nickel	X	X	X	E200.8	0.000083
Selenium	X	X	X	E200.8	0.00016
Silver	X	X	X	E200.8	0.000029
Thallium	X	X	X	E200.8	0.000028
Zinc	X	X	X	E200.7	0.0065
¹ pH, Temp, Cond, and Turbidty are Field Measurements					



July 17, 2017

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

TEL (802) 235-5563
FAX

Work Order No.: 17G0035

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 07/03/2017 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: Storm Water
Work Order: 17G0035
Date Received: 07/03/2017

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
17G0035-01	Alta	Storm Water	07/03/2017 0935

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0035
Date Received: 07/03/2017

Case Narrative

- 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.
- M7 Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.
- R13 MS/MSD RPD exceeded method acceptance limit. Matrix spike recovery was outside acceptance criteria. Batch precision and accuracy were demonstrated.

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: Storm Water
Work Order: 17G0035
Lab Sample ID: 17G0035-01

Client Sample ID: Alta
Collection Date/Time: 07/03/2017 0935
Matrix: Storm Water

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

Hardness, Calcium/Magnesium (As CaCO3)	330				mg/L	1	07/05/2017 1005	07/06/2017 1221	MH
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ICP Dissolved Metals-E 200.7 (4.4)

Iron	ND		0.30		mg/L	1	07/10/2017 1640	07/13/2017 1308	MH
Zinc	ND		0.040		mg/L	1	07/10/2017 1640	07/13/2017 1308	MH

ICP/MS Dissolved Metals-E 200.8 (5.4)

Antimony	0.0012		0.00050		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Arsenic	0.0055		0.00050		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Beryllium	ND		0.00025		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Cadmium	ND		0.00025		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Chromium	0.00053		0.00050		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Copper	0.0093		0.00050		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Lead	ND		0.00050		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Manganese	0.73		0.0025		mg/L	10	07/10/2017 1640	07/12/2017 1638	MH
Nickel	0.0021		0.00050		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Selenium	0.0010	0.00025	0.0025	E4	mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Silver	ND		0.00050		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH
Thallium	ND		0.00050		mg/L	1	07/10/2017 1640	07/12/2017 1726	MH

CVAA Dissolved Mercury-E 245.1

Mercury	0.00023	0.000094	0.0010	E4	mg/L	1	07/11/2017 1045	07/11/2017 1659	MH
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ICP Total Metals-E200.7 (4.4)

Calcium	81		4.0		mg/L	1	07/05/2017 1005	07/06/2017 1221	MH
Iron	12		0.30		mg/L	1	07/05/2017 1005	07/06/2017 1221	MH
Magnesium	31		3.0		mg/L	1	07/05/2017 1005	07/06/2017 1221	MH
Zinc	0.16		0.040		mg/L	1	07/05/2017 1005	07/06/2017 1221	MH

ICP/MS Total Metals-E200.8 (5.4)

Antimony	0.0025		0.00050		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Arsenic	0.026		0.00050		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0035
Lab Sample ID: 17G0035-01

Client Sample ID: Alta
Collection Date/Time: 07/03/2017 0935
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Beryllium	0.00033		0.00025		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Cadmium	0.00070		0.00025		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Chromium	0.0065		0.00050		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Copper	0.034		0.00050		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Lead	0.066		0.00050		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Manganese	2.0		0.0025		mg/L	10	07/10/2017 1020	07/11/2017 1227	MH
Nickel	0.0083		0.00050		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Selenium	0.0010	0.00025	0.0025	E4	mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Silver	0.00082		0.00050		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
Thallium	ND		0.00050		mg/L	1	07/10/2017 1020	07/12/2017 1444	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	07/14/2017 1025	07/14/2017 1531	MH
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	990		10		mg/L	1	07/05/2017 0815	07/07/2017 1215	LH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0035
Date Received: 07/03/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch 1707034 - E200.7 (4.4)

Blank (1707034-BLK1)

Prepared: 07/05/2017 Analyzed: 07/06/2017

Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							

LCS (1707034-BS1)

Prepared: 07/05/2017 Analyzed: 07/06/2017

Calcium	10	4.0	mg/L	10.00		101	85-115			
Iron	1.0	0.30	mg/L	1.000		103	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
Zinc	0.50	0.040	mg/L	0.5000		100	85-115			

LCS Dup (1707034-BSD1)

Prepared: 07/05/2017 Analyzed: 07/06/2017

Calcium	10	4.0	mg/L	10.00		101	85-115	0.3	20	
Iron	1.0	0.30	mg/L	1.000		103	85-115	0.08	20	
Magnesium	10	3.0	mg/L	10.00		101	85-115	0.05	20	
Zinc	0.50	0.040	mg/L	0.5000		100	85-115	0.3	20	

Matrix Spike (1707034-MS1)

Source: 17F0821-01

Prepared: 07/05/2017 Analyzed: 07/06/2017

Calcium	200	4.0	mg/L	10.00	190	80	70-130			
Iron	1.6	0.30	mg/L	1.000	0.60	105	70-130			
Magnesium	31	3.0	mg/L	10.00	22	99	70-130			
Zinc	0.57	0.040	mg/L	0.5000	0.041	105	70-130			

Batch 1707074 - E200.8 (5.4)

Blank (1707074-BLK1)

Prepared: 07/10/2017 Analyzed: 07/11/2017

Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0035
Date Received: 07/03/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1707074 - E200.8 (5.4)										
LCS (1707074-BS1)				Prepared: 07/10/2017 Analyzed: 07/11/2017						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.049	0.00025	mg/L	0.05000		98	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.049	0.00050	mg/L	0.05000		99	85-115			
Copper	0.050	0.00050	mg/L	0.05000		100	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Manganese	0.049	0.00025	mg/L	0.05000		98	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		100	85-115			
Selenium	0.25	0.0025	mg/L	0.2500		101	85-115			
Silver	0.050	0.00050	mg/L	0.05000		99	85-115			
Thallium	0.050	0.00050	mg/L	0.05000		99	85-115			
LCS Dup (1707074-BSD1)										
				Prepared: 07/10/2017 Analyzed: 07/11/2017						
Antimony	0.048	0.00050	mg/L	0.05000		96	85-115	2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	2	20	
Beryllium	0.049	0.00025	mg/L	0.05000		98	85-115	0.8	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	2	20	
Chromium	0.049	0.00050	mg/L	0.05000		97	85-115	2	20	
Copper	0.048	0.00050	mg/L	0.05000		96	85-115	3	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Manganese	0.048	0.00025	mg/L	0.05000		96	85-115	2	20	
Nickel	0.049	0.00050	mg/L	0.05000		97	85-115	2	20	
Selenium	0.25	0.0025	mg/L	0.2500		100	85-115	2	20	
Silver	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Thallium	0.049	0.00050	mg/L	0.05000		97	85-115	2	20	
Matrix Spike (1707074-MS1)										
				Source: 17G0123-03			Prepared: 07/10/2017 Analyzed: 07/11/2017			
Antimony	0.051	0.0050	mg/L	0.05000	0.00036	103	70-130			
Arsenic	0.055	0.0050	mg/L	0.05000	0.0015	106	70-130			
Beryllium	0.053	0.0025	mg/L	0.05000	ND	105	70-130			
Cadmium	0.053	0.0025	mg/L	0.05000	0.00010	106	70-130			
Chromium	0.055	0.0050	mg/L	0.05000	0.0031	105	70-130			
Copper	0.28	0.0050	mg/L	0.05000	0.28	13	70-130			M3
Lead	0.065	0.0050	mg/L	0.05000	0.013	103	70-130			
Manganese	0.087	0.0025	mg/L	0.05000	0.035	103	70-130			
Nickel	0.060	0.0050	mg/L	0.05000	0.011	97	70-130			
Selenium	0.25	0.025	mg/L	0.2500	ND	102	70-130			
Silver	0.047	0.0050	mg/L	0.05000	0.00011	94	70-130			
Thallium	0.051	0.0050	mg/L	0.05000	0.000071	103	70-130			
Batch 1707088 - E 245.1										
Blank (1707088-BLK1)				Prepared & Analyzed: 07/11/2017						
Mercury	ND	0.0010	mg/L							
LCS (1707088-BS1)				Prepared & Analyzed: 07/11/2017						
Mercury	0.0051	0.0010	mg/L	0.005000		102	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0035
Date Received: 07/03/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1707088 - E 245.1										
LCS Dup (1707088-BSD1)				Prepared & Analyzed: 07/11/2017						
Mercury	0.0051	0.0010	mg/L	0.005000		101	85-115	1	20	
Matrix Spike (1707088-MS1)				Source: 17F0814-01		Prepared & Analyzed: 07/11/2017				
Mercury	0.0030	0.0010	mg/L	0.005000	ND	59	85-115			M7
Matrix Spike Dup (1707088-MSD1)				Source: 17F0814-01		Prepared & Analyzed: 07/11/2017				
Mercury	0.0050	0.0010	mg/L	0.005000	ND	100	85-115	52	20	R13
Batch 1707094 - E 200.8 (5.4)										
Blank (1707094-BLK1)				Prepared & Analyzed: 07/12/2017						
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1707094-BS1)				Prepared & Analyzed: 07/12/2017						
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.052	0.00025	mg/L	0.05000		104	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		100	85-115			
Copper	0.050	0.00050	mg/L	0.05000		99	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Manganese	0.050	0.00025	mg/L	0.05000		101	85-115			
Nickel	0.047	0.00050	mg/L	0.05000		95	85-115			
Selenium	0.25	0.0025	mg/L	0.2500		100	85-115			
Silver	0.049	0.00050	mg/L	0.05000		98	85-115			
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0035
Date Received: 07/03/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1707094 - E 200.8 (5.4)										
LCS Dup (1707094-BSD1)				Prepared & Analyzed: 07/12/2017						
Antimony	0.048	0.00050	mg/L	0.05000		96	85-115	4	20	
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	0.06	20	
Beryllium	0.050	0.00025	mg/L	0.05000		101	85-115	4	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	4	20	
Chromium	0.048	0.00050	mg/L	0.05000		96	85-115	4	20	
Copper	0.049	0.00050	mg/L	0.05000		99	85-115	0.6	20	
Lead	0.048	0.00050	mg/L	0.05000		95	85-115	5	20	
Manganese	0.048	0.00025	mg/L	0.05000		96	85-115	5	20	
Nickel	0.045	0.00050	mg/L	0.05000		90	85-115	6	20	
Selenium	0.25	0.0025	mg/L	0.2500		102	85-115	2	20	
Silver	0.048	0.00050	mg/L	0.05000		95	85-115	3	20	
Thallium	0.048	0.00050	mg/L	0.05000		96	85-115	5	20	
Matrix Spike (1707094-MS1)				Source: 17G0186-01		Prepared & Analyzed: 07/12/2017				
Antimony	0.050	0.00050	mg/L	0.05000	0.00029	99	70-130			
Arsenic	0.069	0.00050	mg/L	0.05000	0.017	104	70-130			
Beryllium	0.046	0.0013	mg/L	0.05000	ND	92	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	ND	96	70-130			
Chromium	0.058	0.00050	mg/L	0.05000	0.0043	108	70-130			
Copper	0.046	0.00050	mg/L	0.05000	0.0018	88	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00011	99	70-130			
Manganese	0.072	0.00025	mg/L	0.05000	0.017	109	70-130			
Nickel	0.048	0.00050	mg/L	0.05000	ND	97	70-130			
Selenium	0.28	0.0025	mg/L	0.2500	0.0034	109	70-130			
Silver	0.042	0.00050	mg/L	0.05000	0.000058	83	70-130			
Thallium	0.049	0.00050	mg/L	0.05000	ND	97	70-130			
Batch 1707111 - E 200.7 (4.4)										
Blank (1707111-BLK1)				Prepared & Analyzed: 07/13/2017						
Iron	ND	0.30	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1707111-BS1)				Prepared & Analyzed: 07/13/2017						
Iron	1.0	0.30	mg/L	1.000		100	85-115			
Zinc	0.48	0.040	mg/L	0.5000		96	85-115			
LCS Dup (1707111-BSD1)				Prepared & Analyzed: 07/13/2017						
Iron	1.0	0.30	mg/L	1.000		100	85-115	0.2	20	
Zinc	0.48	0.040	mg/L	0.5000		97	85-115	1	20	
Matrix Spike (1707111-MS1)				Source: 17G0186-02		Prepared & Analyzed: 07/13/2017				
Iron	1.0	0.30	mg/L	1.000	ND	104	70-130			
Zinc	0.54	0.040	mg/L	0.5000	ND	108	70-130			
Batch 1707138 - E245.1										
Blank (1707138-BLK1)				Prepared & Analyzed: 07/14/2017						
Mercury	ND	0.0010	mg/L							

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 17G0035
 Date Received: 07/03/2017

QC Summary

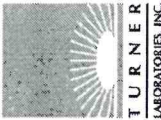
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1707138 - E245.1										
LCS (1707138-BS1)				Prepared & Analyzed: 07/14/2017						
Mercury	0.0052	0.0010	mg/L	0.005000		104	85-115			
LCS Dup (1707138-BS1)				Prepared & Analyzed: 07/14/2017						
Mercury	0.0053	0.0010	mg/L	0.005000		106	85-115	3	20	
Matrix Spike (1707138-MS1)				Source: 17G0277-01		Prepared & Analyzed: 07/14/2017				
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	85-115			
Matrix Spike (1707138-MS2)				Source: 17G0370-01		Prepared & Analyzed: 07/14/2017				
Mercury	0.0052	0.0010	mg/L	0.005000	ND	105	85-115			
Matrix Spike Dup (1707138-MSD1)				Source: 17G0277-01		Prepared & Analyzed: 07/14/2017				
Mercury	0.0054	0.0010	mg/L	0.005000	ND	108	85-115	5	20	
Matrix Spike Dup (1707138-MSD2)				Source: 17G0370-01		Prepared & Analyzed: 07/14/2017				
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115	2	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0035
Date Received: 07/03/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1707022 - SM2540 D										
Duplicate (1707022-DUP1)		Source: 17F0815-02			Prepared: 07/05/2017 Analyzed: 07/07/2017					
Total Suspended Solids	2.0	10	mg/L		1.0			67	5	

2445 N. Coyote Drive, Suite 104
 Tucson, Arizona 85745
 (520) 882-5880
 Fax: (520) 882-9788
 www.turnerlabs.com



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 1760035 DATE 7/31/17 PAGE 1 OF 3

PROJECT NAME <u>Hermosa Taylor</u> # _____ CONTACT NAME : <u>Johnny Pappas</u> COMPANY NAME : <u>AZ Minerals Inc.</u> ADDRESS : <u>3845 N Business Dr. Suite 115</u> CITY <u>Tucson</u> STATE <u>AZ</u> ZIP CODE <u>85705</u> PHONE <u>520-458-1300</u> FAX _____ SAMPLER'S SIGNATURE _____	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX NUMBER OF CONTAINERS ← See Attached	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: _____ SPECIAL INSTRUCTIONS/COMMENTS: Compliance Analysis: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Custody Seals <input type="checkbox"/> Preservation Confirmation <input type="checkbox"/> ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Container Intact <input checked="" type="checkbox"/> Appropriate Head Space <input checked="" type="checkbox"/> Mail ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> COC/Labels Agree <input checked="" type="checkbox"/> Received Within Hold Time <input type="checkbox"/>
SAMPLE I.D. DATE TIME LAB I.D. SAMPLE MATRIX* <u>Alfa</u> <u>7/31/17</u> <u>9:35AM</u> _____ <u>DIS</u> <u>Alfa</u> <u>7/31/17</u> <u>9:35AM</u> _____ <u>Total</u> <u>Alfa</u> <u>7/31/17</u> <u>9:35AM</u> _____ <u>TSS</u>		
1. RELINQUISHED BY: Signature <u>Andrew Cunningham</u> Printed Name <u>AZ Minerals Inc.</u> Firm <u>1817 9:35am</u> Date/Time _____	2. RECEIVED BY: Signature _____ Printed Name _____ Firm _____ Date/Time _____ * Working Days _____ Standard (approx. 10 days)* Next day _____ 2 Day _____ 5 Day* Email Preliminary Results To: _____	TURNAROUND 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: _____ SAMPLE RECEIPT: Total Containers <u>2</u> Temperature <u>6.3</u> <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
3. RELINQUISHED BY: Signature <u>Andrew Cunningham</u> Printed Name <u>AZ Minerals Inc.</u> Firm _____ Date/Time <u>7/31/17 14:24</u>	4. RECEIVED BY: Signature <u>Joseph C</u> Printed Name <u>TURNER LABORATORIES, INC.</u> Firm <u>1817 14:24</u> Date/Time _____	* LEGEND DW = DRINKING WATER GW = GROUNDWATER SD = SOLID SG = SLUDGE SL = SOIL ST = STORMWATER WW = WASTEWATER

STORMWATER SAMPLE FORM

Field Staff Andrew Cunningham

Company A2 minerals

Weather overcast

Notes _____

Rainfall (inches) 6/16"

Sample Location	Sample ID	Flow (gpm)	Sample Date	Time Sampled	Temp °C	pH	Specific Conductivity (µs/cm)	Turbidity (NTU)	Appearance of Water: (color, odor, etc) or other notes
<u>Alta</u>	<u>7/3/17</u>	<u>---</u>	<u>7/3/17</u>	<u>9:22 am</u>	<u>28.6</u>	<u>6.77</u>	<u>657</u>	<u>305.2</u>	<u>discolored, brownish red no odor, murky</u>

Sample Laboratory Information

Container Volume	No of Containers	Filtered Y/N	Preservative	Lab Analysis	Meter:
<u>250ml</u>	<u>1</u>	<u>N</u>	<u>Y</u>	<u>Total</u>	pH: <u>geotech VSI professional Plus</u> Turbidity: <u>MICROTPN 60692</u> Calibration Date: <u>pH: 7/3/17</u> <u>Turb: 7/3/17</u>
<u>500ml</u>	<u>1</u>	<u>N</u>	<u>N</u>	<u>DIS & TSS</u>	

Dissolved Metals - Filter (0.45 micron filter) prior to placing into 250 ml container with nitric acid preservative.
 Total Metals - 250 ml container with nitric acid preservative.
 TSS, Hardness (Calcium, Magnesium) - 250 ml container with NO preservative.

Stormwater Sampling Parameters					
Analyte	ICP/MS	Total	Dissolved	Analytical Method	MDL
pH	Field				
Hardness (CaCO ₃ ; calc. from Ca, Mg)		X		E200.7	
TSS		X		SM2540	
Antimony	X	X	X	E200.8	0.000029
Arsenic	X	X	X	E200.8	0.000034
Beryllium	X	X	X	E200.8	0.000021
Cadmium	X	X	X	E200.8	0.000018
Chromium	X	X	X	E200.8	0.000036
Copper	X	X	X	E200.8	0.000083
Iron	X	X	X	E200.7	0.0044
Lead	X	X	X	E200.8	0.000031
Manganese	X	X	X	E200.8	0.000034
Mercury	X	X	X	E245.1	0.000094
Nickel	X	X	X	E200.8	0.000083
Selenium	X	X	X	E200.8	0.00016
Silver	X	X	X	E200.8	0.000029
Thallium	X	X	X	E200.8	0.000028
Zinc	X	X	X	E200.7	0.0065

pH, Temp, Cond, and Turbidity are Field Measurements



March 16, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18B0450

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 02/15/2018 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: Storm Water
Work Order: 18B0450
Date Received: 02/15/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18B0450-01	Alta Outfall	Storm Water	02/15/2018 0905
18B0450-02	Outfall 2	Storm Water	02/15/2018 1000

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Date Received: 02/15/2018

Case Narrative

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.

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: Storm Water
Work Order: 18B0450
Lab Sample ID: 18B0450-01

Client Sample ID: Alta Outfall
Collection Date/Time: 02/15/2018 0905
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	320				mg/L	1	02/23/2018 1400	03/09/2018 1831	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	ND		0.30		mg/L	1	02/16/2018 1640	03/12/2018 1235	MH
Zinc	ND		0.040		mg/L	1	02/16/2018 1640	03/12/2018 1236	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	0.00055		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Arsenic	0.013		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Beryllium	ND		0.00025		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Cadmium	ND		0.00025		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Chromium	ND		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Copper	0.0032		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Lead	ND		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Manganese	0.0053		0.00025		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Nickel	0.0010		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Selenium	0.00074	0.00025	0.0025	E4	mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Silver	ND		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
Thallium	ND		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1321	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	02/22/2018 1300	02/22/2018 1407	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	47		4.0		mg/L	1	02/23/2018 1400	03/09/2018 1831	MH
Iron	110		3.0		mg/L	10	02/23/2018 1400	03/12/2018 1130	MH
Magnesium	49		3.0		mg/L	1	02/23/2018 1400	03/09/2018 1831	MH
Manganese	13		0.020		mg/L	1	02/23/2018 1400	03/09/2018 1832	MH
Zinc	1.4		0.040		mg/L	1	02/23/2018 1400	03/09/2018 1832	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	0.00083		0.00050		mg/L	1	02/19/2018 1415	02/22/2018 1646	MH
Arsenic	0.20		0.0050		mg/L	10	02/19/2018 1415	02/22/2018 1625	MH
Beryllium	0.0035		0.0025		mg/L	10	02/19/2018 1415	02/22/2018 1625	MH
Cadmium	0.0044		0.0025		mg/L	10	02/19/2018 1415	02/22/2018 1625	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Lab Sample ID: 18B0450-01

Client Sample ID: Alta Outfall
Collection Date/Time: 02/15/2018 0905
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Chromium	0.044		0.0050		mg/L	10	02/19/2018 1415	02/22/2018 1625	MH
Copper	0.25		0.0050		mg/L	10	02/19/2018 1415	02/22/2018 1625	MH
Lead	0.71		0.0050		mg/L	10	02/19/2018 1415	02/22/2018 1625	MH
Nickel	0.030		0.0050		mg/L	10	02/19/2018 1415	02/22/2018 1625	MH
Selenium	ND		0.0025		mg/L	1	02/19/2018 1415	02/22/2018 1646	MH
Silver	0.0074		0.0050		mg/L	10	02/19/2018 1415	02/22/2018 1625	MH
Thallium	0.0023		0.00050		mg/L	1	02/19/2018 1415	02/22/2018 1646	MH
CVAA Total Mercury-E245.1									
Mercury	0.00022	0.000079	0.0010	E4	mg/L	1	02/20/2018 1110	02/20/2018 1628	MH
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	4800		10		mg/L	1	02/19/2018 0945	02/19/2018 1645	EJ

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Lab Sample ID: 18B0450-02

Client Sample ID: Outfall 2
Collection Date/Time: 02/15/2018 1000
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	230				mg/L	1	02/23/2018 1400	03/09/2018 1835	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	ND		0.30		mg/L	1	02/16/2018 1640	03/12/2018 1240	MH
Zinc	ND		0.040		mg/L	1	02/16/2018 1640	03/12/2018 1240	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Arsenic	0.0048		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Beryllium	ND		0.00025		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Cadmium	ND		0.00025		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Chromium	0.00069		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Copper	0.0083		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Lead	0.00075		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Manganese	0.43		0.00025		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Nickel	0.0032		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Selenium	0.0087		0.0025		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Silver	ND		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
Thallium	ND		0.00050		mg/L	1	02/16/2018 1640	02/27/2018 1337	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	02/22/2018 1300	02/22/2018 1410	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	37		4.0		mg/L	1	02/23/2018 1400	03/09/2018 1835	MH
Iron	36		3.0		mg/L	10	02/23/2018 1400	03/12/2018 1134	MH
Magnesium	33		3.0		mg/L	1	02/23/2018 1400	03/09/2018 1835	MH
Zinc	0.90		0.040		mg/L	1	02/23/2018 1400	03/09/2018 1836	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	0.00086		0.00050		mg/L	1	02/21/2018 1355	02/22/2018 1702	MH
Arsenic	0.041		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1429	MH
Beryllium	0.00084		0.00025		mg/L	1	02/21/2018 1355	02/22/2018 1702	MH
Cadmium	0.0019		0.00025		mg/L	1	02/21/2018 1355	02/22/2018 1702	MH
Chromium	0.017		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1429	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Lab Sample ID: 18B0450-02

Client Sample ID: Outfall 2
Collection Date/Time: 02/15/2018 1000
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Copper	0.088		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1429	MH
Lead	0.15		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1429	MH
Manganese	6.0		0.0025		mg/L	10	02/21/2018 1355	02/22/2018 1429	MH
Nickel	0.028		0.013		mg/L	5	03/05/2018 0950	03/06/2018 1159	MH
Selenium	0.0081		0.0025		mg/L	1	02/21/2018 1355	02/22/2018 1702	MH
Silver	0.0015		0.00050		mg/L	1	02/21/2018 1355	02/22/2018 1702	MH
Thallium	0.00071		0.00050		mg/L	1	02/21/2018 1355	02/22/2018 1702	MH
CVAA Total Mercury-E245.1									
Mercury	0.00027	0.000079	0.0010	E4	mg/L	1	02/20/2018 1110	02/20/2018 1630	MH
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	390		10		mg/L	1	02/19/2018 0945	02/19/2018 1645	EJ

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 18B0450
 Date Received: 02/15/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802202 - E245.1										
Blank (1802202-BLK1)				Prepared & Analyzed: 02/20/2018						
Mercury	ND	0.0010	mg/L							
LCS (1802202-BS1)				Prepared & Analyzed: 02/20/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		99	85-115			
LCS Dup (1802202-BSD1)				Prepared & Analyzed: 02/20/2018						
Mercury	0.0049	0.0010	mg/L	0.005000		99	85-115	0.6	20	
Matrix Spike (1802202-MS1)				Source: 18B0472-01		Prepared & Analyzed: 02/20/2018				
Mercury	0.0045	0.0010	mg/L	0.005000	ND	89	85-115			
Matrix Spike Dup (1802202-MSD1)				Source: 18B0472-01		Prepared & Analyzed: 02/20/2018				
Mercury	0.0046	0.0010	mg/L	0.005000	ND	92	85-115	3	20	
Batch 1802216 - E200.8 (5.4)										
Blank (1802216-BLK1)				Prepared: 02/19/2018 Analyzed: 02/22/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1802216-BS1)				Prepared: 02/19/2018 Analyzed: 02/22/2018						
Antimony	0.048	0.00050	mg/L	0.05000		97	85-115			
Arsenic	0.047	0.00050	mg/L	0.05000		95	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		99	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		97	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		99	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	0.045	0.00050	mg/L	0.05000		90	85-115			
Selenium	0.047	0.0025	mg/L	0.05000		94	85-115			
Silver	0.050	0.00050	mg/L	0.05000		99	85-115			
Thallium	0.048	0.00050	mg/L	0.05000		97	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Date Received: 02/15/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802216 - E200.8 (5.4)										
LCS Dup (1802216-BSD1)				Prepared: 02/19/2018 Analyzed: 02/22/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Arsenic	0.047	0.00050	mg/L	0.05000		95	85-115	0.3	20	
Beryllium	0.051	0.00025	mg/L	0.05000		102	85-115	3	20	
Cadmium	0.049	0.00025	mg/L	0.05000		97	85-115	0.04	20	
Chromium	0.049	0.00050	mg/L	0.05000		97	85-115	2	20	
Copper	0.049	0.00050	mg/L	0.05000		99	85-115	0.4	20	
Lead	0.049	0.00050	mg/L	0.05000		97	85-115	0.1	20	
Nickel	0.044	0.00050	mg/L	0.05000		89	85-115	1	20	
Selenium	0.046	0.0025	mg/L	0.05000		93	85-115	1	20	
Silver	0.049	0.00050	mg/L	0.05000		98	85-115	1	20	
Thallium	0.048	0.00050	mg/L	0.05000		96	85-115	0.9	20	

Matrix Spike (1802216-MS1)				Source: 18B0421-01		Prepared: 02/19/2018 Analyzed: 02/22/2018				
Antimony	0.045	0.00050	mg/L	0.05000	0.00017	91	70-130			
Arsenic	0.050	0.00050	mg/L	0.05000	0.0016	97	70-130			
Beryllium	0.045	0.00025	mg/L	0.05000	0.000042	90	70-130			
Cadmium	0.045	0.00025	mg/L	0.05000	ND	90	70-130			
Chromium	0.048	0.00050	mg/L	0.05000	0.0012	94	70-130			
Copper	0.049	0.00050	mg/L	0.05000	0.0036	91	70-130			
Lead	0.051	0.00050	mg/L	0.05000	0.00098	100	70-130			
Nickel	0.044	0.00050	mg/L	0.05000	ND	87	70-130			
Selenium	0.047	0.0025	mg/L	0.05000	ND	95	70-130			
Silver	0.043	0.00050	mg/L	0.05000	0.000048	86	70-130			
Thallium	0.051	0.00050	mg/L	0.05000	0.000032	102	70-130			

Batch 1802240 - E200.8 (5.4)										
Blank (1802240-BLK1)				Prepared: 02/21/2018 Analyzed: 02/22/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Selenium	ND	0.0025	mg/L							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Date Received: 02/15/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802240 - E200.8 (5.4)										
LCS (1802240-BS1)				Prepared: 02/21/2018 Analyzed: 02/22/2018						
Antimony	0.047	0.00050	mg/L	0.05000		93	85-115			
Arsenic	0.046	0.00050	mg/L	0.05000		92	85-115			
Beryllium	0.046	0.00025	mg/L	0.05000		91	85-115			
Cadmium	0.046	0.00025	mg/L	0.05000		91	85-115			
Chromium	0.047	0.00050	mg/L	0.05000		95	85-115			
Copper	0.046	0.00050	mg/L	0.05000		92	85-115			
Lead	0.046	0.00050	mg/L	0.05000		93	85-115			
Manganese	0.046	0.00025	mg/L	0.05000		92	85-115			
Selenium	0.046	0.0025	mg/L	0.05000		91	85-115			
Silver	0.046	0.00050	mg/L	0.05000		92	85-115			
Thallium	0.046	0.00050	mg/L	0.05000		92	85-115			
LCS Dup (1802240-BSD1)				Prepared: 02/21/2018 Analyzed: 02/22/2018						
Antimony	0.047	0.00050	mg/L	0.05000		94	85-115	1	20	
Arsenic	0.046	0.00050	mg/L	0.05000		93	85-115	1	20	
Beryllium	0.046	0.00025	mg/L	0.05000		92	85-115	1	20	
Cadmium	0.046	0.00025	mg/L	0.05000		93	85-115	2	20	
Chromium	0.048	0.00050	mg/L	0.05000		96	85-115	1	20	
Copper	0.046	0.00050	mg/L	0.05000		93	85-115	0.5	20	
Lead	0.047	0.00050	mg/L	0.05000		94	85-115	0.7	20	
Manganese	0.046	0.00025	mg/L	0.05000		93	85-115	0.9	20	
Selenium	0.046	0.0025	mg/L	0.05000		92	85-115	1	20	
Silver	0.046	0.00050	mg/L	0.05000		92	85-115	0.5	20	
Thallium	0.047	0.00050	mg/L	0.05000		93	85-115	2	20	
Matrix Spike (1802240-MS1)				Source: 18B0506-05		Prepared: 02/21/2018 Analyzed: 02/22/2018				
Antimony	0.047	0.00050	mg/L	0.05000	0.00020	94	70-130			
Arsenic	0.064	0.00050	mg/L	0.05000	0.017	94	70-130			
Beryllium	0.039	0.00025	mg/L	0.05000	ND	79	70-130			
Cadmium	0.045	0.00025	mg/L	0.05000	ND	90	70-130			
Chromium	0.053	0.00050	mg/L	0.05000	0.0042	99	70-130			
Copper	0.065	0.00050	mg/L	0.05000	0.023	83	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00050	100	70-130			
Manganese	0.056	0.00025	mg/L	0.05000	0.0080	95	70-130			
Selenium	0.047	0.0025	mg/L	0.05000	0.00087	93	70-130			
Silver	0.042	0.00050	mg/L	0.05000	0.000025	83	70-130			
Thallium	0.049	0.00050	mg/L	0.05000	ND	99	70-130			
Batch 1802242 - E 245.1										
Blank (1802242-BLK1)				Prepared & Analyzed: 02/22/2018						
Mercury	ND	0.0010	mg/L							
LCS (1802242-BS1)				Prepared & Analyzed: 02/22/2018						
Mercury	0.0053	0.0010	mg/L	0.005000		106	85-115			
LCS Dup (1802242-BSD1)				Prepared & Analyzed: 02/22/2018						
Mercury	0.0053	0.0010	mg/L	0.005000		106	85-115	0.7	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Date Received: 02/15/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802242 - E 245.1										
Matrix Spike (1802242-MS1)		Source: 18B0421-01			Prepared & Analyzed: 02/22/2018					
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115			
Matrix Spike Dup (1802242-MSD1)		Source: 18B0421-01			Prepared & Analyzed: 02/22/2018					
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115	0.2	20	
Batch 1802275 - E200.7 (4.4)										
Blank (1802275-BLK1)		Prepared: 02/23/2018 Analyzed: 03/09/2018								
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 (1802275-BS1)		Prepared: 02/23/2018 Analyzed: 03/09/2018								
Calcium	9.5	4.0	mg/L	10.00		95	85-115			
Iron	0.98	0.30	mg/L	1.000		98	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Manganese	0.48	0.020	mg/L	0.5000		97	85-115			
Zinc	0.46	0.040	mg/L	0.5000		92	85-115			
LCS Dup (1802275-BSD1)		Prepared: 02/23/2018 Analyzed: 03/09/2018								
Calcium	9.2	4.0	mg/L	10.00		92	85-115	3	20	
Iron	0.97	0.30	mg/L	1.000		97	85-115	1	20	
Magnesium	9.6	3.0	mg/L	10.00		96	85-115	2	20	
Manganese	0.48	0.020	mg/L	0.5000		96	85-115	0.8	20	
Zinc	0.46	0.040	mg/L	0.5000		91	85-115	0.9	20	
Matrix Spike (1802275-MS1)		Source: 18B0356-01			Prepared: 02/23/2018 Analyzed: 03/09/2018					
Calcium	47	4.0	mg/L	10.00	38	83	70-130			
Iron	7.3	0.30	mg/L	1.000	6.4	88	70-130			
Magnesium	16	3.0	mg/L	10.00	6.1	96	70-130			
Manganese	1.5	0.020	mg/L	0.5000	1.1	75	70-130			
Zinc	0.60	0.040	mg/L	0.5000	0.16	87	70-130			
Matrix Spike (1802275-MS2)		Source: 18B0439-03			Prepared: 02/23/2018 Analyzed: 03/09/2018					
Calcium	18	4.0	mg/L	10.00	7.1	110	70-130			
Iron	1.7	0.30	mg/L	1.000	0.52	116	70-130			
Magnesium	11	3.0	mg/L	10.00	0.86	106	70-130			
Manganese	0.53	0.020	mg/L	0.5000	0.021	101	70-130			
Zinc	0.52	0.040	mg/L	0.5000	0.033	97	70-130			
Batch 1802281 - E 200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Date Received: 02/15/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802281 - E 200.8 (5.4)										
Blank (1802281-BLK1)				Prepared & Analyzed: 02/27/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1802281-BS1)				Prepared & Analyzed: 02/27/2018						
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115			
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115			
Beryllium	0.051	0.00025	mg/L	0.05000		102	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		103	85-115			
Chromium	0.054	0.00050	mg/L	0.05000		107	85-115			
Copper	0.051	0.00050	mg/L	0.05000		101	85-115			
Lead	0.050	0.00050	mg/L	0.05000		101	85-115			
Manganese	0.054	0.00025	mg/L	0.05000		109	85-115			
Nickel	0.053	0.00050	mg/L	0.05000		106	85-115			
Selenium	0.053	0.0025	mg/L	0.05000		105	85-115			
Silver	0.049	0.00050	mg/L	0.05000		99	85-115			
Thallium	0.051	0.00050	mg/L	0.05000		102	85-115			
LCS Dup (1802281-BSD1)				Prepared & Analyzed: 02/27/2018						
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115	0.006		20
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115	0.2		20
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115	0.3		20
Cadmium	0.052	0.00025	mg/L	0.05000		103	85-115	0.5		20
Chromium	0.054	0.00050	mg/L	0.05000		107	85-115	0.4		20
Copper	0.051	0.00050	mg/L	0.05000		101	85-115	0.3		20
Lead	0.051	0.00050	mg/L	0.05000		101	85-115	0.5		20
Manganese	0.055	0.00025	mg/L	0.05000		109	85-115	0.5		20
Nickel	0.053	0.00050	mg/L	0.05000		106	85-115	0.3		20
Selenium	0.052	0.0025	mg/L	0.05000		104	85-115	1		20
Silver	0.049	0.00050	mg/L	0.05000		99	85-115	0.3		20
Thallium	0.051	0.00050	mg/L	0.05000		103	85-115	0.8		20

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 18B0450
 Date Received: 02/15/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802281 - E 200.8 (5.4)										
Matrix Spike (1802281-MS1)		Source: 18B0547-01			Prepared & Analyzed: 02/27/2018					
Antimony	0.051	0.00050	mg/L	0.05000	0.00038	101	70-130			
Arsenic	0.057	0.00050	mg/L	0.05000	0.0023	108	70-130			
Beryllium	0.044	0.00025	mg/L	0.05000	0.000059	88	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	ND	98	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.00065	102	70-130			
Copper	0.045	0.00050	mg/L	0.05000	0.0013	87	70-130			
Lead	0.055	0.00050	mg/L	0.05000	0.00021	109	70-130			
Manganese	0.053	0.00025	mg/L	0.05000	0.0020	103	70-130			
Nickel	0.050	0.00050	mg/L	0.05000	0.0040	91	70-130			
Selenium	0.062	0.0025	mg/L	0.05000	0.0027	118	70-130			
Silver	0.043	0.00050	mg/L	0.05000	0.000076	85	70-130			
Thallium	0.055	0.00050	mg/L	0.05000	0.00012	110	70-130			
Batch 1803047 - E200.8 (5.4)										
Blank (1803047-BLK1)		Prepared: 03/05/2018 Analyzed: 03/06/2018								
Nickel	ND	0.00050	mg/L							
LCS (1803047-BS1)		Prepared: 03/05/2018 Analyzed: 03/06/2018								
Nickel	0.046	0.00050	mg/L	0.05000		91	85-115			
LCS Dup (1803047-BSD1)		Prepared: 03/05/2018 Analyzed: 03/06/2018								
Nickel	0.046	0.00050	mg/L	0.05000		91	85-115	0.03	20	
Matrix Spike (1803047-MS1)		Source: 18C0069-01			Prepared: 03/05/2018 Analyzed: 03/06/2018					
Nickel	0.058	0.00050	mg/L	0.05000	0.0047	106	70-130			
Batch 1803123 - E 200.7 (4.4)										
Blank (1803123-BLK1)		Prepared & Analyzed: 03/12/2018								
Iron	ND	0.30	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1803123-BS1)		Prepared & Analyzed: 03/12/2018								
Iron	1.0	0.30	mg/L	1.000		104	85-115			
Zinc	0.53	0.040	mg/L	0.5000		106	85-115			
LCS Dup (1803123-BSD1)		Prepared & Analyzed: 03/12/2018								
Iron	1.0	0.30	mg/L	1.000		104	85-115	0.1	20	
Zinc	0.53	0.040	mg/L	0.5000		107	85-115	0.5	20	
Matrix Spike (1803123-MS1)		Source: 18B0466-01			Prepared & Analyzed: 03/12/2018					
Iron	1.0	0.30	mg/L	1.000	ND	102	70-130			
Zinc	0.51	0.040	mg/L	0.5000	ND	103	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0450
Date Received: 02/15/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802187 - SM2540 D										
Duplicate (1802187-DUP1)		Source: 18B0452-02			Prepared & Analyzed: 02/19/2018					
Total Suspended Solids	11	10	mg/L		11			0	5	
Duplicate (1802187-DUP2)		Source: 18B0450-02			Prepared & Analyzed: 02/19/2018					
Total Suspended Solids	400	10	mg/L		390			3	5	



2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 1880450 DATE 2-15-18 PAGE 1 OF 3

PROJECT NAME <u>Hermosa Taylor</u> # _____ CONTACT NAME : <u>Johnny Pappas</u> COMPANY NAME : <u>AZ Minerals, Inc</u> ADDRESS : <u>2210 Eastfort Lowell RD</u> CITY <u>Tucson</u> STATE <u>AZ</u> ZIP CODE <u>85719</u> PHONE <u>520-485-1300</u> FAX _____ SAMPLER'S SIGNATURE <u>[Signature]</u>			CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX		
SAMPLE I.D. DATE TIME LAB I.D. SAMPLE MATRIX* <u>Alfa outfall</u> <u>2-15-18</u> <u>9:05AM</u> <u>Total</u> <u>Alfa outfall</u> <u>2-15-18</u> <u>9:05AM</u> <u>DIS+TSS</u> <u>outfall 2</u> <u>2-15-18</u> <u>10:01AM</u> <u>Total</u> <u>outfall 2</u> <u>2-15-18</u> <u>10:01AM</u> <u>DIS+TSS</u>			NUMBER OF CONTAINERS <u>See Attached</u>		
1. RELINQUISHED BY: <u>[Signature]</u> Signature <u>Robert Dodson</u> Printed Name <u>AZ Minerals, Inc</u> Firm <u>2-15-17 9:05</u> Date/Time			REPORT REQUIREMENTS: I. Routine Report _____ II. Report (includes Dup, MS, MSD, as required, may be charged as samples) _____ Y _____ N III. Date Validation Report (includes All Raw Data) _____ Add 10% to invoice _____		
2. RECEIVED BY: <u>[Signature]</u> Signature <u>Steven Richman</u> Printed Name <u>AZ Minerals</u> Firm <u>2-15-17 9:05</u> Date/Time			INVOICE INFORMATION: Account _____ Y _____ N P.O. # _____ Bill to: _____ Wet Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/>		
3. RELINQUISHED BY: <u>[Signature]</u> Signature <u>Steven Richman</u> Printed Name <u>AZ Minerals</u> Firm <u>2-15-17 13:17</u> Date/Time			SPECIAL INSTRUCTIONS/COMMENTS: Compliance Analysis: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seals <input type="checkbox"/> Preservation Confirmation <input checked="" type="checkbox"/> ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No Container Intact <input checked="" type="checkbox"/> Appropriate Head Space <input checked="" type="checkbox"/> Mail ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No COC/Labels Agree <input checked="" type="checkbox"/> Received Within Hold Time <input checked="" type="checkbox"/>		
4. RECEIVED BY: <u>[Signature]</u> Signature <u>Joseph Catala</u> Printed Name <u>TURNER LABORATORIES, INC</u> Firm <u>2/15/18 13:17</u> Date/Time			*LEGEND DW = DRINKING WATER GW = GROUNDWATER SD = SOLID SG = SLUDGE SL = SOIL ST = STORMWATER WW = WASTEWATER		

STORMWATER SAMPLE FORM

Field Staff Robert Dodson Company Arizona Minerals Weather sprinkling / cloudy
 Notes _____ Rainfall (inches) 2"

Sample Location	Sample ID	Flow (gpm)	Sample Date	Time Sampled	Temp °C	pH	Specific Conductivity (µs/cm)	Turbidity (NTU)	Appearance of Water: (color, odor, etc) or other notes
Alto outfall	2-15-18		2-15-18	9:11 AM	13.2°C	8.25	802.2	596	brown
outfall 2	2-15-18		2-15-18	10:01 AM	13°C	7.17	454.7	1060	brown

Sample Laboratory Information

Container Volume	No of Containers	Filtered Y/N	Preservative	Lab Analysis	Meter:
500	2	N	N	DIS + TSS	pH: YSI Professional Plus
250	2	N	Y	Total	Turbidity: Geo Tech Portable Turbidity Meter
					Calibration Date: Turbidity - 2-15-18 PH - 2-15-18

Dissolved Metals - Filter (0.45 micron filter) prior to placing into 250 ml container with nitric acid preservative.
 Total Metals - 250 ml container with nitric acid preservative.
 TSS, Hardness (Calcium, Magnesium) - 250 ml container with NO preservative.

Stormwater Sampling Parameters					
Analyte	ICP/MS	Total	Dissolved	Analytical Method	MDL
pH	Field				
Hardness (CaCO ₃) calc. from Ca, Mg)		X		E200.7	
TSS		X		SM2540	
Antimony	X	X	X	E200.8	0.000029
Arsenic	X	X	X	E200.8	0.000034
Beryllium	X	X	X	E200.8	0.000021
Cadmium	X	X	X	E200.8	0.000018
Chromium	X	X	X	E200.8	0.000036
Copper	X	X	X	E200.8	0.000083
Iron	X	X	X	E200.7	0.0044
Lead	X	X	X	E200.8	0.000031
Manganese	X	X	X	E200.8	0.000034
Mercury	X	X	X	E245.1	0.000094
Nickel	X	X	X	E200.8	0.000083
Selenium	X	X	X	E200.8	0.00016
Silver	X	X	X	E200.8	0.000029
Thallium	X	X	X	E200.8	0.000028
Zinc	X	X	X	E200.7	0.0065

pH, Temp, Cond, and Turbidity are Field Measurements



March 13, 2018

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

TEL (802) 235-5563
FAX

RE: Storm Water

Work Order No.: 18B0491
Order Name: Hermosa Taylor
Deposit

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 02/19/2018 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: Storm Water
Work Order: 18B0491
Date Received: 02/19/2018

Order: Hermosa Taylor Deposit

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18B0491-01	Alta Outfall	Storm Water	02/19/2018 1041

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0491
Date Received: 02/19/2018

Case Narrative

- 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.
- M7 Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.
- Q9 Insufficient sample received to meet method QC requirements.

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: Storm Water
Work Order: 18B0491
Lab Sample ID: 18B0491-01

Client Sample ID: Alta Outfall
Collection Date/Time: 02/19/2018 1041
Matrix: Storm Water
Order Name: Hermosa Taylor Deposit

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1400				mg/L	1	02/23/2018 1400	03/09/2018 1847	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	ND		0.30		mg/L	1	03/05/2018 0855	03/12/2018 1244	MH
Manganese	ND		0.020		mg/L	1	03/05/2018 0855	03/12/2018 1244	MH
Zinc	ND		0.040		mg/L	1	03/05/2018 0855	03/12/2018 1244	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	0.0010		0.00050		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Arsenic	0.016		0.00050		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Beryllium	ND		0.00025		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Cadmium	ND		0.00025		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Chromium	0.00070		0.00050		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Copper	0.0019		0.00050		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Lead	ND		0.00050		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Nickel	0.00080		0.00050		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Selenium	0.00098	0.00025	0.0025	E4	mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Silver	ND		0.00050		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
Thallium	ND		0.00050		mg/L	1	03/05/2018 0855	03/05/2018 1233	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	03/05/2018 1139	03/05/2018 1547	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	170		4.0		mg/L	1	02/23/2018 1400	03/09/2018 1847	MH
Iron	460		15		mg/L	50	02/23/2018 1400	03/12/2018 1138	MH
Magnesium	230		3.0		mg/L	1	02/23/2018 1400	03/09/2018 1847	MH
Manganese	100		1.0		mg/L	50	02/23/2018 1400	03/12/2018 1139	MH
Nickel	0.26		0.050		mg/L	1	02/23/2018 1400	03/09/2018 1848	MH
Zinc	10		2.0		mg/L	50	02/23/2018 1400	03/12/2018 1139	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.0050	D5	mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
Arsenic	0.27		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
Beryllium	0.015		0.0025		mg/L	10	02/21/2018 1355	02/22/2018 1435	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0491
Lab Sample ID: 18B0491-01

Client Sample ID: Alta Outfall
Collection Date/Time: 02/19/2018 1041
Matrix: Storm Water
Order Name: Hermosa Taylor Deposit

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Cadmium	0.034		0.0025		mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
Chromium	0.11		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
Copper	1.0		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
Lead	2.5		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
Selenium	ND	0.0025	0.025	D5, E8	mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
Silver	0.044		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
Thallium	0.013		0.0050		mg/L	10	02/21/2018 1355	02/22/2018 1435	MH
CVAA Total Mercury-E245.1									
Mercury	0.0013		0.0010		mg/L	1	02/20/2018 1110	02/20/2018 1638	MH
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	16000		10		mg/L	1	02/22/2018 0930	02/22/2018 1635	EJ

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 18B0491
 Date Received: 02/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802202 - E245.1										
Blank (1802202-BLK1)				Prepared & Analyzed: 02/20/2018						
Mercury	ND	0.0010	mg/L							
LCS (1802202-BS1)				Prepared & Analyzed: 02/20/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		99	85-115			
LCS Dup (1802202-BSD1)				Prepared & Analyzed: 02/20/2018						
Mercury	0.0049	0.0010	mg/L	0.005000		99	85-115	0.6	20	
Matrix Spike (1802202-MS1)				Source: 18B0472-01		Prepared & Analyzed: 02/20/2018				
Mercury	0.0045	0.0010	mg/L	0.005000	ND	89	85-115			
Matrix Spike Dup (1802202-MSD1)				Source: 18B0472-01		Prepared & Analyzed: 02/20/2018				
Mercury	0.0046	0.0010	mg/L	0.005000	ND	92	85-115	3	20	
Batch 1802240 - E200.8 (5.4)										
Blank (1802240-BLK1)				Prepared: 02/21/2018 Analyzed: 02/22/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Selenium	ND	0.0025	mg/L							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1802240-BS1)				Prepared: 02/21/2018 Analyzed: 02/22/2018						
Antimony	0.047	0.00050	mg/L	0.05000		93	85-115			
Arsenic	0.046	0.00050	mg/L	0.05000		92	85-115			
Beryllium	0.046	0.00025	mg/L	0.05000		91	85-115			
Cadmium	0.046	0.00025	mg/L	0.05000		91	85-115			
Chromium	0.047	0.00050	mg/L	0.05000		95	85-115			
Copper	0.046	0.00050	mg/L	0.05000		92	85-115			
Lead	0.046	0.00050	mg/L	0.05000		93	85-115			
Selenium	0.046	0.0025	mg/L	0.05000		91	85-115			
Silver	0.046	0.00050	mg/L	0.05000		92	85-115			
Thallium	0.046	0.00050	mg/L	0.05000		92	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0491
Date Received: 02/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802240 - E200.8 (5.4)										
LCS Dup (1802240-BSD1)				Prepared: 02/21/2018 Analyzed: 02/22/2018						
Antimony	0.047	0.00050	mg/L	0.05000		94	85-115	1	20	
Arsenic	0.046	0.00050	mg/L	0.05000		93	85-115	1	20	
Beryllium	0.046	0.00025	mg/L	0.05000		92	85-115	1	20	
Cadmium	0.046	0.00025	mg/L	0.05000		93	85-115	2	20	
Chromium	0.048	0.00050	mg/L	0.05000		96	85-115	1	20	
Copper	0.046	0.00050	mg/L	0.05000		93	85-115	0.5	20	
Lead	0.047	0.00050	mg/L	0.05000		94	85-115	0.7	20	
Selenium	0.046	0.0025	mg/L	0.05000		92	85-115	1	20	
Silver	0.046	0.00050	mg/L	0.05000		92	85-115	0.5	20	
Thallium	0.047	0.00050	mg/L	0.05000		93	85-115	2	20	
Matrix Spike (1802240-MS1) Source: 18B0506-05										
				Prepared: 02/21/2018 Analyzed: 02/22/2018						
Antimony	0.047	0.00050	mg/L	0.05000	0.00020	94	70-130			
Arsenic	0.064	0.00050	mg/L	0.05000	0.017	94	70-130			
Beryllium	0.039	0.00025	mg/L	0.05000	ND	79	70-130			
Cadmium	0.045	0.00025	mg/L	0.05000	ND	90	70-130			
Chromium	0.053	0.00050	mg/L	0.05000	0.0042	99	70-130			
Copper	0.065	0.00050	mg/L	0.05000	0.023	83	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00050	100	70-130			
Selenium	0.047	0.0025	mg/L	0.05000	0.00087	93	70-130			
Silver	0.042	0.00050	mg/L	0.05000	0.000025	83	70-130			
Thallium	0.049	0.00050	mg/L	0.05000	ND	99	70-130			
Batch 1802275 - E200.7 (4.4)										
Blank (1802275-BLK1)				Prepared: 02/23/2018 Analyzed: 03/09/2018						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Nickel	ND	0.050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1802275-BS1)				Prepared: 02/23/2018 Analyzed: 03/09/2018						
Calcium	9.5	4.0	mg/L	10.00		95	85-115			
Iron	0.98	0.30	mg/L	1.000		98	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Manganese	0.48	0.020	mg/L	0.5000		97	85-115			
Nickel	0.46	0.050	mg/L	0.5000		91	85-115			
Zinc	0.46	0.040	mg/L	0.5000		92	85-115			
LCS Dup (1802275-BSD1)				Prepared: 02/23/2018 Analyzed: 03/09/2018						
Calcium	9.2	4.0	mg/L	10.00		92	85-115	3	20	
Iron	0.97	0.30	mg/L	1.000		97	85-115	1	20	
Magnesium	9.6	3.0	mg/L	10.00		96	85-115	2	20	
Manganese	0.48	0.020	mg/L	0.5000		96	85-115	0.8	20	
Nickel	0.45	0.050	mg/L	0.5000		91	85-115	0.8	20	
Zinc	0.46	0.040	mg/L	0.5000		91	85-115	0.9	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0491
Date Received: 02/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch 1802275 - E200.7 (4.4)

Matrix Spike (1802275-MS1)		Source: 18B0356-01			Prepared: 02/23/2018 Analyzed: 03/09/2018					
Calcium	47	4.0	mg/L	10.00	38	83	70-130			
Iron	7.3	0.30	mg/L	1.000	6.4	88	70-130			
Magnesium	16	3.0	mg/L	10.00	6.1	96	70-130			
Manganese	1.5	0.020	mg/L	0.5000	1.1	75	70-130			
Nickel	0.46	0.050	mg/L	0.5000	ND	91	70-130			
Zinc	0.60	0.040	mg/L	0.5000	0.16	87	70-130			

Matrix Spike (1802275-MS2)		Source: 18B0439-03			Prepared: 02/23/2018 Analyzed: 03/09/2018					
Calcium	18	4.0	mg/L	10.00	7.1	110	70-130			
Iron	1.7	0.30	mg/L	1.000	0.52	116	70-130			
Magnesium	11	3.0	mg/L	10.00	0.86	106	70-130			
Manganese	0.53	0.020	mg/L	0.5000	0.021	101	70-130			
Nickel	0.48	0.050	mg/L	0.5000	ND	96	70-130			
Zinc	0.52	0.040	mg/L	0.5000	0.033	97	70-130			

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							
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							
Silver	ND	0.00050	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			
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			
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115			
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115			
Silver	0.049	0.00050	mg/L	0.05000		99	85-115			
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0491
Date Received: 02/19/2018

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)										
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	
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	
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	
Silver	0.049	0.00050	mg/L	0.05000		99	85-115	0.1	20	
Thallium	0.051	0.00050	mg/L	0.05000		102	85-115	0.8	20	
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			
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			
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			
Silver	0.042	0.00050	mg/L	0.05000	ND	83	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)				Prepared & Analyzed: 03/05/2018						
Mercury	0.0033	0.0010	mg/L	0.005000	ND	66	85-115	22	20	M7
Batch 1803123 - E 200.7 (4.4)										
Blank (1803123-BLK1)				Prepared & Analyzed: 03/12/2018						
Iron	ND	0.30	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 18B0491
 Date Received: 02/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803123 - E 200.7 (4.4)										
LCS (1803123-BS1)				Prepared & Analyzed: 03/12/2018						
Iron	1.0	0.30	mg/L	1.000		104	85-115			
Manganese	0.53	0.020	mg/L	0.5000		106	85-115			
Zinc	0.53	0.040	mg/L	0.5000		106	85-115			
LCS Dup (1803123-BSD1)				Prepared & Analyzed: 03/12/2018						
Iron	1.0	0.30	mg/L	1.000		104	85-115	0.1	20	
Manganese	0.53	0.020	mg/L	0.5000		106	85-115	0.3	20	
Zinc	0.53	0.040	mg/L	0.5000		107	85-115	0.5	20	
Matrix Spike (1803123-MS1)		Source: 18B0466-01		Prepared & Analyzed: 03/12/2018						
Iron	1.0	0.30	mg/L	1.000	ND	102	70-130			
Manganese	0.51	0.020	mg/L	0.5000	ND	101	70-130			
Zinc	0.51	0.040	mg/L	0.5000	ND	103	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18B0491
Date Received: 02/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802232 - SM2540 D										
Duplicate (1802232-DUP1)		Source: 18B0358-01			Prepared & Analyzed: 02/22/2018					
Total Suspended Solids	ND	10	mg/L		0.0				5	Q9
Duplicate (1802232-DUP2)		Source: 18B0469-03			Prepared & Analyzed: 02/22/2018					
Total Suspended Solids	3.0	10	mg/L		3.0			0	5	



2445 N. Coyote Drive, Suite 104
 Tucson, Arizona 85745
 (520) 882-5880
 Fax: (520) 882-9788
 www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18B0491 DATE 2-19-18 PAGE 1 OF 3

PROJECT NAME Hermosa Taylor deposit#

CONTACT NAME: Johnny Pappas

COMPANY NAME: Arizona Minerals inc

ADDRESS: 2210 East Fort Lowell RD

CITY Tucson STATE AZ ZIP CODE 85719

PHONE 520-485-1300 FAX

SAMPLER'S SIGNATURE

TURNAROUND REQUIREMENTS:

Standard (approx. 10 days)*

Next day 2 Day 5 Day*

Email Preliminary Results To:

* Working Days

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*
<u>Alta outfall</u>	<u>2-19-18</u>	<u>10:45 AM</u>		<u>Total</u>
<u>Alta outfall</u>	<u>2-19-18</u>	<u>10:45 AM</u>		<u>DES-ISS</u>

1. RELINQUISHED BY:

Signature: Robert Dawson
 Printed Name: AZ Minerals inc
 Firm: 2-19-18 1:04 PM
 Date/Time:

2. RECEIVED BY:

Signature: Sarah Richman
 Printed Name: AMI
 Firm: 2-19-18 1:01 PM
 Date/Time:

3. RELINQUISHED BY:

Signature: Sarah Richman
 Printed Name: AMI
 Firm: 2-19-18 1645
 Date/Time:

4. RECEIVED BY:

Signature: Joseph Cetalan
 Printed Name: TURNER LABORATORIES, INC
 Firm: 2/19/18 1645
 Date/Time:

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

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

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:

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: Yes No Custody Seals No

ADEQ Forms: Yes No Container Intact X

Mail ADEQ Forms: Yes No COC/Labels Agree X

Received Within Hold Time X

Preservation Confirmation X

Appropriate Head Space X

Received Within Hold Time X

REPORT REQUIREMENTS:

IV. Date Validation Report (includes All Raw Data)

Add 10% to invoice

SAMPLE RECEIPT:

Total Containers 2

Temperature 9.0

Wet Ice Blue Ice X



August 08, 2017

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

TEL (802) 235-5563
FAX

RE: Storm Water

Work Order No.: 17G0658
Order Name: Hermosa Taylor
Deposits

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 07/24/2017 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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Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Max DiSante
Laboratory Director

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0658
Date Received: 07/24/2017

Order: Hermosa Taylor Deposits

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
17G0658-01	Outfall 1	Storm Water	07/24/2017 0755

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0658
Date Received: 07/24/2017

Case Narrative

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: Storm Water
Work Order: 17G0658
Lab Sample ID: 17G0658-01

Client Sample ID: Outfall 1
Collection Date/Time: 07/24/2017 0755
Matrix: Storm Water
Order Name: Hermosa Taylor Deposits

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

Hardness, Calcium/Magnesium (As CaCO3)	170				mg/L	1	07/25/2017 1200	07/26/2017 1302	MH
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ICP Dissolved Metals-E 200.7 (4.4)

Iron	ND		0.30		mg/L	1	07/28/2017 0935	07/28/2017 1116	MH
Magnesium	25		3.0		mg/L	1	07/28/2017 0935	07/28/2017 1115	MH
Zinc	0.15		0.040		mg/L	1	07/28/2017 0935	07/28/2017 1116	MH

ICP/MS Dissolved Metals-E 200.8 (5.4)

Antimony	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Arsenic	0.0041		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Beryllium	ND		0.00025		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Cadmium	0.00063		0.00025		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Chromium	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Copper	0.0046		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Lead	0.00054		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Manganese	0.31		0.00025		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Nickel	0.0019		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Selenium	0.00051	0.00025	0.0025	E4	mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Silver	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH
Thallium	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1047	MH

CVAA Dissolved Mercury-E 245.1

Mercury	ND	0.000094	0.0010	E8	mg/L	1	08/07/2017 1300	08/07/2017 1948	MH
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ICP Total Metals-E200.7 (4.4)

Calcium	28		4.0		mg/L	1	07/25/2017 1200	07/26/2017 1302	MH
Iron	0.43		0.30		mg/L	1	07/25/2017 1200	07/26/2017 1302	MH
Magnesium	24		3.0		mg/L	1	07/25/2017 1200	07/26/2017 1302	MH
Zinc	0.17		0.040		mg/L	1	07/25/2017 1200	07/26/2017 1303	MH

ICP/MS Total Metals-E200.8 (5.4)

Antimony	ND		0.00050		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
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Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0658
Lab Sample ID: 17G0658-01

Client Sample ID: Outfall 1
Collection Date/Time: 07/24/2017 0755
Matrix: Storm Water
Order Name: Hermosa Taylor Deposits

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Arsenic	0.0039		0.00050		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
Beryllium	ND		0.00025		mg/L	1	08/01/2017 1030	08/04/2017 1258	MH
Cadmium	0.00068		0.00025		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
Chromium	0.0010		0.00050		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
Copper	0.0055		0.00050		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
Lead	0.0056		0.00050		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
Manganese	0.33		0.0025		mg/L	10	08/01/2017 1030	08/04/2017 1226	MH
Nickel	0.0020		0.00050		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
Selenium	0.00026	0.00025	0.0025	E4	mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
Silver	ND		0.00050		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH
Thallium	ND		0.00050		mg/L	1	08/01/2017 1030	08/03/2017 1336	MH

CVAA Total Mercury-E245.1

Mercury	ND	0.000079	0.0010	E8	mg/L	1	07/27/2017 1145	07/27/2017 1555	MH
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Total Suspended Solids (Residue, Non-Filterable)-SM2540 D

Total Suspended Solids	ND		10		mg/L	1	07/28/2017 0850	07/31/2017 1340	LH
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Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0658
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 1707266 - E200.7 (4.4)										
Blank (1707266-BLK1) Prepared: 07/25/2017 Analyzed: 07/26/2017										
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1707266-BS1) Prepared: 07/25/2017 Analyzed: 07/26/2017										
Calcium	9.7	4.0	mg/L	10.00		97	85-115			
Iron	0.99	0.30	mg/L	1.000		99	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Zinc	0.47	0.040	mg/L	0.5000		94	85-115			
LCS Dup (1707266-BSD1) Prepared: 07/25/2017 Analyzed: 07/26/2017										
Calcium	9.6	4.0	mg/L	10.00		96	85-115	0.8	20	
Iron	0.98	0.30	mg/L	1.000		98	85-115	0.8	20	
Magnesium	9.7	3.0	mg/L	10.00		97	85-115	0.8	20	
Zinc	0.47	0.040	mg/L	0.5000		93	85-115	0.7	20	
Matrix Spike (1707266-MS1) Source: 17G0681-01 Prepared: 07/25/2017 Analyzed: 07/26/2017										
Calcium	54	4.0	mg/L	10.00	45	86	70-130			
Iron	1.2	0.30	mg/L	1.000	0.27	98	70-130			
Magnesium	12	3.0	mg/L	10.00	2.0	97	70-130			
Zinc	0.53	0.040	mg/L	0.5000	0.047	96	70-130			
Batch 1707291 - E245.1										
Blank (1707291-BLK1) Prepared & Analyzed: 07/27/2017										
Mercury	ND	0.0010	mg/L							
LCS (1707291-BS1) Prepared & Analyzed: 07/27/2017										
Mercury	0.0053	0.0010	mg/L	0.005000		105	85-115			
LCS Dup (1707291-BSD1) Prepared & Analyzed: 07/27/2017										
Mercury	0.0053	0.0010	mg/L	0.005000		105	85-115	0.3	20	
Matrix Spike (1707291-MS1) Source: 17G0718-01 Prepared & Analyzed: 07/27/2017										
Mercury	0.0051	0.0010	mg/L	0.005000	ND	101	85-115			
Matrix Spike Dup (1707291-MSD1) Source: 17G0718-01 Prepared & Analyzed: 07/27/2017										
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115	1	20	
Batch 1707299 - E 200.7 (4.4)										
Blank (1707299-BLK1) Prepared & Analyzed: 07/28/2017										
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1707299-BS1) Prepared & Analyzed: 07/28/2017										
Iron	1.0	0.30	mg/L	1.000		102	85-115			
Magnesium	10	3.0	mg/L	10.00		104	85-115			
Zinc	0.52	0.040	mg/L	0.5000		104	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0658
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1707299 - E 200.7 (4.4)										
LCS Dup (1707299-BSD1)				Prepared & Analyzed: 07/28/2017						
Iron	1.0	0.30	mg/L	1.000		101	85-115	0.2	20	
Magnesium	10	3.0	mg/L	10.00		104	85-115	0.4	20	
Zinc	0.52	0.040	mg/L	0.5000		104	85-115	0.3	20	
Matrix Spike (1707299-MS1)				Source: 17G0658-01		Prepared & Analyzed: 07/28/2017				
Iron	1.1	0.30	mg/L	1.000	0.025	103	70-130			
Magnesium	34	3.0	mg/L	10.00	25	94	70-130			
Zinc	0.65	0.040	mg/L	0.5000	0.15	100	70-130			
Batch 1708017 - E200.8 (5.4)										
Blank (1708017-BLK1)				Prepared: 08/01/2017 Analyzed: 08/03/2017						
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1708017-BS1)				Prepared: 08/01/2017 Analyzed: 08/03/2017						
Antimony	0.046	0.00050	mg/L	0.05000		92	85-115			
Arsenic	0.047	0.00050	mg/L	0.05000		94	85-115			
Beryllium	0.048	0.00025	mg/L	0.05000		97	85-115			
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115			
Chromium	0.046	0.00050	mg/L	0.05000		93	85-115			
Copper	0.049	0.00050	mg/L	0.05000		97	85-115			
Lead	0.046	0.00050	mg/L	0.05000		91	85-115			
Manganese	0.046	0.00025	mg/L	0.05000		92	85-115			
Nickel	0.047	0.00050	mg/L	0.05000		93	85-115			
Selenium	0.23	0.0025	mg/L	0.2500		94	85-115			
Silver	0.047	0.00050	mg/L	0.05000		94	85-115			
Thallium	0.045	0.00050	mg/L	0.05000		91	85-115			

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 17G0658
 Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708017 - E200.8 (5.4)										
LCS Dup (1708017-BSD1)										
				Prepared: 08/01/2017 Analyzed: 08/03/2017						
Antimony	0.046	0.00050	mg/L	0.05000		91	85-115	0.8	20	
Arsenic	0.046	0.00050	mg/L	0.05000		92	85-115	2	20	
Beryllium	0.049	0.00025	mg/L	0.05000		99	85-115	2	20	
Cadmium	0.048	0.00025	mg/L	0.05000		95	85-115	1	20	
Chromium	0.046	0.00050	mg/L	0.05000		92	85-115	0.8	20	
Copper	0.048	0.00050	mg/L	0.05000		97	85-115	0.4	20	
Lead	0.046	0.00050	mg/L	0.05000		91	85-115	0.2	20	
Manganese	0.045	0.00025	mg/L	0.05000		91	85-115	0.8	20	
Nickel	0.047	0.00050	mg/L	0.05000		93	85-115	0.1	20	
Selenium	0.23	0.0025	mg/L	0.2500		93	85-115	1	20	
Silver	0.046	0.00050	mg/L	0.05000		93	85-115	1	20	
Thallium	0.046	0.00050	mg/L	0.05000		91	85-115	0.8	20	
Matrix Spike (1708017-MS1)										
				Source: 17G0743-07 Prepared: 08/01/2017 Analyzed: 08/03/2017						
Antimony	0.046	0.00050	mg/L	0.05000	0.00051	91	70-130			
Arsenic	0.048	0.00050	mg/L	0.05000	0.00092	94	70-130			
Beryllium	0.045	0.00025	mg/L	0.05000	ND	90	70-130			
Cadmium	0.046	0.00025	mg/L	0.05000	0.00018	91	70-130			
Chromium	0.054	0.00050	mg/L	0.05000	0.0069	94	70-130			
Copper	0.52	0.00050	mg/L	0.05000	0.48	85	70-130			
Lead	0.12	0.00050	mg/L	0.05000	0.070	98	70-130			
Manganese	0.048	0.00025	mg/L	0.05000	0.0021	91	70-130			
Nickel	0.086	0.00050	mg/L	0.05000	0.036	100	70-130			
Selenium	0.22	0.0025	mg/L	0.2500	0.0010	86	70-130			
Silver	0.039	0.00050	mg/L	0.05000	0.000055	78	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	ND	96	70-130			
Matrix Spike (1708017-MS2)										
				Source: 17G0743-08 Prepared: 08/01/2017 Analyzed: 08/03/2017						
Antimony	0.047	0.00050	mg/L	0.05000	0.00088	92	70-130			
Arsenic	0.048	0.00050	mg/L	0.05000	0.00094	93	70-130			
Cadmium	0.045	0.00025	mg/L	0.05000	0.000050	91	70-130			
Chromium	0.054	0.00050	mg/L	0.05000	0.0070	94	70-130			
Copper	0.50	0.00050	mg/L	0.05000	0.48	51	70-130			M3
Lead	0.11	0.00050	mg/L	0.05000	0.063	94	70-130			
Manganese	0.049	0.00025	mg/L	0.05000	0.0023	93	70-130			
Nickel	0.063	0.00050	mg/L	0.05000	0.016	95	70-130			
Selenium	0.22	0.0025	mg/L	0.2500	0.0011	88	70-130			
Silver	0.040	0.00050	mg/L	0.05000	0.000062	80	70-130			
Thallium	0.047	0.00050	mg/L	0.05000	0.00023	94	70-130			
Batch 1708028 - E 200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0658
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1708028 - E 200.8 (5.4)										
Blank (1708028-BLK1)										
Prepared & Analyzed: 08/03/2017										
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1708028-BS1)										
Prepared & Analyzed: 08/03/2017										
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.049	0.00050	mg/L	0.05000		98	85-115			
Copper	0.049	0.00050	mg/L	0.05000		99	85-115			
Lead	0.050	0.00050	mg/L	0.05000		99	85-115			
Manganese	0.049	0.00025	mg/L	0.05000		98	85-115			
Nickel	0.049	0.00050	mg/L	0.05000		99	85-115			
Selenium	0.25	0.0025	mg/L	0.2500		100	85-115			
Silver	0.049	0.00050	mg/L	0.05000		98	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115			
LCS Dup (1708028-BSD1)										
Prepared & Analyzed: 08/03/2017										
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115	1	20	
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115	2	20	
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115	0.2	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	0.6	20	
Chromium	0.049	0.00050	mg/L	0.05000		99	85-115	0.6	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		98	85-115	1	20	
Manganese	0.049	0.00025	mg/L	0.05000		98	85-115	0.4	20	
Nickel	0.049	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Selenium	0.25	0.0025	mg/L	0.2500		101	85-115	0.3	20	
Silver	0.049	0.00050	mg/L	0.05000		98	85-115	0.07	20	
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115	0.2	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0658
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708028 - E 200.8 (5.4)										
Matrix Spike (1708028-MS1)		Source: 17G0659-01			Prepared & Analyzed: 08/03/2017					
Antimony	0.048	0.00050	mg/L	0.05000	0.00017	96	70-130			
Arsenic	0.053	0.00050	mg/L	0.05000	0.0017	102	70-130			
Beryllium	0.048	0.00025	mg/L	0.05000	0.000018	96	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.00039	96	70-130			
Chromium	0.047	0.00050	mg/L	0.05000	ND	94	70-130			
Copper	0.048	0.00050	mg/L	0.05000	0.0020	91	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.00018	96	70-130			
Manganese	0.31	0.00025	mg/L	0.05000	0.27	73	70-130			
Nickel	0.047	0.00050	mg/L	0.05000	0.0012	92	70-130			
Selenium	0.27	0.0025	mg/L	0.2500	0.00045	108	70-130			
Silver	0.044	0.00050	mg/L	0.05000	ND	88	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.000030	96	70-130			
Batch 1708087 - E 245.1										
Blank (1708087-BLK1)		Prepared & Analyzed: 08/07/2017								
Mercury	ND	0.0010	mg/L							
LCS (1708087-BS1)		Prepared & Analyzed: 08/07/2017								
Mercury	0.0054	0.0010	mg/L	0.005000		107	85-115			
LCS Dup (1708087-BSD1)		Prepared & Analyzed: 08/07/2017								
Mercury	0.0054	0.0010	mg/L	0.005000		109	85-115	1	20	
Matrix Spike (1708087-MS1)		Source: 17G0659-01			Prepared & Analyzed: 08/07/2017					
Mercury	0.0052	0.0010	mg/L	0.005000	ND	104	85-115			
Matrix Spike Dup (1708087-MSD1)		Source: 17G0659-01			Prepared & Analyzed: 08/07/2017					
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0658
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1707298 - SM2540 D										
Duplicate (1707298-DUP1)		Source: 17G0337-01			Prepared: 07/28/2017 Analyzed: 07/31/2017					
Total Suspended Solids	1.0	10	mg/L		1.0			0	5	
Duplicate (1707298-DUP2)		Source: 17G0678-01			Prepared: 07/28/2017 Analyzed: 07/31/2017					
Total Suspended Solids	200	10	mg/L		200			3	5	

STORMWATER SAMPLE FORM

Field Staff Andrew Cunningham

Company Arizona Mining

Weather Partly cloudy

Notes _____

Rainfall (inches) 0.05

Sample Location	Sample ID	Flow (gpm)	Sample Date	Time Sampled	Temp °C	pH	Specific Conductivity (µs/cm)	Turbidity (NTU)	Appearance of Water: (color, odor, etc) or other notes
outfall 1	7/24/17	5 gpm	7/24/17	7:55	22.4	7.3	546.3	10.52	clear, no odor

Sample Laboratory Information

Container Volume	No of Containers	Filtered Y/N	Preservative	Lab Analysis	Meter:
250 ml	1	N	Y	Total	pH: Geotech YSI Professional Pro Turbidity: Micro TPN 60892 Calibration Date: pH: 7-29-17 Turbidity: 7-29-17
250 ml	1	N	N	DSS	
250 ml	1	N	N	TSS	

Dissolved Metals - Filter (0.45 micron filter) prior to placing into 250 ml container with nitric acid preservative.
 Total Metals - 250 ml container with nitric acid preservative.
 TSS, Hardness (Calcium, Magnesium) - 250 ml container with NO preservative.

Dos 500ml

Total P

Stormwater Sampling Parameters					
Analyte	ICP/MS	Total	Dissolved	Analytical Method	MDL
pH ¹	Field				
Hardness (CaCO ₃ ; calc. from Ca, Mg)		X		E200.7	
TSS		X		SM2540	
Antimony	X	X	X	E200.8	0.000029
Arsenic	X	X	X	E200.8	0.000034
Beryllium	X	X	X	E200.8	0.000021
Cadmium	X	X	X	E200.8	0.000018
Chromium	X	X	X	E200.8	0.000036
Copper	X	X	X	E200.8	0.000083
Iron	X	X	X	E200.7	0.0044
Lead	X	X	X	E200.8	0.000031
Manganese	X	X	X	E200.8	0.000034
Mercury	X	X	X	E245.1	0.000094
Nickel	X	X	X	E200.8	0.000083
Selenium	X	X	X	E200.8	0.00016
Silver	X	X	X	E200.8	0.000029
Thallium	X	X	X	E200.8	0.000028
Zinc	X	X	X	E200.7	0.0065
¹ pH, Temp, Cond, and Turbidity are Field Measurements					



September 08, 2017

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

TEL (802) 235-5563
FAX

Work Order No.: 17H0811

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 08/24/2017 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: Storm Water
Work Order: 17H0811
Date Received: 08/24/2017

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
17H0811-01	Outfall 1	Storm Water	08/24/2017 0748

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0811
Date Received: 08/24/2017

Case Narrative

- 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.
- M7 Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.
- R13 MS/MSD RPD exceeded method acceptance limit. Matrix spike recovery was outside acceptance criteria. Batch precision and accuracy were demonstrated.

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: Storm Water
Work Order: 17H0811
Lab Sample ID: 17H0811-01

Client Sample ID: Outfall 1
Collection Date/Time: 08/24/2017 0748
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	71				mg/L	1	08/28/2017 1205	08/29/2017 1456	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	ND		0.30		mg/L	1	09/01/2017 1635	09/05/2017 1602	MH
Zinc	0.24		0.040		mg/L	1	09/01/2017 1635	09/05/2017 1602	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Arsenic	0.0029		0.00050		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Beryllium	ND		0.00025		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Cadmium	0.0015		0.00025		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Chromium	ND		0.00050		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Copper	0.033		0.00050		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Lead	0.0034		0.00050		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Manganese	0.33		0.00025		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Nickel	0.0035		0.00050		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Selenium	0.00067	0.00025	0.0025	E4	mg/L	1	09/01/2017 1635	09/06/2017 1734	MH
Silver	ND		0.00050		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
Thallium	ND		0.00050		mg/L	1	09/01/2017 1635	09/06/2017 1000	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000094	0.0010	E8	mg/L	1	09/06/2017 1240	09/06/2017 1744	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	29		4.0		mg/L	1	08/28/2017 1205	08/29/2017 1456	MH
Iron	2.6		0.30		mg/L	1	08/28/2017 1205	08/29/2017 1456	MH
Magnesium	ND		3.0		mg/L	1	08/28/2017 1205	08/29/2017 1456	MH
Zinc	0.41		0.040		mg/L	1	08/28/2017 1205	08/29/2017 1456	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	0.0028		0.00050		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH
Arsenic	0.049		0.00050		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0811
Lab Sample ID: 17H0811-01

Client Sample ID: Outfall 1
Collection Date/Time: 08/24/2017 0748
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Beryllium	0.00081		0.00025		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH
Cadmium	0.0043		0.00025		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH
Chromium	0.016		0.00050		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH
Copper	0.11		0.00050		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH
Lead	1.3		0.0050		mg/L	10	08/29/2017 1045	08/31/2017 1132	MH
Manganese	2.8		0.0025		mg/L	10	08/29/2017 1045	08/31/2017 1132	MH
Nickel	0.021		0.00050		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH
Selenium	ND		0.0025		mg/L	1	08/29/2017 1045	08/30/2017 1514	MH
Silver	0.0050		0.00050		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH
Thallium	0.00053		0.00050		mg/L	1	08/29/2017 1045	08/31/2017 1219	MH
CVAA Total Mercury-E245.1									
Mercury	0.0000900	0.000079	0.0010	E4	mg/L	1	08/30/2017 1310	08/30/2017 1751	MH
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	240		10		mg/L	1	08/29/2017 0830	08/30/2017 1640	LH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0811
Date Received: 08/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1708368 - E200.7 (4.4)										
Blank (1708368-BLK1) Prepared: 08/28/2017 Analyzed: 08/29/2017										
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1708368-BS1) Prepared: 08/28/2017 Analyzed: 08/29/2017										
Calcium	10	4.0	mg/L	10.00		101	85-115			
Iron	1.0	0.30	mg/L	1.000		105	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
Zinc	0.48	0.040	mg/L	0.5000		97	85-115			
LCS Dup (1708368-BSD1) Prepared: 08/28/2017 Analyzed: 08/29/2017										
Calcium	9.9	4.0	mg/L	10.00		99	85-115	2	20	
Iron	1.0	0.30	mg/L	1.000		103	85-115	1	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	1	20	
Zinc	0.48	0.040	mg/L	0.5000		96	85-115	1	20	
Matrix Spike (1708368-MS1) Source: 17H0784-01 Prepared: 08/28/2017 Analyzed: 08/29/2017										
Calcium	81	4.0	mg/L	10.00	70	104	70-130			
Iron	2.8	0.30	mg/L	1.000	2.0	78	70-130			
Magnesium	27	3.0	mg/L	10.00	17	99	70-130			
Zinc	0.63	0.040	mg/L	0.5000	0.16	93	70-130			
Matrix Spike (1708368-MS2) Source: 17H0796-02 Prepared: 08/28/2017 Analyzed: 08/29/2017										
Calcium	130	4.0	mg/L	10.00	110	139	70-130			M3
Iron	1.8	0.30	mg/L	1.000	0.64	112	70-130			
Magnesium	58	3.0	mg/L	10.00	47	114	70-130			
Zinc	0.51	0.040	mg/L	0.5000	0.017	98	70-130			
Batch 1708389 - E200.8 (5.4)										
Blank (1708389-BLK1) Prepared: 08/29/2017 Analyzed: 08/30/2017										
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0811
Date Received: 08/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708389 - E200.8 (5.4)										
LCS (1708389-BS1)				Prepared: 08/29/2017 Analyzed: 08/30/2017						
Antimony	0.047	0.00050	mg/L	0.05000		94	85-115			
Arsenic	0.056	0.00050	mg/L	0.05000		111	85-115			
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115			
Chromium	0.051	0.00050	mg/L	0.05000		103	85-115			
Copper	0.050	0.00050	mg/L	0.05000		101	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	0.050	0.00050	mg/L	0.05000		101	85-115			
Selenium	0.23	0.0025	mg/L	0.2500		92	85-115			
Silver	0.049	0.00050	mg/L	0.05000		99	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			
LCS Dup (1708389-BSD1)										
				Prepared: 08/29/2017 Analyzed: 08/30/2017						
Antimony	0.047	0.00050	mg/L	0.05000		94	85-115	0.4	20	
Arsenic	0.055	0.00050	mg/L	0.05000		110	85-115	0.8	20	
Beryllium	0.051	0.00025	mg/L	0.05000		103	85-115	2	20	
Cadmium	0.049	0.00025	mg/L	0.05000		99	85-115	0.4	20	
Chromium	0.052	0.00050	mg/L	0.05000		103	85-115	0.4	20	
Copper	0.051	0.00050	mg/L	0.05000		101	85-115	0.5	20	
Lead	0.048	0.00050	mg/L	0.05000		96	85-115	0.2	20	
Manganese	0.052	0.00025	mg/L	0.05000		103	85-115	1	20	
Nickel	0.048	0.00050	mg/L	0.05000		96	85-115	5	20	
Selenium	0.23	0.0025	mg/L	0.2500		91	85-115	0.04	20	
Silver	0.050	0.00050	mg/L	0.05000		99	85-115	0.3	20	
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115	0.3	20	
Matrix Spike (1708389-MS1)										
				Source: 17H0804-01			Prepared: 08/29/2017 Analyzed: 08/30/2017			
Antimony	0.040	0.00050	mg/L	0.05000	0.00040	79	70-130			
Arsenic	0.061	0.0050	mg/L	0.05000	0.0044	114	70-130			
Beryllium	0.054	0.0025	mg/L	0.05000	0.00016	107	70-130			
Cadmium	0.052	0.0025	mg/L	0.05000	0.000092	104	70-130			
Chromium	0.053	0.0050	mg/L	0.05000	0.0036	100	70-130			
Copper	0.056	0.00050	mg/L	0.05000	0.0091	95	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.0029	94	70-130			
Manganese	0.17	0.0025	mg/L	0.05000	0.14	61	70-130			M7
Nickel	0.053	0.0050	mg/L	0.05000	0.0019	103	70-130			
Selenium	0.22	0.0025	mg/L	0.2500	ND	90	70-130			
Silver	0.049	0.00050	mg/L	0.05000	0.00011	97	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.00013	99	70-130			
Batch 1708401 - E245.1										
Blank (1708401-BLK1)				Prepared & Analyzed: 08/30/2017						
Mercury	ND	0.0010	mg/L							
LCS (1708401-BS1)				Prepared & Analyzed: 08/30/2017						
Mercury	0.0051	0.0010	mg/L	0.005000		101	85-115			

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 17H0811
 Date Received: 08/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708401 - E245.1										
LCS Dup (1708401-BSD1)				Prepared & Analyzed: 08/30/2017						
Mercury	0.0052	0.0010	mg/L	0.005000		105	85-115	3	20	
Matrix Spike (1708401-MS1)				Source: 17H0796-03		Prepared & Analyzed: 08/30/2017				
Mercury	0.0049	0.0010	mg/L	0.005000	ND	99	85-115			
Matrix Spike (1708401-MS2)				Source: 17H0840-01		Prepared & Analyzed: 08/30/2017				
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	85-115			
Matrix Spike Dup (1708401-MSD1)				Source: 17H0796-03		Prepared & Analyzed: 08/30/2017				
Mercury	0.0045	0.0010	mg/L	0.005000	ND	90	85-115	10	20	
Matrix Spike Dup (1708401-MSD2)				Source: 17H0840-01		Prepared & Analyzed: 08/30/2017				
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	85-115	0.4	20	
Batch 1709025 - E 200.7 (4.4)										
Blank (1709025-BLK1)				Prepared & Analyzed: 09/05/2017						
Iron	ND	0.30	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1709025-BS1)				Prepared & Analyzed: 09/05/2017						
Iron	1.0	0.30	mg/L	1.000		105	85-115			
Zinc	0.52	0.040	mg/L	0.5000		103	85-115			
LCS Dup (1709025-BSD1)				Prepared & Analyzed: 09/05/2017						
Iron	1.1	0.30	mg/L	1.000		108	85-115	3	20	
Zinc	0.53	0.040	mg/L	0.5000		106	85-115	3	20	
Matrix Spike (1709025-MS1)				Source: 17H0829-01		Prepared & Analyzed: 09/05/2017				
Iron	2.4	0.30	mg/L	1.000	1.4	106	70-130			
Zinc	0.69	0.040	mg/L	0.5000	0.18	102	70-130			
Matrix Spike (1709025-MS2)				Source: 17H0900-02		Prepared & Analyzed: 09/05/2017				
Iron	1.1	3.0	mg/L	1.000	0.013	106	70-130			
Zinc	17	0.40	mg/L	0.5000	17	NR	70-130			M3
Batch 1709031 - E 200.8 (5.4)										
Blank (1709031-BLK1)				Prepared & Analyzed: 09/06/2017						
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0811
Date Received: 08/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1709031 - E 200.8 (5.4)										
LCS (1709031-BS1)				Prepared & Analyzed: 09/06/2017						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.051	0.00050	mg/L	0.05000		101	85-115			
Copper	0.050	0.00050	mg/L	0.05000		100	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Manganese	0.050	0.00025	mg/L	0.05000		100	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		100	85-115			
Selenium	0.24	0.0025	mg/L	0.2500		97	85-115			
Silver	0.050	0.00050	mg/L	0.05000		101	85-115			
Thallium	0.051	0.00050	mg/L	0.05000		102	85-115			
LCS Dup (1709031-BSD1)				Prepared & Analyzed: 09/06/2017						
Antimony	0.050	0.00050	mg/L	0.05000		99	85-115	0.7	20	
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115	0.8	20	
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115	0.02	20	
Chromium	0.051	0.00050	mg/L	0.05000		101	85-115	0.03	20	
Copper	0.050	0.00050	mg/L	0.05000		101	85-115	0.2	20	
Lead	0.049	0.00050	mg/L	0.05000		99	85-115	0.4	20	
Manganese	0.050	0.00025	mg/L	0.05000		101	85-115	0.2	20	
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Selenium	0.24	0.0025	mg/L	0.2500		97	85-115	0.4	20	
Silver	0.051	0.00050	mg/L	0.05000		101	85-115	0.4	20	
Thallium	0.051	0.00050	mg/L	0.05000		102	85-115	0.1	20	
Matrix Spike (1709031-MS1)				Source: 17H0811-01		Prepared & Analyzed: 09/06/2017				
Antimony	0.050	0.00050	mg/L	0.05000	0.00047	100	70-130			
Arsenic	0.062	0.00050	mg/L	0.05000	0.0029	118	70-130			
Beryllium	0.049	0.00025	mg/L	0.05000	0.000073	98	70-130			
Cadmium	0.051	0.00025	mg/L	0.05000	0.0015	98	70-130			
Chromium	0.050	0.00050	mg/L	0.05000	0.00016	99	70-130			
Copper	0.080	0.00050	mg/L	0.05000	0.033	94	70-130			
Lead	0.053	0.00050	mg/L	0.05000	0.0034	99	70-130			
Manganese	0.38	0.00025	mg/L	0.05000	0.33	89	70-130			
Nickel	0.052	0.00050	mg/L	0.05000	0.0035	97	70-130			
Selenium	0.26	0.0025	mg/L	0.2500	0.00067	105	70-130			
Silver	0.044	0.00050	mg/L	0.05000	0.000050	87	70-130			
Thallium	0.052	0.00050	mg/L	0.05000	0.00011	104	70-130			
Batch 1709046 - E 245.1										
Blank (1709046-BLK1)				Prepared: 08/06/2017 Analyzed: 09/06/2017						
Mercury	ND	0.0010	mg/L							
LCS (1709046-BS1)				Prepared: 08/06/2017 Analyzed: 09/06/2017						
Mercury	0.0048	0.0010	mg/L	0.005000		97	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0811
Date Received: 08/24/2017

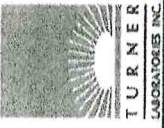
QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1709046 - E 245.1										
LCS Dup (1709046-BSD1)				Prepared: 08/06/2017 Analyzed: 09/06/2017						
Mercury	0.0049	0.0010	mg/L	0.005000		98	85-115	2	20	
Matrix Spike (1709046-MS1)				Source: 17H0804-01		Prepared: 08/06/2017 Analyzed: 09/06/2017				
Mercury	0.0047	0.0010	mg/L	0.005000	ND	94	85-115			
Matrix Spike (1709046-MS2)				Source: 17H0829-01		Prepared: 08/06/2017 Analyzed: 09/06/2017				
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115			
Matrix Spike Dup (1709046-MSD1)				Source: 17H0804-01		Prepared: 08/06/2017 Analyzed: 09/06/2017				
Mercury	0.0035	0.0010	mg/L	0.005000	ND	71	85-115	28	20	M7, R13
Matrix Spike Dup (1709046-MSD2)				Source: 17H0829-01		Prepared: 08/06/2017 Analyzed: 09/06/2017				
Mercury	0.0050	0.0010	mg/L	0.005000	ND	99	85-115	0.8	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0811
Date Received: 08/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708367 - SM2540 D										
Duplicate (1708367-DUP1)		Source: 17H0645-01			Prepared: 08/29/2017 Analyzed: 08/30/2017					
Total Suspended Solids	65	10	mg/L		67			3	5	
Duplicate (1708367-DUP2)		Source: 17H0757-01			Prepared: 08/29/2017 Analyzed: 08/30/2017					
Total Suspended Solids	ND	10	mg/L		0.0				5	



2445 N. Coyote Drive, Suite 104
 Tucson, Arizona 85745
 (520) 882-5880
 Fax: (520) 882-9788
 www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 1710811 DATE 8-24-17 PAGE 1 OF 3

PROJECT NAME: <u>Hermosa Taylor Deposit #</u>		CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX	
CONTACT NAME: <u>Johnny Pappas</u>			
COMPANY NAME: <u>A2 Minerals Inc.</u>			
ADDRESS: <u>3845 N Business Center Dr Suite 115</u>			
CITY: <u>Tucson</u> STATE: <u>AZ</u> ZIP CODE: <u>85705</u>			
PHONE: <u>520-485-1300</u> FAX: _____			
SAMPLER'S SIGNATURE: _____			
NUMBER OF CONTAINERS			
See attached			
SAMPLE I.D.		DATE	TIME
LAB I.D.		SAMPLE MATRIX*	
<u>Outfall 1</u>	<u>8-24-17</u>	<u>7:48</u>	<u>TSS/DIS</u>
<u>Outfall 1</u>	<u>8-24-17</u>	<u>7:48</u>	<u>Metals</u>
			<u>Total</u>
1. RELINQUISHED BY:		2. RECEIVED BY:	
Signature: <u>Sheila Oliver</u>		Signature: <u>Sarah Richman</u>	
Printed Name: <u>A2 Minerals</u>		Printed Name: <u>Sarah Richman</u>	
Firm: <u>8-24-17/7:48am</u>		Firm: <u>AMJ</u>	
Date/Time: <u>8/24/17 7:48am</u>		Date/Time: <u>8/24/17 7:48</u>	
3. RELINQUISHED BY:		4. RECEIVED BY:	
Signature: <u>Sarah Richman</u>		Signature: <u>Joseph Catalano</u>	
Printed Name: <u>AMJ</u>		Printed Name: <u>TURNER LABORATORIES, INC.</u>	
Firm: <u>8/24/17 1023</u>		Firm: <u>8/24/17 1623</u>	
Date/Time: _____		Date/Time: _____	
TURNAROUND REQUIREMENTS:		REPORT REQUIREMENTS:	
Standard (approx. 10 days)*		I. Routine Report _____	
Next day _____ 2 Day _____ 5 Day* _____		II. Report (includes DUP, IMS, MSD, as required, may be charged as samples) _____	
Email Preliminary Results To: _____		III. Date Validation Report (includes All Raw Data) _____	
* Working Days		Add 10% to invoice	
# LEGEND		INVOICE INFORMATION:	
DW = DRINKING WATER		Account _____ Y _____ N	
GW = GROUNDWATER		P.O. # _____	
SD = SOLID		Bill to: _____	
SG = SLUDGE		Total Containers <u>2</u>	
SL = SOIL		Temperature <u>7.3</u>	
ST = STORMWATER		<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice	
WW = WASTEWATER		SPECIAL INSTRUCTIONS/COMMENTS:	
		Compliance Analysis: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Custody Seals <input type="checkbox"/> Preservation Confirmation <input checked="" type="checkbox"/>	
		ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Container Intact <input checked="" type="checkbox"/> Appropriate Head Space <input type="checkbox"/>	
		Mail ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> COC/Labels Agree <input type="checkbox"/> Received Within Hold Time <input checked="" type="checkbox"/>	

STORMWATER SAMPLE FORM

Field Staff Sheila Oliver

Company AZ minerals

Weather Sunny, clear

Notes _____

Rainfall (inches) .6 in

Sample Location	Sample ID	Flow (gpm)	Sample Date	Time Sampled	Temp °C	pH	Specific Conductivity (µs/cm)	Turbidity (NTU)	Appearance of Water: (color, odor, etc) or other notes
outfall 0	8-24-17	—	8-24-17	7:48am	19.8°C	6.43	323	982.0	Discolored, brown, no odor

Sample Laboratory Information

Container Volume	No of Containers	Filtered Y/N	Preservative	Lab Analysis	Meter:
500ml	1	N	N	TSS/DIS	pH: YSI professional plus Turbidity: MICROTPW 60692
250ml	1	N	Y	Total	Calibration Date: pH 8-24-17 Turb 8-24-17

Dissolved Metals - Filter (0.45 micron filter) prior to placing into 250 ml container with nitric acid preservative.
 Total Metals - 250 ml container with nitric acid preservative.
 TSS, Hardness (Calcium, Magnesium) - 250 ml container with NO preservative.

Stormwater Sampling Parameters

Analyte	ICP/MS	Total	Dissolved	Analytical Method	MDL
pH ¹	Field				
Hardness (CaCO ₃ ; calc. from Ca, Mg)		X		E200.7	
TSS		X		SM2540	
Antimony	X	X	X	E200.8	0.000029
Arsenic	X	X	X	E200.8	0.000034
Beryllium	X	X	X	E200.8	0.000021
Cadmium	X	X	X	E200.8	0.000018
Chromium	X	X	X	E200.8	0.000036
Copper	X	X	X	E200.8	0.000083
Iron	X	X	X	E200.7	0.0044
Lead	X	X	X	E200.8	0.000031
Manganese	X	X	X	E200.8	0.000034
Mercury	X	X	X	E245.1	0.000094
Nickel	X	X	X	E200.8	0.000083
Selenium	X	X	X	E200.8	0.00016
Silver	X	X	X	E200.8	0.000029
Thallium	X	X	X	E200.8	0.000028
Zinc	X	X	X	E200.7	0.0065
¹ pH, Temp, Cond, and Turbidty are Field Measurements					



August 08, 2017

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

TEL (802) 235-5563
FAX

RE: Storm Water

Work Order No.: 17G0659
Order Name: Hermosa Taylor
Deposits

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 07/24/2017 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: Storm Water
Work Order: 17G0659
Date Received: 07/24/2017

Order: Hermosa Taylor Deposits

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
17G0659-01	Outfall 2	Storm Water	07/24/2017 0732

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0659
Date Received: 07/24/2017

Case Narrative

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.

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: Storm Water
Work Order: 17G0659
Lab Sample ID: 17G0659-01

Client Sample ID: Outfall 2
Collection Date/Time: 07/24/2017 0732
Matrix: Storm Water
Order Name: Hermosa Taylor Deposits

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

Hardness, Calcium/Magnesium (As CaCO3)	110				mg/L	1	07/25/2017 1200	07/26/2017 1306	MH
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ICP Dissolved Metals-E 200.7 (4.4)

Iron	ND		0.30		mg/L	1	07/28/2017 0935	07/28/2017 1148	MH
Magnesium	14		3.0		mg/L	1	07/28/2017 0935	07/28/2017 1148	MH
Zinc	0.095		0.040		mg/L	1	07/28/2017 0935	07/28/2017 1148	MH

ICP/MS Dissolved Metals-E 200.8 (5.4)

Antimony	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Arsenic	0.0017		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Beryllium	ND		0.00025		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Cadmium	0.00039		0.00025		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Chromium	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Copper	0.0020		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Lead	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Manganese	0.27		0.00025		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Nickel	0.0012		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Selenium	0.00045	0.00025	0.0025	E4	mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Silver	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH
Thallium	ND		0.00050		mg/L	1	07/28/2017 0935	08/03/2017 1031	MH

CVAA Dissolved Mercury-E 245.1

Mercury	ND	0.000094	0.0010	E8	mg/L	1	08/07/2017 1300	08/07/2017 1935	MH
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ICP Total Metals-E200.7 (4.4)

Calcium	20		4.0		mg/L	1	07/25/2017 1200	07/26/2017 1306	MH
Iron	1.8		0.30		mg/L	1	07/25/2017 1200	07/26/2017 1306	MH
Magnesium	14		3.0		mg/L	1	07/25/2017 1200	07/26/2017 1306	MH
Zinc	0.13		0.040		mg/L	1	07/25/2017 1200	07/26/2017 1307	MH

ICP/MS Total Metals-E200.8 (5.4)

Antimony	ND		0.00050		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
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Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0659
Lab Sample ID: 17G0659-01

Client Sample ID: Outfall 2
Collection Date/Time: 07/24/2017 0732
Matrix: Storm Water
Order Name: Hermosa Taylor Deposits

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Arsenic	0.0043		0.00050		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Beryllium	ND		0.00025		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Cadmium	0.00046		0.00025		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Chromium	0.0024		0.00050		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Copper	0.0057		0.00050		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Lead	0.018		0.00050		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Manganese	0.52		0.00025		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Nickel	0.0021		0.00050		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Selenium	0.00033	0.00025	0.0025	E4	mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Silver	ND		0.00050		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
Thallium	ND		0.00050		mg/L	1	07/27/2017 1030	07/31/2017 1102	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	07/27/2017 1145	07/27/2017 1558	MH
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	22		10		mg/L	1	07/28/2017 0850	07/31/2017 1340	LH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0659
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1707266 - E200.7 (4.4)										
Blank (1707266-BLK1) Prepared: 07/25/2017 Analyzed: 07/26/2017										
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1707266-BS1) Prepared: 07/25/2017 Analyzed: 07/26/2017										
Calcium	9.7	4.0	mg/L	10.00		97	85-115			
Iron	0.99	0.30	mg/L	1.000		99	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Zinc	0.47	0.040	mg/L	0.5000		94	85-115			
LCS Dup (1707266-BSD1) Prepared: 07/25/2017 Analyzed: 07/26/2017										
Calcium	9.6	4.0	mg/L	10.00		96	85-115	0.8	20	
Iron	0.98	0.30	mg/L	1.000		98	85-115	0.8	20	
Magnesium	9.7	3.0	mg/L	10.00		97	85-115	0.8	20	
Zinc	0.47	0.040	mg/L	0.5000		93	85-115	0.7	20	
Matrix Spike (1707266-MS1) Source: 17G0681-01 Prepared: 07/25/2017 Analyzed: 07/26/2017										
Calcium	54	4.0	mg/L	10.00	45	86	70-130			
Iron	1.2	0.30	mg/L	1.000	0.27	98	70-130			
Magnesium	12	3.0	mg/L	10.00	2.0	97	70-130			
Zinc	0.53	0.040	mg/L	0.5000	0.047	96	70-130			
Batch 1707291 - E245.1										
Blank (1707291-BLK1) Prepared & Analyzed: 07/27/2017										
Mercury	ND	0.0010	mg/L							
LCS (1707291-BS1) Prepared & Analyzed: 07/27/2017										
Mercury	0.0053	0.0010	mg/L	0.005000		105	85-115			
LCS Dup (1707291-BSD1) Prepared & Analyzed: 07/27/2017										
Mercury	0.0053	0.0010	mg/L	0.005000		105	85-115	0.3	20	
Matrix Spike (1707291-MS1) Source: 17G0718-01 Prepared & Analyzed: 07/27/2017										
Mercury	0.0051	0.0010	mg/L	0.005000	ND	101	85-115			
Matrix Spike Dup (1707291-MSD1) Source: 17G0718-01 Prepared & Analyzed: 07/27/2017										
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115	1	20	
Batch 1707293 - E200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0659
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1707293 - E200.8 (5.4)										
Blank (1707293-BLK1)										
					Prepared: 07/27/2017 Analyzed: 07/31/2017					
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1707293-BS1)										
					Prepared: 07/27/2017 Analyzed: 07/31/2017					
Antimony	0.048	0.00050	mg/L	0.05000		95	85-115			
Arsenic	0.049	0.00050	mg/L	0.05000		97	85-115			
Beryllium	0.051	0.00025	mg/L	0.05000		102	85-115			
Cadmium	0.047	0.00025	mg/L	0.05000		94	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	0.048	0.00050	mg/L	0.05000		96	85-115			
Manganese	0.046	0.00025	mg/L	0.05000		93	85-115			
Nickel	0.043	0.00050	mg/L	0.05000		87	85-115			
Selenium	0.25	0.0025	mg/L	0.2500		98	85-115			
Silver	0.048	0.00050	mg/L	0.05000		97	85-115			
Thallium	0.048	0.00050	mg/L	0.05000		95	85-115			
LCS Dup (1707293-BSD1)										
					Prepared: 07/27/2017 Analyzed: 07/31/2017					
Antimony	0.048	0.00050	mg/L	0.05000		96	85-115	1	20	
Arsenic	0.049	0.00050	mg/L	0.05000		98	85-115	0.3	20	
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115	0.9	20	
Cadmium	0.047	0.00025	mg/L	0.05000		95	85-115	0.3	20	
Chromium	0.050	0.00050	mg/L	0.05000		99	85-115	1	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Lead	0.048	0.00050	mg/L	0.05000		96	85-115	0.6	20	
Manganese	0.046	0.00025	mg/L	0.05000		91	85-115	2	20	
Nickel	0.043	0.00050	mg/L	0.05000		87	85-115	0.06	20	
Selenium	0.24	0.0025	mg/L	0.2500		97	85-115	1	20	
Silver	0.049	0.00050	mg/L	0.05000		97	85-115	0.5	20	
Thallium	0.048	0.00050	mg/L	0.05000		95	85-115	0.2	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0659
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch 1707293 - E200.8 (5.4)

Matrix Spike (1707293-MS1)		Source: 17G0659-01		Prepared: 07/27/2017 Analyzed: 07/31/2017						
Antimony	0.045	0.00050	mg/L	0.05000	0.00046	88	70-130			
Arsenic	0.053	0.00050	mg/L	0.05000	0.0043	97	70-130			
Beryllium	0.048	0.00025	mg/L	0.05000	0.000051	96	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.00046	94	70-130			
Chromium	0.051	0.00050	mg/L	0.05000	0.0024	97	70-130			
Copper	0.052	0.00050	mg/L	0.05000	0.0057	93	70-130			
Lead	0.065	0.00050	mg/L	0.05000	0.018	93	70-130			
Manganese	0.56	0.00025	mg/L	0.05000	0.52	80	70-130			
Nickel	0.047	0.00050	mg/L	0.05000	0.0021	90	70-130			
Selenium	0.24	0.0025	mg/L	0.2500	0.00033	98	70-130			
Silver	0.047	0.00050	mg/L	0.05000	0.00020	94	70-130			
Thallium	0.047	0.00050	mg/L	0.05000	ND	94	70-130			

Batch 1707299 - E 200.7 (4.4)

Blank (1707299-BLK1)				Prepared & Analyzed: 07/28/2017						
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							

LCS (1707299-BS1)				Prepared & Analyzed: 07/28/2017						
Iron	1.0	0.30	mg/L	1.000		102	85-115			
Magnesium	10	3.0	mg/L	10.00		104	85-115			
Zinc	0.52	0.040	mg/L	0.5000		104	85-115			

LCS Dup (1707299-BSD1)				Prepared & Analyzed: 07/28/2017						
Iron	1.0	0.30	mg/L	1.000		101	85-115	0.2	20	
Magnesium	10	3.0	mg/L	10.00		104	85-115	0.4	20	
Zinc	0.52	0.040	mg/L	0.5000		104	85-115	0.3	20	

Matrix Spike (1707299-MS1)		Source: 17G0658-01		Prepared & Analyzed: 07/28/2017						
Iron	1.1	0.30	mg/L	1.000	0.025	103	70-130			
Magnesium	34	3.0	mg/L	10.00	25	94	70-130			
Zinc	0.65	0.040	mg/L	0.5000	0.15	100	70-130			

Batch 1708028 - E 200.8 (5.4)

Blank (1708028-BLK1)				Prepared & Analyzed: 08/03/2017						
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0659
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708028 - E 200.8 (5.4)										
LCS (1708028-BS1)				Prepared & Analyzed: 08/03/2017						
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.049	0.00050	mg/L	0.05000		98	85-115			
Copper	0.049	0.00050	mg/L	0.05000		99	85-115			
Lead	0.050	0.00050	mg/L	0.05000		99	85-115			
Manganese	0.049	0.00025	mg/L	0.05000		98	85-115			
Nickel	0.049	0.00050	mg/L	0.05000		99	85-115			
Selenium	0.25	0.0025	mg/L	0.2500		100	85-115			
Silver	0.049	0.00050	mg/L	0.05000		98	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115			
LCS Dup (1708028-BSD1)										
				Prepared & Analyzed: 08/03/2017						
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115	1	20	
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115	2	20	
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115	0.2	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	0.6	20	
Chromium	0.049	0.00050	mg/L	0.05000		99	85-115	0.6	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		98	85-115	1	20	
Manganese	0.049	0.00025	mg/L	0.05000		98	85-115	0.4	20	
Nickel	0.049	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Selenium	0.25	0.0025	mg/L	0.2500		101	85-115	0.3	20	
Silver	0.049	0.00050	mg/L	0.05000		98	85-115	0.07	20	
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Matrix Spike (1708028-MS1)										
				Source: 17G0659-01			Prepared & Analyzed: 08/03/2017			
Antimony	0.048	0.00050	mg/L	0.05000	0.00017	96	70-130			
Arsenic	0.053	0.00050	mg/L	0.05000	0.0017	102	70-130			
Beryllium	0.048	0.00025	mg/L	0.05000	0.000018	96	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.00039	96	70-130			
Chromium	0.047	0.00050	mg/L	0.05000	ND	94	70-130			
Copper	0.048	0.00050	mg/L	0.05000	0.0020	91	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.00018	96	70-130			
Manganese	0.31	0.00025	mg/L	0.05000	0.27	73	70-130			
Nickel	0.047	0.00050	mg/L	0.05000	0.0012	92	70-130			
Selenium	0.27	0.0025	mg/L	0.2500	0.00045	108	70-130			
Silver	0.044	0.00050	mg/L	0.05000	ND	88	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.000030	96	70-130			
Batch 1708087 - E 245.1										
Blank (1708087-BLK1)				Prepared & Analyzed: 08/07/2017						
Mercury	ND	0.0010	mg/L							
LCS (1708087-BS1)				Prepared & Analyzed: 08/07/2017						
Mercury	0.0054	0.0010	mg/L	0.005000		107	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0659
Date Received: 07/24/2017

QC Summary

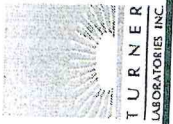
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708087 - E 245.1										
LCS Dup (1708087-BSD1)				Prepared & Analyzed: 08/07/2017						
Mercury	0.0054	0.0010	mg/L	0.005000		109	85-115	1	20	
Matrix Spike (1708087-MS1)				Source: 17G0659-01		Prepared & Analyzed: 08/07/2017				
Mercury	0.0052	0.0010	mg/L	0.005000	ND	104	85-115			
Matrix Spike Dup (1708087-MSD1)				Source: 17G0659-01		Prepared & Analyzed: 08/07/2017				
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17G0659
Date Received: 07/24/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1707298 - SM2540 D										
Duplicate (1707298-DUP1)		Source: 17G0337-01			Prepared: 07/28/2017 Analyzed: 07/31/2017					
Total Suspended Solids	1.0	10	mg/L		1.0			0	5	
Duplicate (1707298-DUP2)		Source: 17G0678-01			Prepared: 07/28/2017 Analyzed: 07/31/2017					
Total Suspended Solids	200	10	mg/L		200			3	5	

2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 17G0659 DATE 7/24/17 PAGE 1 OF 3

PROJECT NAME Hermosa Taylor Depple
 CONTACT NAME: Johnny Pappas
 COMPANY NAME: Arizona Mining
 ADDRESS: 3845 N Business Dr. suite 115
 CITY: Tucson STATE AZ ZIP CODE 85705
 PHONE 520-458-1300 FAX _____
 SAMPLER'S SIGNATURE [Signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX	
Out Fall 2	7-24-17	7:30		DIS			
Out Fall 2	7-24-17	7:30		Total			
Out Fall 2	7-24-17	7:30		TSS			

See attached

1. RELINQUISHED BY: Signature Andrew Cunningham Printed Name Andrew Cunningham Firm APC Minerals Inc. Date/Time 7-24-17 14:32

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

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

4. RECEIVED BY: Signature Joseph Catalan Printed Name Joseph Catalan Firm TURNER LABORATORIES, INC. Date/Time 7/24/17 1422

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

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

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

INVOICE INFORMATION:
 Account # _____ Y _____ N
 P.O. # _____
 Bill to: _____

SAMPLE RECEIPT:
 Total Containers 3
 Temperature 7.5
 Wet Ice Blue Ice

SPECIAL INSTRUCTIONS/COMMENTS:
 Compliance Analysis: Yes No Custody Seals Yes No Preservation Confirmation
 ADEQ Forms: Yes No Container Intact Yes No Appropriate Head Space
 Mail ADEQ Forms: Yes No COC/Labels Agree Yes No Received Within Hold Time

STORMWATER SAMPLE FORM

Field Staff Andrew Cunningham

Company Arizona Mining

Weather Partly cloudy

Notes _____

Rainfall (inches) .05

Sample Location	Sample ID	Flow (gpm)	Sample Date	Time Sampled	Temp °C	pH	Specific Conductivity (µs/cm)	Turbidity (NTU)	Appearance of Water: (color, odor, etc) or other notes
outfall 2	7/24/17	10 gpm	7/24/17	7:32	20.8	5.78	286.4	49.29	Murky, slight discoloration, odor

Sample Laboratory Information

Container Volume	No of Containers	Filtered Y/N	Preservative	Lab Analysis	Meter:
250 ml	1	N	Y	Total	pH: Geotech YSI Professional Pro
500 ml	1	N	N	DIS & TSS	Turbidity: Micro TFW 60692

Water Quality Meter

Calibration Date:

pH 7-24-17

turbidity 7-24-17

Dissolved Metals - Filter (0.45 micron filter) prior to placing into 250 ml container with nitric acid preservative.

Total Metals - 250 ml container with nitric acid preservative.

TSS, Hardness (Calcium, Magnesium) - 250 ml container with NO preservative.

Stormwater Sampling Parameters					
Analyte	ICP/MS	Total	Dissolved	Analytical Method	MDL
pH ¹	Field				
Hardness (CaCO ₃ ; calc. from Ca, Mg)		X		E200.7	
TSS		X		SM2540	
Antimony	X	X	X	E200.8	0.000029
Arsenic	X	X	X	E200.8	0.000034
Beryllium	X	X	X	E200.8	0.000021
Cadmium	X	X	X	E200.8	0.000018
Chromium	X	X	X	E200.8	0.000036
Copper	X	X	X	E200.8	0.000083
Iron	X	X	X	E200.7	0.0044
Lead	X	X	X	E200.8	0.000031
Manganese	X	X	X	E200.8	0.000034
Mercury	X	X	X	E245.1	0.000094
Nickel	X	X	X	E200.8	0.000083
Selenium	X	X	X	E200.8	0.00016
Silver	X	X	X	E200.8	0.000029
Thallium	X	X	X	E200.8	0.000028
Zinc	X	X	X	E200.7	0.0065

¹pH, Temp, Cond, and Turbidity are Field Measurements

Dis 500ml
Total P



August 21, 2017

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

TEL (802) 235-5563
FAX

Work Order No.: 17H0077

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 08/01/2017 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: Storm Water
Work Order: 17H0077
Date Received: 08/01/2017

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
17H0077-01	Outfall 2	Storm Water	08/01/2017 0811

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0077
Date Received: 08/01/2017

Case Narrative

- 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.
- L5 The associated blank spike recovery was above laboratory/method acceptance limits. This 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.
- V1 CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

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: Storm Water
Work Order: 17H0077
Lab Sample ID: 17H0077-01

Client Sample ID: Outfall 2
Collection Date/Time: 08/01/2017 0811
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1500				mg/L	1	08/09/2017 1155	08/10/2017 1542	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	ND		0.30		mg/L	1	08/10/2017 1640	08/16/2017 1659	MH
Zinc	0.81		0.040		mg/L	1	08/10/2017 1640	08/16/2017 1659	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Arsenic	0.00093		0.00050		mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Beryllium	ND		0.00025	V1	mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Cadmium	0.0036		0.00025		mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Chromium	ND		0.00050		mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Copper	0.0038		0.00050		mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Lead	ND		0.00050		mg/L	1	08/10/2017 1640	08/16/2017 1243	MH
Manganese	1.9		0.013		mg/L	50	08/10/2017 1640	08/14/2017 1524	MH
Nickel	0.023		0.00050		mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Selenium	0.0018	0.00025	0.0025	E4	mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Silver	ND		0.00050		mg/L	1	08/10/2017 1640	08/14/2017 1406	MH
Thallium	ND		0.00050		mg/L	1	08/10/2017 1640	08/16/2017 1243	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000094	0.0010	E8	mg/L	1	08/11/2017 1245	08/11/2017 1740	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	240		4.0		mg/L	1	08/09/2017 1155	08/10/2017 1542	MH
Iron	ND		0.30		mg/L	1	08/09/2017 1155	08/10/2017 1543	MH
Magnesium	220		3.0		mg/L	1	08/09/2017 1155	08/10/2017 1542	MH
Zinc	0.86		0.040		mg/L	1	08/09/2017 1155	08/10/2017 1543	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Arsenic	ND		0.00050		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0077
Lab Sample ID: 17H0077-01

Client Sample ID: Outfall 2
Collection Date/Time: 08/01/2017 0811
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Beryllium	ND		0.00025		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Cadmium	0.0036		0.00025		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Chromium	0.0014		0.00050		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Copper	0.0038		0.00050		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Lead	0.00054		0.00050		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Manganese	1.9		0.0025		mg/L	10	08/04/2017 1210	08/08/2017 1349	MH
Nickel	0.018		0.00050		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Selenium	0.0027		0.0025		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Silver	ND		0.00050		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
Thallium	ND		0.00050		mg/L	1	08/04/2017 1210	08/08/2017 1240	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	08/09/2017 1215	08/09/2017 1638	MH
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	ND		10		mg/L	1	08/02/2017 1210	08/04/2017 1210	LH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0077
Date Received: 08/01/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1708081 - E200.8 (5.4)										
Blank (1708081-BLK1)										
					Prepared: 08/04/2017 Analyzed: 08/08/2017					
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1708081-BS1)										
					Prepared: 08/04/2017 Analyzed: 08/08/2017					
Antimony	0.049	0.00050	mg/L	0.05000		97	85-115			
Arsenic	0.047	0.00050	mg/L	0.05000		93	85-115			
Beryllium	0.046	0.00025	mg/L	0.05000		92	85-115			
Cadmium	0.048	0.00025	mg/L	0.05000		95	85-115			
Chromium	0.046	0.00050	mg/L	0.05000		92	85-115			
Copper	0.049	0.00050	mg/L	0.05000		97	85-115			
Lead	0.048	0.00050	mg/L	0.05000		97	85-115			
Manganese	0.045	0.00025	mg/L	0.05000		90	85-115			
Nickel	0.046	0.00050	mg/L	0.05000		93	85-115			
Selenium	0.23	0.0025	mg/L	0.2500		93	85-115			
Silver	0.048	0.00050	mg/L	0.05000		96	85-115			
Thallium	0.048	0.00050	mg/L	0.05000		96	85-115			
LCS Dup (1708081-BSD1)										
					Prepared: 08/04/2017 Analyzed: 08/08/2017					
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115	0.3	20	
Arsenic	0.047	0.00050	mg/L	0.05000		94	85-115	0.4	20	
Beryllium	0.047	0.00025	mg/L	0.05000		94	85-115	1	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	1	20	
Chromium	0.044	0.00050	mg/L	0.05000		89	85-115	4	20	
Copper	0.051	0.00050	mg/L	0.05000		102	85-115	5	20	
Lead	0.047	0.00050	mg/L	0.05000		95	85-115	2	20	
Manganese	0.044	0.00025	mg/L	0.05000		87	85-115	3	20	
Nickel	0.048	0.00050	mg/L	0.05000		96	85-115	3	20	
Selenium	0.23	0.0025	mg/L	0.2500		93	85-115	0.2	20	
Silver	0.049	0.00050	mg/L	0.05000		97	85-115	2	20	
Thallium	0.047	0.00050	mg/L	0.05000		94	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0077
Date Received: 08/01/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708081 - E200.8 (5.4)										
Matrix Spike (1708081-MS1)		Source: 17H0179-01			Prepared: 08/04/2017 Analyzed: 08/08/2017					
Antimony	0.047	0.00050	mg/L	0.05000	0.00011	93	70-130			
Arsenic	0.073	0.00050	mg/L	0.05000	0.026	94	70-130			
Beryllium	0.047	0.00025	mg/L	0.05000	0.000034	93	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	ND	95	70-130			
Chromium	0.061	0.00050	mg/L	0.05000	0.0021	119	70-130			
Copper	0.060	0.00050	mg/L	0.05000	0.015	90	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.0018	101	70-130			
Manganese	0.15	0.00025	mg/L	0.05000	0.10	104	70-130			
Nickel	0.059	0.00050	mg/L	0.05000	0.0012	116	70-130			
Selenium	0.23	0.0025	mg/L	0.2500	0.00094	92	70-130			
Silver	0.044	0.00050	mg/L	0.05000	0.000029	88	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.000073	101	70-130			
Batch 1708120 - E245.1										
Blank (1708120-BLK1)		Prepared & Analyzed: 08/09/2017								
Mercury	ND	0.0010	mg/L							
LCS (1708120-BS1)		Prepared & Analyzed: 08/09/2017								
Mercury	0.0061	0.0010	mg/L	0.005000		121	85-115			L5
LCS Dup (1708120-BSD1)		Prepared & Analyzed: 08/09/2017								
Mercury	0.0053	0.0010	mg/L	0.005000		106	85-115	13		20
Matrix Spike (1708120-MS1)		Source: 17G0815-01			Prepared & Analyzed: 08/09/2017					
Mercury	0.0054	0.0010	mg/L	0.005000	ND	108	85-115			
Matrix Spike (1708120-MS2)		Source: 17G0816-01			Prepared & Analyzed: 08/09/2017					
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115			
Matrix Spike Dup (1708120-MSD1)		Source: 17G0815-01			Prepared & Analyzed: 08/09/2017					
Mercury	0.0052	0.0010	mg/L	0.005000	ND	103	85-115	4		20
Matrix Spike Dup (1708120-MSD2)		Source: 17G0816-01			Prepared & Analyzed: 08/09/2017					
Mercury	0.0054	0.0010	mg/L	0.005000	ND	108	85-115	2		20
Batch 1708132 - E200.7 (4.4)										
Blank (1708132-BLK1)		Prepared: 08/09/2017 Analyzed: 08/10/2017								
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1708132-BS1)		Prepared: 08/09/2017 Analyzed: 08/10/2017								
Calcium	10	4.0	mg/L	10.00		100	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			
Zinc	0.48	0.040	mg/L	0.5000		97	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0077
Date Received: 08/01/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708132 - E200.7 (4.4)										
LCS Dup (1708132-BSD1)				Prepared: 08/09/2017 Analyzed: 08/10/2017						
Calcium	11	4.0	mg/L	10.00		112	85-115	11	20	
Iron	1.0	0.30	mg/L	1.000		104	85-115	2	20	
Magnesium	10	3.0	mg/L	10.00		103	85-115	3	20	
Zinc	0.50	0.040	mg/L	0.5000		99	85-115	3	20	
Matrix Spike (1708132-MS1)				Source: 17G0806-02		Prepared: 08/09/2017 Analyzed: 08/10/2017				
Calcium	9.9	4.0	mg/L	10.00	ND	99	70-130			
Iron	1.0	0.30	mg/L	1.000	ND	101	70-130			
Magnesium	9.9	3.0	mg/L	10.00	ND	99	70-130			
Zinc	0.48	0.040	mg/L	0.5000	ND	95	70-130			
Matrix Spike (1708132-MS3)				Source: 17H0195-02		Prepared: 08/09/2017 Analyzed: 08/10/2017				
Calcium	190	4.0	mg/L	10.00	180	63	70-130			M3
Iron	1.5	0.30	mg/L	1.000	0.60	92	70-130			
Magnesium	49	3.0	mg/L	10.00	40	91	70-130			
Zinc	0.71	0.040	mg/L	0.5000	0.21	99	70-130			
Batch 1708162 - E 245.1										
Blank (1708162-BLK1)				Prepared & Analyzed: 08/11/2017						
Mercury	ND	0.0010	mg/L							
LCS (1708162-BS1)				Prepared & Analyzed: 08/11/2017						
Mercury	0.0054	0.0010	mg/L	0.005000		108	85-115			
LCS Dup (1708162-BSD1)				Prepared & Analyzed: 08/11/2017						
Mercury	0.0054	0.0010	mg/L	0.005000		108	85-115	0.8	20	
Matrix Spike (1708162-MS1)				Source: 17H0162-01		Prepared & Analyzed: 08/11/2017				
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115			
Matrix Spike Dup (1708162-MSD1)				Source: 17H0162-01		Prepared & Analyzed: 08/11/2017				
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115	0.3	20	
Batch 1708169 - E 200.7 (4.4)										
Blank (1708169-BLK1)				Prepared: 08/14/2017 Analyzed: 08/16/2017						
Iron	ND	0.30	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1708169-BS1)				Prepared: 08/14/2017 Analyzed: 08/16/2017						
Iron	0.95	0.30	mg/L	1.000		95	85-115			
Zinc	0.46	0.040	mg/L	0.5000		93	85-115			
LCS Dup (1708169-BSD1)				Prepared: 08/14/2017 Analyzed: 08/16/2017						
Iron	0.95	0.30	mg/L	1.000		95	85-115	0.4	20	
Zinc	0.48	0.040	mg/L	0.5000		95	85-115	3	20	
Matrix Spike (1708169-MS1)				Source: 17H0077-01		Prepared: 08/14/2017 Analyzed: 08/16/2017				
Iron	0.95	0.30	mg/L	1.000	ND	95	70-130			
Zinc	1.3	0.040	mg/L	0.5000	0.81	95	70-130			
Batch 1708171 - E 200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0077
Date Received: 08/01/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1708171 - E 200.8 (5.4)										
Blank (1708171-BLK1)										
Prepared & Analyzed: 08/14/2017										
Antimony	ND	0.00050	mg/L							
Arsenic	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							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1708171-BS1)										
Prepared & Analyzed: 08/14/2017										
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115			
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		99	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		100	85-115			
Copper	0.050	0.00050	mg/L	0.05000		101	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Manganese	0.050	0.00025	mg/L	0.05000		101	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		100	85-115			
Selenium	0.25	0.0025	mg/L	0.2500		102	85-115			
Silver	0.050	0.00050	mg/L	0.05000		99	85-115			
Thallium	0.050	0.00050	mg/L	0.05000		100	85-115			
LCS Dup (1708171-BSD1)										
Prepared & Analyzed: 08/14/2017										
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115	0.2	20	
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115	0.03	20	
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115	0.5	20	
Cadmium	0.051	0.00025	mg/L	0.05000		101	85-115	0.5	20	
Chromium	0.051	0.00050	mg/L	0.05000		101	85-115	1	20	
Copper	0.050	0.00050	mg/L	0.05000		101	85-115	0.04	20	
Lead	0.051	0.00050	mg/L	0.05000		101	85-115	1	20	
Manganese	0.051	0.00025	mg/L	0.05000		101	85-115	0.6	20	
Nickel	0.050	0.00050	mg/L	0.05000		101	85-115	1	20	
Selenium	0.25	0.0025	mg/L	0.2500		102	85-115	0.2	20	
Silver	0.050	0.00050	mg/L	0.05000		99	85-115	0.4	20	
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115	1	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0077
Date Received: 08/01/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708171 - E 200.8 (5.4)										
Matrix Spike (1708171-MS1)		Source: 17H0162-01			Prepared & Analyzed: 08/14/2017					
Antimony	0.050	0.00050	mg/L	0.05000	0.00015	99	70-130			
Arsenic	0.051	0.00050	mg/L	0.05000	0.00051	102	70-130			
Beryllium	0.046	0.00025	mg/L	0.05000	0.000019	91	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	ND	93	70-130			
Chromium	0.048	0.00050	mg/L	0.05000	0.000089	95	70-130			
Copper	0.044	0.00050	mg/L	0.05000	0.00081	86	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.00019	103	70-130			
Manganese	0.18	0.00025	mg/L	0.05000	0.12	107	70-130			
Nickel	0.046	0.00050	mg/L	0.05000	0.0017	89	70-130			
Selenium	0.27	0.0025	mg/L	0.2500	0.0025	105	70-130			
Silver	0.039	0.00050	mg/L	0.05000	ND	78	70-130			
Thallium	0.052	0.00050	mg/L	0.05000	ND	103	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 17H0077
Date Received: 08/01/2017

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1708021 - SM2540 D										
Duplicate (1708021-DUP1)		Source: 17G0691-01			Prepared: 08/02/2017 Analyzed: 08/04/2017					
Total Suspended Solids	180	10	mg/L		180			2	5	
Duplicate (1708021-DUP2)		Source: 17H0078-01			Prepared: 08/02/2017 Analyzed: 08/04/2017					
Total Suspended Solids	430	10	mg/L		420			3	5	

Stormwater Sampling Parameters					
Analyte	ICP/MS	Total	Dissolved	Analytical Method	MDL
pH ¹	Field				
Hardness (CaCO ₃ ; calc. from Ca, Mg)		X		E200.7	
TSS		X		SM2540	
Antimony	X	X	X	E200.8	0.000029
Arsenic	X	X	X	E200.8	0.000034
Beryllium	X	X	X	E200.8	0.000021
Cadmium	X	X	X	E200.8	0.000018
Chromium	X	X	X	E200.8	0.000036
Copper	X	X	X	E200.8	0.000083
Iron	X	X	X	E200.7	0.0044
Lead	X	X	X	E200.8	0.000031
Manganese	X	X	X	E200.8	0.000034
Mercury	X	X	X	E245.1	0.000094
Nickel	X	X	X	E200.8	0.000083
Selenium	X	X	X	E200.8	0.00016
Silver	X	X	X	E200.8	0.000029
Thallium	X	X	X	E200.8	0.000028
Zinc	X	X	X	E200.7	0.0065

¹pH, Temp, Cond, and Turbidity are Field Measurements



January 16, 2019

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

TEL (802) 235-5563
FAX

Work Order No.: 19A0116

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 01/07/2019 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: Storm Water
Work Order: 19A0116
Date Received: 01/07/2019

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
19A0116-01	Outfall #1	Storm Water	01/07/2019 0900
19A0116-02	Outfall #2	Storm Water	01/07/2019 0840

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19A0116
Date Received: 01/07/2019

Case Narrative

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: Storm Water
Work Order: 19A0116
Lab Sample ID: 19A0116-01

Client Sample ID: Outfall #1
Collection Date/Time: 01/07/2019 0900
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	59		22		mg/L	1	01/10/2019 0940	01/10/2019 1521	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	70				mg/L	1	01/10/2019 1120	01/11/2019 1311	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	17		4.0		mg/L	1	01/10/2019 0940	01/10/2019 1521	MH
Magnesium	4.2		3.0		mg/L	1	01/10/2019 0940	01/10/2019 1521	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0049		0.00050		mg/L	1	01/10/2019 0940	01/11/2019 1526	MH
Cadmium	ND		0.00025		mg/L	1	01/10/2019 0940	01/11/2019 1526	MH
Copper	0.0066		0.00050		mg/L	1	01/10/2019 0940	01/11/2019 1526	MH
Lead	0.00085		0.00050		mg/L	1	01/10/2019 0940	01/11/2019 1526	MH
Zinc	ND		0.040		mg/L	1	01/10/2019 0940	01/11/2019 1526	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	19		4.0		mg/L	1	01/10/2019 1120	01/11/2019 1311	MH
Magnesium	5.2		3.0		mg/L	1	01/10/2019 1120	01/11/2019 1311	MH
ICP/MS Total Metals-E200.8 (5.4)									
Arsenic	0.0056		0.00050		mg/L	1	01/09/2019 1045	01/10/2019 1142	MH
Cadmium	ND		0.00025		mg/L	1	01/09/2019 1045	01/10/2019 1142	MH
Copper	0.0095		0.00050		mg/L	1	01/09/2019 1045	01/10/2019 1142	MH
Lead	0.0087		0.00050		mg/L	1	01/09/2019 1045	01/10/2019 1142	MH
Zinc	0.076		0.040		mg/L	1	01/09/2019 1045	01/10/2019 1142	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19A0116
Lab Sample ID: 19A0116-02

Client Sample ID: Outfall #2
Collection Date/Time: 01/07/2019 0840
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	2800		220		mg/L	10	01/10/2019 0940	01/10/2019 1541	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2800				mg/L	10	01/09/2019 0920	01/11/2019 1624	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	400		40		mg/L	10	01/10/2019 0940	01/10/2019 1541	MH
Magnesium	440		30		mg/L	10	01/10/2019 0940	01/10/2019 1541	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0059		0.0025		mg/L	5	01/10/2019 0940	01/11/2019 1559	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	390		4.0		mg/L	1	01/09/2019 0920	01/11/2019 1624	MH
Copper	ND		0.020		mg/L	1	01/09/2019 0920	01/11/2019 1624	MH
Magnesium	450		30	M3	mg/L	10	01/09/2019 0920	01/11/2019 1616	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19A0116
Date Received: 01/07/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 1901102 - E200.7 (4.4)										
Blank (1901102-BLK1) Prepared: 01/09/2019 Analyzed: 01/11/2019										
Calcium	ND	4.0	mg/L							
Copper	ND	0.020	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1901102-BS1) Prepared: 01/09/2019 Analyzed: 01/11/2019										
Calcium	10	4.0	mg/L	10.00		102	85-115			
Copper	0.24	0.020	mg/L	0.2500		96	85-115			
Magnesium	10	3.0	mg/L	10.00		103	85-115			
LCS Dup (1901102-BSD1) Prepared: 01/09/2019 Analyzed: 01/11/2019										
Calcium	10	4.0	mg/L	10.00		103	85-115	1	20	
Copper	0.24	0.020	mg/L	0.2500		97	85-115	1	20	
Magnesium	10	3.0	mg/L	10.00		103	85-115	0.2	20	
Matrix Spike (1901102-MS1) Source: 19A0094-02 Prepared: 01/09/2019 Analyzed: 01/11/2019										
Calcium	160	4.0	mg/L	10.00	160	58	70-130			M3
Copper	0.39	0.020	mg/L	0.2500	0.12	109	70-130			
Magnesium	41	3.0	mg/L	10.00	31	99	70-130			
Matrix Spike (1901102-MS2) Source: 19A0116-02 Prepared: 01/09/2019 Analyzed: 01/11/2019										
Calcium	400	4.0	mg/L	10.00	390	74	70-130			
Copper	0.29	0.020	mg/L	0.2500	0.011	110	70-130			
Magnesium	450	30	mg/L	10.00	450	NR	70-130			M3
Batch 1901103 - E200.8 (5.4)										
Blank (1901103-BLK1) Prepared: 01/09/2019 Analyzed: 01/10/2019										
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1901103-BS1) Prepared: 01/09/2019 Analyzed: 01/10/2019										
Arsenic	0.049	0.00050	mg/L	0.05000		98	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		99	85-115			
Copper	0.050	0.00050	mg/L	0.05000		100	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Zinc	0.10	0.040	mg/L	0.1000		100	85-115			
LCS Dup (1901103-BSD1) Prepared: 01/09/2019 Analyzed: 01/10/2019										
Arsenic	0.048	0.00050	mg/L	0.05000		97	85-115	1	20	
Cadmium	0.049	0.00025	mg/L	0.05000		99	85-115	0.5	20	
Copper	0.049	0.00050	mg/L	0.05000		98	85-115	1	20	
Lead	0.048	0.00050	mg/L	0.05000		96	85-115	2	20	
Zinc	0.098	0.040	mg/L	0.1000		98	85-115	2	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19A0116
Date Received: 01/07/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1901103 - E200.8 (5.4)										
Matrix Spike (1901103-MS1)		Source: 19A0116-01			Prepared: 01/09/2019 Analyzed: 01/10/2019					
Arsenic	0.055	0.00050	mg/L	0.05000	0.0056	99	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	0.00015	99	70-130			
Copper	0.058	0.00050	mg/L	0.05000	0.0095	96	70-130			
Lead	0.057	0.00050	mg/L	0.05000	0.0087	97	70-130			
Zinc	0.17	0.040	mg/L	0.1000	0.076	94	70-130			
Batch 1901104 - E 200.7 (4.4)										
Blank (1901104-BLK1)		Prepared & Analyzed: 01/10/2019								
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1901104-BS1)		Prepared & Analyzed: 01/10/2019								
Calcium	10	4.0	mg/L	10.00		102	85-115			
Magnesium	10	3.0	mg/L	10.00		100	85-115			
LCS Dup (1901104-BSD1)		Prepared & Analyzed: 01/10/2019								
Calcium	10	4.0	mg/L	10.00		102	85-115	0.08	20	
Magnesium	10	3.0	mg/L	10.00		103	85-115	2	20	
Matrix Spike (1901104-MS1)		Source: 19A0260-01			Prepared & Analyzed: 01/10/2019					
Calcium	62	4.0	mg/L	10.00	53	90	70-130			
Magnesium	21	3.0	mg/L	10.00	11	98	70-130			
Batch 1901108 - E 200.8 (5.4)										
Blank (1901108-BLK1)		Prepared & Analyzed: 01/11/2019								
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1901108-BS1)		Prepared & Analyzed: 01/11/2019								
Arsenic	0.049	0.00050	mg/L	0.05000		98	85-115			
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115			
Copper	0.049	0.00050	mg/L	0.05000		99	85-115			
Lead	0.047	0.00050	mg/L	0.05000		95	85-115			
Zinc	0.098	0.040	mg/L	0.1000		98	85-115			
LCS Dup (1901108-BSD1)		Prepared & Analyzed: 01/11/2019								
Arsenic	0.049	0.00050	mg/L	0.05000		98	85-115	0.5	20	
Cadmium	0.049	0.00025	mg/L	0.05000		97	85-115	0.8	20	
Copper	0.049	0.00050	mg/L	0.05000		98	85-115	1	20	
Lead	0.048	0.00050	mg/L	0.05000		96	85-115	1	20	
Zinc	0.097	0.040	mg/L	0.1000		97	85-115	1	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19A0116
Date Received: 01/07/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1901108 - E 200.8 (5.4)										
Matrix Spike (1901108-MS1)		Source: 19A0117-02			Prepared & Analyzed: 01/11/2019					
Arsenic	0.050	0.00050	mg/L	0.05000	ND	101	70-130			
Cadmium	0.051	0.00025	mg/L	0.05000	0.00012	101	70-130			
Copper	0.050	0.00050	mg/L	0.05000	0.00057	98	70-130			
Lead	0.049	0.00050	mg/L	0.05000	0.00047	98	70-130			
Zinc	0.12	0.040	mg/L	0.1000	0.0090	108	70-130			
Batch 1901120 - E200.7 (4.4)										
Blank (1901120-BLK1)		Prepared: 01/10/2019 Analyzed: 01/11/2019								
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1901120-BS1)		Prepared: 01/10/2019 Analyzed: 01/11/2019								
Calcium	10	4.0	mg/L	10.00		101	85-115			
Magnesium	10	3.0	mg/L	10.00		102	85-115			
LCS Dup (1901120-BSD1)		Prepared: 01/10/2019 Analyzed: 01/11/2019								
Calcium	9.9	4.0	mg/L	10.00		99	85-115	2	20	
Magnesium	10	3.0	mg/L	10.00		101	85-115	2	20	
Matrix Spike (1901120-MS1)		Source: 19A0212-01			Prepared: 01/10/2019 Analyzed: 01/11/2019					
Calcium	310	4.0	mg/L	10.00	310	69	70-130			M3
Magnesium	46	3.0	mg/L	10.00	36	103	70-130			
Matrix Spike (1901120-MS2)		Source: 19A0239-01			Prepared: 01/10/2019 Analyzed: 01/11/2019					
Calcium	87	4.0	mg/L	10.00	82	50	70-130			M3
Magnesium	19	3.0	mg/L	10.00	9.5	94	70-130			
Matrix Spike Dup (1901120-MSD1)		Source: 19A0212-01			Prepared: 01/10/2019 Analyzed: 01/11/2019					
Calcium	310	4.0	mg/L	10.00	310	62	70-130	0.2	200	M3
Magnesium	47	3.0	mg/L	10.00	36	105	70-130	0.4	200	



2445 N. Coyote Drive, Suite 104
 Tucson, Arizona 85745
 (520) 882-5880
 Fax: (520) 882-9788
 www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 19A0116 DATE _____ PAGE _____ OF _____

PROJECT NAME _____ # _____

CONTACT NAME Johnny Pappas, Sarah Richman

COMPANY NAME South 32

ADDRESS 2210 East Fort Lowell Road

CITY Tucson STATE AZ ZIP CODE 85719

PHONE _____ FAX _____

SAMPLER'S SIGNATURE [Signature]

NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX											
	See Attached											

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS
Outfall #1-010719-900	1-7-19	9:00		ST	2 /
Outfall #2-010719-900	1-7-19	4:40		ST	2 /

1. RELINQUISHED BY: [Signature]
 Signature
Luis Laguna
 Printed Name
South 32
 Firm
1-7-19 9:30
 Date/Time

2. RECEIVED BY: [Signature]
 Signature
Steve Metz
 Printed Name
Wild West
 Firm
1-7-19 9:00
 Date/Time

TURNAROUND REQUIREMENTS:
 _____ Standard (approx. 10 days)*
 _____ Next day _____ 2 Day _____ 5 Day*
 Email Preliminary Results To: _____
 *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: _____

SAMPLE RECEIPT:
 Total Containers 4
 Temperature 4.4°C
 Wet Ice Blue Ice

3. RELINQUISHED BY: [Signature]
 Signature
Steven Metz
 Printed Name
Wild West
 Firm
1-7-19 11:22
 Date/Time

4. RECEIVED BY: [Signature]
 Signature
E. Kusik
 Printed Name
 TURNER LABORATORIES, INC.
 Firm
1/7/19 11:22
 Date/Time

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

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seals <input type="checkbox"/>	Preservation Confirmation <input type="checkbox"/>
ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No	Container Intact <input type="checkbox"/>	Appropriate Head Space <input type="checkbox"/>
Mail ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No	COC/Labels Agree <input type="checkbox"/>	Received Within Hold Time <input type="checkbox"/>

Outfall 1 (Trench) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Arsenic	X	X	
Cadmium	X	X	
Copper	X	X	
Lead	X	X	
Zinc	X	X	
Major Cations			
Hardness	X	X	

FIELD MEASUREMENTS	
pH	
Specific conductance	
Temperature	
Turbidity	
Flow	
Appearance	

Outfall 2 (Trench) and Outfall 3 (Alta) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper	X	X	
Major Cations			
Hardness	X	X	

FIELD MEASUREMENTS	
pH	
Specific conductance	
Temperature	
Turbidity	
Flow	
Appearance	



March 20, 2019

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

TEL (802) 235-5563
FAX

Work Order No.: 19C0390

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 03/14/2019 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: Storm Water
Work Order: 19C0390
Date Received: 03/14/2019

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
19C0390-01	Outfall#2-031219-8:30	Storm Water	03/12/2019 0830
19C0390-02	Outfall#1-031319-9:00	Storm Water	03/13/2019 0900

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19C0390
Date Received: 03/14/2019

Case Narrative

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: Storm Water
Work Order: 19C0390
Lab Sample ID: 19C0390-01

Client Sample ID: Outfall#2-031219-8:30
Collection Date/Time: 03/12/2019 0830
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	13000		10		mg/L	1	03/15/2019 0843	03/18/2019 1535	EJ

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19C0390
Lab Sample ID: 19C0390-02

Client Sample ID: Outfall#1-031319-9:00
Collection Date/Time: 03/13/2019 0900
Matrix: Storm Water

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

Total Suspended Solids (Residue, Non-Filterable)-SM2540 D

Total Suspended Solids	270		10		mg/L	1	03/15/2019 0843	03/18/2019 1535	EJ
------------------------	-----	--	----	--	------	---	-----------------	-----------------	----

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19C0390
Date Received: 03/14/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1903174 - SM2540 D										
Duplicate (1903174-DUP1)		Source: 19C0231-01			Prepared: 03/15/2019 Analyzed: 03/18/2019					
Total Suspended Solids	7.0	10	mg/L		8.0			13	5	Q9, R12
Duplicate (1903174-DUP2)		Source: 19C0391-02			Prepared: 03/15/2019 Analyzed: 03/19/2019					
Total Suspended Solids	100	10	mg/L		97			4	5	



July 26, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18G0398

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 07/12/2018 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.

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Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Business Development

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0398
Date Received: 07/12/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18G0398-01	Outfall #2	Storm Water	07/11/2018 1130

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0398
Date Received: 07/12/2018

Case Narrative

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: Storm Water
Work Order: 18G0398
Lab Sample ID: 18G0398-01

Client Sample ID: Outfall #2
Collection Date/Time: 07/11/2018 1130
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	330		22		mg/L	1	07/17/2018 1440	07/19/2018 1519	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	370				mg/L	1	07/19/2018 1020	07/20/2018 1317	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	75		4.0		mg/L	1	07/17/2018 1440	07/19/2018 1519	MH
Magnesium	34		3.0		mg/L	1	07/17/2018 1440	07/19/2018 1519	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0038		0.00050		mg/L	1	07/19/2018 1300	07/20/2018 1346	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	80		4.0		mg/L	1	07/19/2018 1020	07/20/2018 1317	MH
Copper	0.046		0.020		mg/L	1	07/19/2018 1020	07/20/2018 1317	MH
Magnesium	41		3.0		mg/L	1	07/19/2018 1020	07/20/2018 1317	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0398
Date Received: 07/12/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1807203 - E 200.7 (4.4)										
Blank (1807203-BLK1)				Prepared & Analyzed: 07/19/2018						
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1807203-BS1)				Prepared & Analyzed: 07/19/2018						
Calcium	10	4.0	mg/L	10.00		100	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
LCS Dup (1807203-BSD1)				Prepared & Analyzed: 07/19/2018						
Calcium	9.5	4.0	mg/L	10.00		95	85-115	5	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	3	20	
Matrix Spike (1807203-MS1)				Source: 18G0286-01		Prepared & Analyzed: 07/19/2018				
Calcium	25	4.0	mg/L	10.00	16	90	70-130			
Magnesium	13	3.0	mg/L	10.00	3.0	96	70-130			
Matrix Spike (1807203-MS2)				Source: 18G0340-01		Prepared & Analyzed: 07/19/2018				
Calcium	48	4.0	mg/L	10.00	36	114	70-130			
Magnesium	16	3.0	mg/L	10.00	5.6	100	70-130			
Batch 1807206 - E200.7 (4.4)										
Blank (1807206-BLK1)				Prepared: 07/19/2018 Analyzed: 07/20/2018						
Calcium	ND	4.0	mg/L							
Copper	ND	0.020	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1807206-BS1)				Prepared: 07/19/2018 Analyzed: 07/20/2018						
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Copper	0.24	0.020	mg/L	0.2500		96	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
LCS Dup (1807206-BSD1)				Prepared: 07/19/2018 Analyzed: 07/20/2018						
Calcium	9.7	4.0	mg/L	10.00		97	85-115	2	20	
Copper	0.24	0.020	mg/L	0.2500		96	85-115	0.5	20	
Magnesium	9.9	3.0	mg/L	10.00		99	85-115	0.6	20	
Matrix Spike (1807206-MS1)				Source: 18G0299-01		Prepared: 07/19/2018 Analyzed: 07/20/2018				
Calcium	50	4.0	mg/L	10.00	41	88	70-130			
Copper	0.28	0.020	mg/L	0.2500	0.0091	110	70-130			
Magnesium	770	30	mg/L	10.00	790	NR	70-130			M3
Matrix Spike (1807206-MS2)				Source: 18G0325-01		Prepared: 07/19/2018 Analyzed: 07/20/2018				
Calcium	400	4.0	mg/L	10.00	400	NR	70-130			M3
Copper	0.27	0.020	mg/L	0.2500	0.016	103	70-130			
Magnesium	110	3.0	mg/L	10.00	98	82	70-130			
Batch 1807208 - E 200.8 (5.4)										
Blank (1807208-BLK1)				Prepared & Analyzed: 07/20/2018						
Copper	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0398
Date Received: 07/12/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807208 - E 200.8 (5.4)										
LCS (1807208-BS1)				Prepared & Analyzed: 07/20/2018						
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
LCS Dup (1807208-BSD1)				Prepared & Analyzed: 07/20/2018						
Copper	0.051	0.00050	mg/L	0.05000		102	85-115	0.4	20	
Matrix Spike (1807208-MS1)		Source: 18G0398-01		Prepared & Analyzed: 07/20/2018						
Copper	0.049	0.00050	mg/L	0.05000	0.0038	90	70-130			

Outfall 2 (Trench) and Outfall 3 (Alta) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper	X	X	
Major Cations			
Hardness	X	X	

FIELD MEASUREMENTS	
	pH
	Specific conductance
	Temperature
	Turbidity
	Flow
	Appearance



July 26, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18G0425

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 07/13/2018 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: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18G0425-01	Outfall 1	Storm Water	07/13/2018 0810
18G0425-02	Outfall 3	Storm Water	07/13/2018 0810

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

Case Narrative

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: Storm Water
Work Order: 18G0425
Lab Sample ID: 18G0425-01

Client Sample ID: Outfall 1
Collection Date/Time: 07/13/2018 0810
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	110		22		mg/L	1	07/17/2018 1440	07/19/2018 1523	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	210				mg/L	1	07/19/2018 1020	07/20/2018 1329	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	21		4.0		mg/L	1	07/17/2018 1440	07/19/2018 1523	MH
Magnesium	14		3.0		mg/L	1	07/17/2018 1440	07/19/2018 1523	MH
Zinc	ND		0.040		mg/L	1	07/17/2018 1440	07/19/2018 1524	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0044		0.00050		mg/L	1	07/17/2018 1440	07/20/2018 1423	MH
Cadmium	ND		0.00025		mg/L	1	07/17/2018 1440	07/20/2018 1423	MH
Copper	0.0045		0.00050		mg/L	1	07/17/2018 1440	07/20/2018 1423	MH
Lead	0.00061		0.00050		mg/L	1	07/17/2018 1440	07/20/2018 1423	MH
ICP Total Metals-E200.7 (4.4)									
Arsenic	0.11		0.040		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH
Cadmium	0.0039		0.0020		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH
Calcium	30		4.0		mg/L	1	07/19/2018 1020	07/20/2018 1329	MH
Copper	0.14		0.020		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH
Lead	0.96		0.040		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH
Magnesium	33		3.0		mg/L	1	07/19/2018 1020	07/20/2018 1329	MH
Zinc	2.1		0.040		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Lab Sample ID: 18G0425-02

Client Sample ID: Outfall 3
Collection Date/Time: 07/13/2018 0810
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	40		22		mg/L	1	07/19/2018 1300	07/24/2018 1421	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	170				mg/L	1	07/19/2018 1020	07/20/2018 1333	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	9.6		4.0		mg/L	1	07/19/2018 1300	07/24/2018 1421	MH
Magnesium	4.0		3.0		mg/L	1	07/19/2018 1300	07/24/2018 1421	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.046		0.00050		mg/L	1	07/19/2018 1300	07/20/2018 1439	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	24		4.0		mg/L	1	07/19/2018 1020	07/20/2018 1333	MH
Copper	0.20		0.020		mg/L	1	07/19/2018 1020	07/20/2018 1334	MH
Magnesium	28		3.0		mg/L	1	07/19/2018 1020	07/20/2018 1333	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807203 - E 200.7 (4.4)										
Blank (1807203-BLK1) Prepared & Analyzed: 07/19/2018										
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1807203-BS1) Prepared & Analyzed: 07/19/2018										
Calcium	10	4.0	mg/L	10.00		100	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
Zinc	0.50	0.040	mg/L	0.5000		101	85-115			
LCS Dup (1807203-BSD1) Prepared & Analyzed: 07/19/2018										
Calcium	9.5	4.0	mg/L	10.00		95	85-115	5	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	3	20	
Zinc	0.50	0.040	mg/L	0.5000		101	85-115	0.07	20	
Matrix Spike (1807203-MS1) Source: 18G0286-01 Prepared & Analyzed: 07/19/2018										
Calcium	25	4.0	mg/L	10.00	16	90	70-130			
Magnesium	13	3.0	mg/L	10.00	3.0	96	70-130			
Zinc	0.50	0.040	mg/L	0.5000	ND	100	70-130			
Matrix Spike (1807203-MS2) Source: 18G0340-01 Prepared & Analyzed: 07/19/2018										
Calcium	48	4.0	mg/L	10.00	36	114	70-130			
Magnesium	16	3.0	mg/L	10.00	5.6	100	70-130			
Zinc	0.50	0.040	mg/L	0.5000	0.0072	100	70-130			
Batch 1807206 - E200.7 (4.4)										
Blank (1807206-BLK1) Prepared: 07/19/2018 Analyzed: 07/20/2018										
Arsenic	ND	0.040	mg/L							
Cadmium	ND	0.0020	mg/L							
Calcium	ND	4.0	mg/L							
Copper	ND	0.020	mg/L							
Lead	ND	0.040	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1807206-BS1) Prepared: 07/19/2018 Analyzed: 07/20/2018										
Arsenic	1.94	0.040	mg/L	2.000		97	85-115			
Cadmium	0.049	0.0020	mg/L	0.05000		98	85-115			
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Copper	0.24	0.020	mg/L	0.2500		96	85-115			
Lead	0.50	0.040	mg/L	0.5000		100	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Zinc	0.48	0.040	mg/L	0.5000		95	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807206 - E200.7 (4.4)										
LCS Dup (1807206-BSD1)				Prepared: 07/19/2018 Analyzed: 07/20/2018						
Arsenic	1.96	0.040	mg/L	2.000		98	85-115	0.9	20	
Cadmium	0.049	0.0020	mg/L	0.05000		98	85-115	0.6	20	
Calcium	9.7	4.0	mg/L	10.00		97	85-115	2	20	
Copper	0.24	0.020	mg/L	0.2500		96	85-115	0.5	20	
Lead	0.50	0.040	mg/L	0.5000		101	85-115	0.4	20	
Magnesium	9.9	3.0	mg/L	10.00		99	85-115	0.6	20	
Zinc	0.49	0.040	mg/L	0.5000		97	85-115	2	20	
Matrix Spike (1807206-MS1)				Source: 18G0299-01		Prepared: 07/19/2018 Analyzed: 07/20/2018				
Arsenic	2.05	0.040	mg/L	2.000	0.0345	101	70-130			
Cadmium	0.045	0.0020	mg/L	0.05000	ND	91	70-130			
Calcium	50	4.0	mg/L	10.00	41	88	70-130			
Copper	0.28	0.020	mg/L	0.2500	0.0091	110	70-130			
Lead	0.24	0.040	mg/L	0.5000	ND	48	70-130			M7
Magnesium	770	30	mg/L	10.00	790	NR	70-130			M3
Zinc	0.46	0.040	mg/L	0.5000	ND	92	70-130			
Matrix Spike (1807206-MS2)				Source: 18G0325-01		Prepared: 07/19/2018 Analyzed: 07/20/2018				
Arsenic	2.05	0.040	mg/L	2.000	0.0206	101	70-130			
Cadmium	0.042	0.0020	mg/L	0.05000	ND	85	70-130			
Calcium	400	4.0	mg/L	10.00	400	NR	70-130			M3
Copper	0.27	0.020	mg/L	0.2500	0.016	103	70-130			
Lead	0.43	0.040	mg/L	0.5000	ND	87	70-130			
Magnesium	110	3.0	mg/L	10.00	98	82	70-130			
Zinc	0.51	0.040	mg/L	0.5000	0.045	92	70-130			
Batch 1807208 - E 200.8 (5.4)										
Blank (1807208-BLK1)				Prepared & Analyzed: 07/20/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
LCS (1807208-BS1)				Prepared & Analyzed: 07/20/2018						
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115			
Cadmium	0.052	0.00025	mg/L	0.05000		104	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
LCS Dup (1807208-BSD1)				Prepared & Analyzed: 07/20/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	0.8	20	
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115	2	20	
Copper	0.051	0.00050	mg/L	0.05000		102	85-115	0.4	20	
Lead	0.049	0.00050	mg/L	0.05000		99	85-115	1	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807208 - E 200.8 (5.4)										
Matrix Spike (1807208-MS1)		Source: 18G0398-01			Prepared & Analyzed: 07/20/2018					
Arsenic	0.061	0.00050	mg/L	0.05000	0.0084	105	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	0.00013	98	70-130			
Copper	0.049	0.00050	mg/L	0.05000	0.0038	90	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00012	100	70-130			
Batch 1807247 - E 200.7 (4.4)										
Blank (1807247-BLK1)		Prepared & Analyzed: 07/24/2018								
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1807247-BS1)		Prepared & Analyzed: 07/24/2018								
Calcium	9.4	4.0	mg/L	10.00		94	85-115			
Magnesium	9.5	3.0	mg/L	10.00		95	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	
Magnesium	9.5	3.0	mg/L	10.00		95	85-115	0.5	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			
Magnesium	20	3.0	mg/L	10.00	11	93	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			
Magnesium	13	3.0	mg/L	10.00	4.0	95	70-130			

STORMWATER SAMPLE FORM

Field Staff Robert Dodson

Company AMI

Weather Cloudy

Notes _____

Rainfall (inches) 1.74"

Sample Location	Sample ID	Flow (gpm)	Sample Date	Time Sampled	Temp °C	pH	Specific Conductivity (µs/cm)	Turbidity (NTU)	Appearance of Water: (color, odor, etc) or other notes
Outfall 1	Outfall 7-13-18		7-13-18	8:10 AM	21°C	6.75	396	1100	Murky, brown, no odor
Outfall 3	7-13-18		7-13-18	8:10 AM	20.2°C	7.29	161.2	1060	Murky, brown, no odor

Sample Laboratory Information

Water Quality Meter

Container Volume	No of Containers	Filtered Y/N	Preservative	Lab Analysis	Meter:
500	2	NO	No	DIS + TSS	pH: YSI Professional Plus Turbidity: ● Geotech Portable Turbidity Meter
250	2	NO	Yes	Total	
					Calibration Date: <u>7-13-18</u>

Dissolved Metals - Filter (0.45 micron filter) prior to placing into 250 ml container with nitric acid preservative.

Total Metals - 250 ml container with nitric acid preservative.

TSS, Hardness (Calcium, Magnesium) - 250 ml container with NO preservative.



August 20, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18H0223

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 08/07/2018 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: Storm Water
Work Order: 18H0223
Date Received: 08/07/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18H0223-01	Outfall 1	Storm Water	08/06/2018 1030
18H0223-02	Outfall 3	Storm Water	08/06/2018 1230

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18H0223
Date Received: 08/07/2018

Case Narrative

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: Storm Water
Work Order: 18H0223
Lab Sample ID: 18H0223-01

Client Sample ID: Outfall 1
Collection Date/Time: 08/06/2018 1030
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	960		22		mg/L	1	08/08/2018 1600	08/14/2018 1409	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	4500				mg/L	20	08/09/2018 1200	08/13/2018 1222	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	220		4.0		mg/L	1	08/08/2018 1600	08/14/2018 1409	MH
Magnesium	100		3.0		mg/L	1	08/08/2018 1600	08/14/2018 1409	MH
Zinc	ND		0.040		mg/L	1	08/08/2018 1600	08/14/2018 1409	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0037		0.00050		mg/L	1	08/08/2018 1600	08/15/2018 1600	MH
Cadmium	0.00034		0.00025		mg/L	1	08/08/2018 1600	08/15/2018 1600	MH
Copper	0.0013		0.00050		mg/L	1	08/08/2018 1600	08/15/2018 1600	MH
Lead	ND		0.00050		mg/L	1	08/08/2018 1600	08/15/2018 1600	MH
ICP Total Metals-E200.7 (4.4)									
Arsenic	0.35		0.040		mg/L	1	08/09/2018 1200	08/10/2018 1315	MH
Cadmium	0.12		0.0020		mg/L	1	08/09/2018 1200	08/10/2018 1315	MH
Calcium	630		80		mg/L	20	08/09/2018 1200	08/13/2018 1222	MH
Copper	2.5		0.020		mg/L	1	08/09/2018 1200	08/10/2018 1315	MH
Lead	3.5		0.040		mg/L	1	08/09/2018 1200	08/10/2018 1315	MH
Magnesium	700		60		mg/L	20	08/09/2018 1200	08/13/2018 1222	MH
Zinc	31		0.80		mg/L	20	08/09/2018 1200	08/13/2018 1222	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18H0223
Lab Sample ID: 18H0223-02

Client Sample ID: Outfall 3
Collection Date/Time: 08/06/2018 1230
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	ND		22		mg/L	1	08/08/2018 1600	08/14/2018 1413	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	45				mg/L	1	08/09/2018 1200	08/10/2018 1319	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	5.9		4.0		mg/L	1	08/08/2018 1600	08/14/2018 1413	MH
Magnesium	ND		3.0		mg/L	1	08/08/2018 1600	08/14/2018 1413	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0049		0.00050		mg/L	1	08/08/2018 1600	08/15/2018 1610	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	9.2		4.0		mg/L	1	08/09/2018 1200	08/10/2018 1319	MH
Copper	0.030		0.020		mg/L	1	08/09/2018 1200	08/10/2018 1319	MH
Magnesium	5.3		3.0		mg/L	1	08/09/2018 1200	08/10/2018 1319	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18H0223
Date Received: 08/07/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
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Batch 1808132 - E200.7 (4.4)

Blank (1808132-BLK1)

Prepared: 08/09/2018 Analyzed: 08/10/2018

Arsenic	ND	0.040	mg/L							
Cadmium	ND	0.0020	mg/L							
Calcium	ND	4.0	mg/L							
Copper	ND	0.020	mg/L							
Lead	ND	0.040	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							

LCS (1808132-BS1)

Prepared: 08/09/2018 Analyzed: 08/10/2018

Arsenic	1.96	0.040	mg/L	2.000		98	85-115			
Cadmium	0.047	0.0020	mg/L	0.05000		95	85-115			
Calcium	9.9	4.0	mg/L	10.00		99	85-115			
Copper	0.23	0.020	mg/L	0.2500		92	85-115			
Lead	0.47	0.040	mg/L	0.5000		94	85-115			
Magnesium	10	3.0	mg/L	10.00		100	85-115			
Zinc	0.46	0.040	mg/L	0.5000		92	85-115			

LCS Dup (1808132-BSD1)

Prepared: 08/09/2018 Analyzed: 08/10/2018

Arsenic	1.96	0.040	mg/L	2.000		98	85-115	0.3	20	
Cadmium	0.047	0.0020	mg/L	0.05000		95	85-115	0.1	20	
Calcium	9.8	4.0	mg/L	10.00		98	85-115	0.9	20	
Copper	0.23	0.020	mg/L	0.2500		93	85-115	0.9	20	
Lead	0.47	0.040	mg/L	0.5000		94	85-115	0.2	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	0.3	20	
Zinc	0.46	0.040	mg/L	0.5000		92	85-115	0.8	20	

Matrix Spike (1808132-MS1)

Source: 18H0051-02

Prepared: 08/09/2018 Analyzed: 08/10/2018

Arsenic	2.10	0.040	mg/L	2.000	0.0328	103	70-130			
Cadmium	0.044	0.0020	mg/L	0.05000	ND	89	70-130			
Calcium	240	4.0	mg/L	10.00	240	13	70-130			M3
Copper	0.37	0.020	mg/L	0.2500	0.11	104	70-130			
Lead	0.45	0.040	mg/L	0.5000	ND	89	70-130			
Magnesium	60	3.0	mg/L	10.00	51	86	70-130			
Zinc	0.65	0.040	mg/L	0.5000	0.18	94	70-130			

Batch 1808173 - E 200.7 (4.4)

Blank (1808173-BLK1)

Prepared & Analyzed: 08/14/2018

Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							

LCS (1808173-BS1)

Prepared & Analyzed: 08/14/2018

Calcium	9.4	4.0	mg/L	10.00		94	85-115			
Magnesium	9.5	3.0	mg/L	10.00		95	85-115			
Zinc	0.47	0.040	mg/L	0.5000		93	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18H0223
Date Received: 08/07/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808173 - E 200.7 (4.4)										
LCS Dup (1808173-BSD1)				Prepared & Analyzed: 08/14/2018						
Calcium	9.3	4.0	mg/L	10.00		93	85-115	0.8	20	
Magnesium	9.4	3.0	mg/L	10.00		94	85-115	0.1	20	
Zinc	0.47	0.040	mg/L	0.5000		94	85-115	0.6	20	
Matrix Spike (1808173-MS1)				Source: 18H0223-02		Prepared & Analyzed: 08/14/2018				
Calcium	15	4.0	mg/L	10.00	5.9	91	70-130			
Magnesium	12	3.0	mg/L	10.00	2.2	94	70-130			
Zinc	0.51	0.040	mg/L	0.5000	0.035	95	70-130			
Batch 1808193 - E 200.8 (5.4)										
Blank (1808193-BLK1)				Prepared & Analyzed: 08/15/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
LCS (1808193-BS1)				Prepared & Analyzed: 08/15/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115			
Copper	0.049	0.00050	mg/L	0.05000		99	85-115			
Lead	0.051	0.00050	mg/L	0.05000		102	85-115			
LCS Dup (1808193-BSD1)				Prepared & Analyzed: 08/15/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115	0.4	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	0.03	20	
Copper	0.049	0.00050	mg/L	0.05000		99	85-115	0.1	20	
Lead	0.051	0.00050	mg/L	0.05000		101	85-115	0.5	20	
Matrix Spike (1808193-MS1)				Source: 18H0223-01		Prepared & Analyzed: 08/15/2018				
Arsenic	0.058	0.00050	mg/L	0.05000	0.0037	108	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.00034	96	70-130			
Copper	0.046	0.00050	mg/L	0.05000	0.0013	90	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.000099	103	70-130			

Outfall 1 (Trench) Stormwater

Analyte	LABORATORY		
	Total	Dissolved	Other
Metals			
Arsenic	X	X	
Cadmium	X	X	
Copper	X	X	
Lead	X	X	
Zinc	X	X	
Major Cations			
Hardness	X	X	

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance

Outfall 2 (Trench) and Outfall 3 (Alta) Stormwater

Analyte	LABORATORY		
	Total	Dissolved	Other
Metals			
Copper	X	X	
Major Cations			
Hardness	X	X	

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance



October 24, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18J0427
Order Name: South 32

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 10/12/2018 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: Storm Water
Work Order: 18J0427
Date Received: 10/12/2018

Order: South 32

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18J0427-01	Outfall #1	Storm Water	10/12/2018 0830
18J0427-02	Outfall #2	Storm Water	10/12/2018 0846

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0427
Date Received: 10/12/2018

Case Narrative

- B1 Target analyte detected in the method 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.
 - 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: Storm Water
Work Order: 18J0427
Lab Sample ID: 18J0427-01

Client Sample ID: Outfall #1
Collection Date/Time: 10/12/2018 0830
Matrix: Storm Water
Order Name: South 32

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	1300		110		mg/L	5	10/22/2018 1135	10/23/2018 1654	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1900				mg/L	1	10/18/2018 1215	10/23/2018 1142	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	310		20		mg/L	5	10/22/2018 1135	10/23/2018 1654	MH
Magnesium	140		15		mg/L	5	10/22/2018 1135	10/23/2018 1654	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0027		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
Cadmium	0.00045		0.00025		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
Copper	0.0013		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
Lead	0.0012		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
Zinc	ND		0.040		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	350		4.0		mg/L	1	10/18/2018 1215	10/23/2018 1142	MH
Copper	0.71		0.020		mg/L	1	10/18/2018 1215	10/23/2018 1142	MH
Magnesium	240		3.0		mg/L	1	10/18/2018 1215	10/23/2018 1142	MH
ICP/MS Total Metals-E200.8 (5.4)									
Arsenic	0.17		0.00050		mg/L	1	10/18/2018 1000	10/19/2018 1257	MH
Cadmium	0.022		0.00025		mg/L	1	10/18/2018 1000	10/19/2018 1257	MH
Lead	2.5		0.010	B7	mg/L	20	10/18/2018 1000	10/19/2018 1508	MH
Zinc	9.4		0.80		mg/L	20	10/18/2018 1000	10/19/2018 1508	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0427
Lab Sample ID: 18J0427-02

Client Sample ID: Outfall #2
Collection Date/Time: 10/12/2018 0846
Matrix: Storm Water
Order Name: South 32

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	1800		110		mg/L	5	10/22/2018 1135	10/23/2018 1658	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1600				mg/L	10	10/18/2018 1215	10/23/2018 1154	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	490		20		mg/L	5	10/22/2018 1135	10/23/2018 1658	MH
Magnesium	140		15		mg/L	5	10/22/2018 1135	10/23/2018 1658	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0020		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1421	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	420		40		mg/L	10	10/18/2018 1215	10/23/2018 1154	MH
Copper	0.12		0.020		mg/L	1	10/18/2018 1215	10/23/2018 1146	MH
Magnesium	140		3.0		mg/L	1	10/18/2018 1215	10/23/2018 1146	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0427
Date Received: 10/12/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1810222 - E200.8 (5.4)										
Blank (1810222-BLK1)				Prepared: 10/18/2018 Analyzed: 10/19/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Lead	0.0025	0.00050	mg/L							B1
Zinc	ND	0.040	mg/L							
LCS (1810222-BS1)				Prepared: 10/18/2018 Analyzed: 10/19/2018						
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Lead	0.057	0.00050	mg/L	0.05000		115	85-115			
Zinc	0.10	0.040	mg/L	0.1000		102	85-115			
LCS Dup (1810222-BSD1)				Prepared: 10/18/2018 Analyzed: 10/19/2018						
Arsenic	0.049	0.00050	mg/L	0.05000		97	85-115	4	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	5	20	
Lead	0.051	0.00050	mg/L	0.05000		103	85-115	11	20	
Zinc	0.097	0.040	mg/L	0.1000		97	85-115	5	20	
Matrix Spike (1810222-MS1)		Source: 18J0486-04		Prepared: 10/18/2018 Analyzed: 10/19/2018						
Arsenic	0.050	0.00050	mg/L	0.05000	ND	100	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	ND	96	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0014	105	70-130			
Zinc	0.096	0.040	mg/L	0.1000	ND	96	70-130			
Matrix Spike (1810222-MS2)		Source: 18J0486-06		Prepared: 10/18/2018 Analyzed: 10/19/2018						
Arsenic	0.047	0.00050	mg/L	0.05000	0.00016	94	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.000076	94	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.0014	101	70-130			
Zinc	0.094	0.040	mg/L	0.1000	ND	94	70-130			
Batch 1810224 - E200.7 (4.4)										
Blank (1810224-BLK1)				Prepared: 10/18/2018 Analyzed: 10/22/2018						
Calcium	ND	4.0	mg/L							
Copper	ND	0.020	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1810224-BS1)				Prepared: 10/18/2018 Analyzed: 10/22/2018						
Calcium	10	4.0	mg/L	10.00		101	85-115			
Copper	0.24	0.020	mg/L	0.2500		95	85-115			
Magnesium	10	3.0	mg/L	10.00		102	85-115			
LCS Dup (1810224-BSD1)				Prepared: 10/18/2018 Analyzed: 10/22/2018						
Calcium	10	4.0	mg/L	10.00		101	85-115	0.2	20	
Copper	0.24	0.020	mg/L	0.2500		96	85-115	0.5	20	
Magnesium	10	3.0	mg/L	10.00		102	85-115	0.1	20	
Matrix Spike (1810224-MS1)		Source: 18J0154-01		Prepared: 10/18/2018 Analyzed: 10/23/2018						
Calcium	17000		mg/L	10.00	17000	NR	70-130			M3
Copper	0.38		mg/L	0.2500	0.19	75	70-130			
Magnesium	6000		mg/L	10.00	6100	NR	70-130			M3

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0427
Date Received: 10/12/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1810224 - E200.7 (4.4)										
Matrix Spike (1810224-MS2)		Source: 18J0415-01			Prepared: 10/18/2018 Analyzed: 10/22/2018					
Calcium	67	4.0	mg/L	10.00	60	65	70-130			M3
Copper	0.26	0.020	mg/L	0.2500	0.023	97	70-130			
Magnesium	15	3.0	mg/L	10.00	6.4	89	70-130			
Batch 1810242 - E 200.8 (5.4)										
Blank (1810242-BLK1)				Prepared & Analyzed: 10/23/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1810242-BS1)				Prepared & Analyzed: 10/23/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Copper	0.049	0.00050	mg/L	0.05000		98	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Zinc	0.10	0.040	mg/L	0.1000		101	85-115			
LCS Dup (1810242-BSD1)				Prepared & Analyzed: 10/23/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	1	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	0.8	20	
Copper	0.050	0.00050	mg/L	0.05000		99	85-115	1	20	
Lead	0.049	0.00050	mg/L	0.05000		99	85-115	2	20	
Zinc	0.10	0.040	mg/L	0.1000		100	85-115	0.7	20	
Matrix Spike (1810242-MS1)		Source: 18J0429-02			Prepared & Analyzed: 10/23/2018					
Arsenic	0.056	0.00050	mg/L	0.05000	0.0025	107	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	ND	99	70-130			
Copper	0.046	0.00050	mg/L	0.05000	0.0017	89	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0054	97	70-130			
Zinc	0.12	0.040	mg/L	0.1000	0.024	96	70-130			
Batch 1810260 - E 200.7 (4.4)										
Blank (1810260-BLK1)				Prepared & Analyzed: 10/23/2018						
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1810260-BS1)				Prepared & Analyzed: 10/23/2018						
Calcium	11	4.0	mg/L	10.00		109	85-115			
Magnesium	11	3.0	mg/L	10.00		108	85-115			
LCS Dup (1810260-BSD1)				Prepared & Analyzed: 10/23/2018						
Calcium	9.9	4.0	mg/L	10.00		99	85-115	10	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	7	20	
Matrix Spike (1810260-MS1)		Source: 18J0476-01			Prepared & Analyzed: 10/23/2018					
Calcium	36	4.0	mg/L	10.00	30	59	70-130			M3
Magnesium	20	3.0	mg/L	10.00	11	88	70-130			



October 26, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18J0476

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 10/16/2018 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: Storm Water
Work Order: 18J0476
Date Received: 10/16/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18J0476-01	Outfall #1	Storm Water	10/16/2018 0830
18J0476-02	Outfall #3	Storm Water	10/16/2018 0845

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0476
Date Received: 10/16/2018

Case Narrative

- B1 Target analyte detected in the method 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.
- 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: Storm Water
Work Order: 18J0476
Lab Sample ID: 18J0476-01

Client Sample ID: Outfall #1
Collection Date/Time: 10/16/2018 0830
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	120		22		mg/L	1	10/22/2018 1135	10/23/2018 1618	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	130				mg/L	1	10/19/2018 1035	10/25/2018 1855	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	30		4.0	M3	mg/L	1	10/22/2018 1135	10/23/2018 1618	MH
Magnesium	11		3.0		mg/L	1	10/22/2018 1135	10/23/2018 1618	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0055		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
Cadmium	ND		0.00025		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
Copper	0.0029		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
Lead	0.00057		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
Zinc	ND		0.040		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	32		4.0		mg/L	1	10/19/2018 1035	10/25/2018 1855	MH
Magnesium	12		3.0		mg/L	1	10/19/2018 1035	10/25/2018 1855	MH
ICP/MS Total Metals-E200.8 (5.4)									
Arsenic	0.0061		0.00050		mg/L	1	10/18/2018 1000	10/19/2018 1313	MH
Cadmium	0.00035		0.00025		mg/L	1	10/18/2018 1000	10/19/2018 1313	MH
Copper	0.012		0.00050		mg/L	1	10/18/2018 1000	10/19/2018 1313	MH
Lead	0.19		0.00050	B7	mg/L	1	10/18/2018 1000	10/19/2018 1313	MH
Zinc	0.11		0.040		mg/L	1	10/18/2018 1000	10/19/2018 1313	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0476
Lab Sample ID: 18J0476-02

Client Sample ID: Outfall #3
Collection Date/Time: 10/16/2018 0845
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	ND		22		mg/L	1	10/22/2018 1135	10/23/2018 1702	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	31				mg/L	1	10/19/2018 1035	10/25/2018 1900	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	ND		4.0		mg/L	1	10/22/2018 1135	10/23/2018 1702	MH
Magnesium	ND		3.0		mg/L	1	10/22/2018 1135	10/23/2018 1702	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0032		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1427	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	5.5		4.0		mg/L	1	10/19/2018 1035	10/25/2018 1900	MH
Magnesium	4.1		3.0		mg/L	1	10/19/2018 1035	10/25/2018 1900	MH
ICP/MS Total Metals-E200.8 (5.4)									
Copper	0.023		0.00050		mg/L	1	10/18/2018 1000	10/19/2018 1318	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0476
Date Received: 10/16/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1810222 - E200.8 (5.4)										
Blank (1810222-BLK1) Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	0.0025	0.00050	mg/L							B1
Zinc	ND	0.040	mg/L							
LCS (1810222-BS1) Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.057	0.00050	mg/L	0.05000		115	85-115			
Zinc	0.10	0.040	mg/L	0.1000		102	85-115			
LCS Dup (1810222-BSD1) Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	0.049	0.00050	mg/L	0.05000		97	85-115	4	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	5	20	
Copper	0.049	0.00050	mg/L	0.05000		97	85-115	6	20	
Lead	0.051	0.00050	mg/L	0.05000		103	85-115	11	20	
Zinc	0.097	0.040	mg/L	0.1000		97	85-115	5	20	
Matrix Spike (1810222-MS1) Source: 18J0486-04 Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	0.050	0.00050	mg/L	0.05000	ND	100	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	ND	96	70-130			
Copper	0.050	0.00050	mg/L	0.05000	0.00019	100	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0014	105	70-130			
Zinc	0.096	0.040	mg/L	0.1000	ND	96	70-130			
Matrix Spike (1810222-MS2) Source: 18J0486-06 Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	0.047	0.00050	mg/L	0.05000	0.00016	94	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.000076	94	70-130			
Copper	0.049	0.00050	mg/L	0.05000	ND	98	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.0014	101	70-130			
Zinc	0.094	0.040	mg/L	0.1000	ND	94	70-130			
Batch 1810239 - E200.7 (4.4)										
Blank (1810239-BLK1) Prepared: 10/19/2018 Analyzed: 10/25/2018										
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1810239-BS1) Prepared: 10/19/2018 Analyzed: 10/25/2018										
Calcium	10	4.0	mg/L	10.00		103	85-115			
Magnesium	10	3.0	mg/L	10.00		105	85-115			
LCS Dup (1810239-BSD1) Prepared: 10/19/2018 Analyzed: 10/25/2018										
Calcium	10	4.0	mg/L	10.00		103	85-115	0.3	20	
Magnesium	11	3.0	mg/L	10.00		107	85-115	2	20	
Matrix Spike (1810239-MS1) Source: 18J0407-01 Prepared: 10/19/2018 Analyzed: 10/25/2018										
Calcium	88	4.0	mg/L	10.00	76	115	70-130			
Magnesium	28	3.0	mg/L	10.00	17	109	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0476
Date Received: 10/16/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 1810239 - E200.7 (4.4)										
Matrix Spike (1810239-MS2)		Source: 18J0420-02			Prepared: 10/19/2018 Analyzed: 10/25/2018					
Calcium	210	4.0	mg/L	10.00	210	3	70-130			M3
Magnesium	49	3.0	mg/L	10.00	40	89	70-130			
Batch 1810242 - E 200.8 (5.4)										
Blank (1810242-BLK1)				Prepared & Analyzed: 10/23/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1810242-BS1)				Prepared & Analyzed: 10/23/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Copper	0.049	0.00050	mg/L	0.05000		98	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Zinc	0.10	0.040	mg/L	0.1000		101	85-115			
LCS Dup (1810242-BSD1)				Prepared & Analyzed: 10/23/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	1	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	0.8	20	
Copper	0.050	0.00050	mg/L	0.05000		99	85-115	1	20	
Lead	0.049	0.00050	mg/L	0.05000		99	85-115	2	20	
Zinc	0.10	0.040	mg/L	0.1000		100	85-115	0.7	20	
Matrix Spike (1810242-MS1)		Source: 18J0429-02			Prepared & Analyzed: 10/23/2018					
Arsenic	0.056	0.00050	mg/L	0.05000	0.0025	107	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	ND	99	70-130			
Copper	0.046	0.00050	mg/L	0.05000	0.0017	89	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0054	97	70-130			
Zinc	0.12	0.040	mg/L	0.1000	0.024	96	70-130			
Batch 1810260 - E 200.7 (4.4)										
Blank (1810260-BLK1)				Prepared & Analyzed: 10/23/2018						
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1810260-BS1)				Prepared & Analyzed: 10/23/2018						
Calcium	11	4.0	mg/L	10.00		109	85-115			
Magnesium	11	3.0	mg/L	10.00		108	85-115			
LCS Dup (1810260-BSD1)				Prepared & Analyzed: 10/23/2018						
Calcium	9.9	4.0	mg/L	10.00		99	85-115	10	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	7	20	
Matrix Spike (1810260-MS1)		Source: 18J0476-01			Prepared & Analyzed: 10/23/2018					
Calcium	36	4.0	mg/L	10.00	30	59	70-130			M3
Magnesium	20	3.0	mg/L	10.00	11	88	70-130			

Outfall 1 (Trench) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Arsenic ✓	X	X	
Cadmium ✓	X	X	
Copper ✓	X	X	
Lead ✓	X	X	
Zinc ✓	X	X	
Major Cations			
Hardness ✓	X	X	

FIELD MEASUREMENTS	
pH	
Specific conductance	
Temperature	
Turbidity	
Flow	
Appearance	

Outfall 2 (Trench) and Outfall 3 (Alta) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper ✓	X	X	
Major Cations			
Hardness ✓	X	X	

FIELD MEASUREMENTS	
	pH
	Specific conductance
	Temperature
	Turbidity
	Flow
	Appearance



June 17, 2019

Sarah Richman
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (805) 617-9300
FAX

Work Order No.: 19E0392

RE: Storm Water

Dear Sarah Richman,

Turner Laboratories, Inc. received 1 sample(s) on 05/15/2019 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: Storm Water
Work Order: 19E0392
Date Received: 05/15/2019

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
19E0392-01	Outfall#2-051319-07:50	Storm Water	05/13/2019 0750

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19E0392
Date Received: 05/15/2019

Case Narrative

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: Storm Water
Work Order: 19E0392
Lab Sample ID: 19E0392-01

Client Sample ID: Outfall#2-051319-07:50
Collection Date/Time: 05/13/2019 0750
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	2600		22		mg/L	1	05/16/2019 0850	05/16/2019 1748	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	3800				mg/L	1	05/16/2019 1115	05/20/2019 1232	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	470		4.0		mg/L	1	05/16/2019 0850	05/16/2019 1748	MH
Magnesium	350		3.0		mg/L	1	05/16/2019 0850	05/16/2019 1748	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.025		0.0050		mg/L	10	05/16/2019 0850	05/20/2019 1114	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	660		4.0		mg/L	1	05/16/2019 1115	05/20/2019 1232	MH
Magnesium	510		3.0		mg/L	1	05/16/2019 1115	05/20/2019 1232	MH
ICP/MS Total Metals-E200.8 (5.4)									
Copper	1.1		0.0050	M3	mg/L	10	05/24/2019 0900	05/28/2019 1229	MH
Copper	0.51		0.0050		mg/L	10	05/16/2019 1030	05/17/2019 1431	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19E0392
Date Received: 05/15/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1905170 - E 200.7 (4.4)										
Blank (1905170-BLK1)				Prepared & Analyzed: 05/16/2019						
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1905170-BS1)				Prepared & Analyzed: 05/16/2019						
Calcium	10	4.0	mg/L	10.00		102	85-115			
Magnesium	9.9	3.0	mg/L	10.00		99	85-115			
LCS Dup (1905170-BSD1)				Prepared & Analyzed: 05/16/2019						
Calcium	10	4.0	mg/L	10.00		102	85-115	0.8	20	
Magnesium	9.7	3.0	mg/L	10.00		97	85-115	1	20	
Matrix Spike (1905170-MS1)				Source: 19E0355-01		Prepared & Analyzed: 05/16/2019				
Calcium	63	4.0	mg/L	10.00	55	84	70-130			
Magnesium	37	3.0	mg/L	10.00	27	100	70-130			
Batch 1905172 - E 200.8 (5.4)										
Blank (1905172-BLK1)				Prepared & Analyzed: 05/20/2019						
Copper	ND	0.00050	mg/L							
LCS (1905172-BS1)				Prepared & Analyzed: 05/20/2019						
Copper	0.045	0.00050	mg/L	0.05000		90	85-115			
LCS Dup (1905172-BSD1)				Prepared & Analyzed: 05/20/2019						
Copper	0.046	0.00050	mg/L	0.05000		91	85-115	1	20	
Matrix Spike (1905172-MS1)				Source: 19E0355-01		Prepared & Analyzed: 05/20/2019				
Copper	0.052	0.00050	mg/L	0.05000	0.0091	85	70-130			
Batch 1905194 - E200.8 (5.4)										
Blank (1905194-BLK1)				Prepared: 05/16/2019 Analyzed: 05/17/2019						
Copper	ND	0.00050	mg/L							
LCS (1905194-BS1)				Prepared: 05/16/2019 Analyzed: 05/17/2019						
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
LCS Dup (1905194-BSD1)				Prepared: 05/16/2019 Analyzed: 05/17/2019						
Copper	0.053	0.00050	mg/L	0.05000		105	85-115	2	20	
Matrix Spike (1905194-MS1)				Source: 19E0374-01		Prepared: 05/16/2019 Analyzed: 05/17/2019				
Copper	0.17	0.00050	mg/L	0.05000	0.12	89	70-130			
Matrix Spike (1905194-MS2)				Source: 19E0374-02		Prepared: 05/16/2019 Analyzed: 05/17/2019				
Copper	0.16	0.00050	mg/L	0.05000	0.11	99	70-130			
Batch 1905198 - E200.7 (4.4)										
Blank (1905198-BLK1)				Prepared: 05/16/2019 Analyzed: 05/20/2019						
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 19E0392
Date Received: 05/15/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1905198 - E200.7 (4.4)										
LCS (1905198-BS1)				Prepared: 05/16/2019 Analyzed: 05/20/2019						
Calcium	9.2	4.0	mg/L	10.00		92	85-115			
Magnesium	9.3	3.0	mg/L	10.00		93	85-115			
LCS Dup (1905198-BSD1)				Prepared: 05/16/2019 Analyzed: 05/20/2019						
Calcium	9.1	4.0	mg/L	10.00		91	85-115	1	20	
Magnesium	9.2	3.0	mg/L	10.00		92	85-115	2	20	
Matrix Spike (1905198-MS1)		Source: 19E0234-02		Prepared: 05/16/2019 Analyzed: 05/20/2019						
Calcium	180	4.0	mg/L	10.00	180	NR	70-130			M3
Magnesium	43	3.0	mg/L	10.00	37	68	70-130			M3
Batch 1905299 - E200.8 (5.4)										
Blank (1905299-BLK1)				Prepared: 05/24/2019 Analyzed: 05/28/2019						
Copper	ND	0.00050	mg/L							
LCS (1905299-BS1)				Prepared: 05/24/2019 Analyzed: 05/28/2019						
Copper	0.050	0.00050	mg/L	0.05000		99	85-115			
LCS Dup (1905299-BSD1)				Prepared: 05/24/2019 Analyzed: 05/28/2019						
Copper	0.050	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Matrix Spike (1905299-MS1)		Source: 19E0485-01		Prepared: 05/24/2019 Analyzed: 05/28/2019						
Copper	0.046	0.00050	mg/L	0.05000	0.0031	86	70-130			
Matrix Spike (1905299-MS2)		Source: 19E0392-01RE1		Prepared: 05/24/2019 Analyzed: 05/28/2019						
Copper	1.1	0.0050	mg/L	0.05000	1.1	24	70-130			M3

Outfall 2 (Trench) and Outfall 3 (Alta) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper	X	X	
Major Cations			
Hardness	X	X	

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance



July 26, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18G0398

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 07/12/2018 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.

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Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Business Development

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0398
Date Received: 07/12/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18G0398-01	Outfall #2	Storm Water	07/11/2018 1130

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0398
Date Received: 07/12/2018

Case Narrative

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: Storm Water
Work Order: 18G0398
Lab Sample ID: 18G0398-01

Client Sample ID: Outfall #2
Collection Date/Time: 07/11/2018 1130
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	330		22		mg/L	1	07/17/2018 1440	07/19/2018 1519	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	370				mg/L	1	07/19/2018 1020	07/20/2018 1317	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	75		4.0		mg/L	1	07/17/2018 1440	07/19/2018 1519	MH
Magnesium	34		3.0		mg/L	1	07/17/2018 1440	07/19/2018 1519	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0038		0.00050		mg/L	1	07/19/2018 1300	07/20/2018 1346	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	80		4.0		mg/L	1	07/19/2018 1020	07/20/2018 1317	MH
Copper	0.046		0.020		mg/L	1	07/19/2018 1020	07/20/2018 1317	MH
Magnesium	41		3.0		mg/L	1	07/19/2018 1020	07/20/2018 1317	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0398
Date Received: 07/12/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807203 - E 200.7 (4.4)										
Blank (1807203-BLK1)				Prepared & Analyzed: 07/19/2018						
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1807203-BS1)				Prepared & Analyzed: 07/19/2018						
Calcium	10	4.0	mg/L	10.00		100	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
LCS Dup (1807203-BSD1)				Prepared & Analyzed: 07/19/2018						
Calcium	9.5	4.0	mg/L	10.00		95	85-115	5	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	3	20	
Matrix Spike (1807203-MS1)				Source: 18G0286-01		Prepared & Analyzed: 07/19/2018				
Calcium	25	4.0	mg/L	10.00	16	90	70-130			
Magnesium	13	3.0	mg/L	10.00	3.0	96	70-130			
Matrix Spike (1807203-MS2)				Source: 18G0340-01		Prepared & Analyzed: 07/19/2018				
Calcium	48	4.0	mg/L	10.00	36	114	70-130			
Magnesium	16	3.0	mg/L	10.00	5.6	100	70-130			
Batch 1807206 - E200.7 (4.4)										
Blank (1807206-BLK1)				Prepared: 07/19/2018 Analyzed: 07/20/2018						
Calcium	ND	4.0	mg/L							
Copper	ND	0.020	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1807206-BS1)				Prepared: 07/19/2018 Analyzed: 07/20/2018						
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Copper	0.24	0.020	mg/L	0.2500		96	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
LCS Dup (1807206-BSD1)				Prepared: 07/19/2018 Analyzed: 07/20/2018						
Calcium	9.7	4.0	mg/L	10.00		97	85-115	2	20	
Copper	0.24	0.020	mg/L	0.2500		96	85-115	0.5	20	
Magnesium	9.9	3.0	mg/L	10.00		99	85-115	0.6	20	
Matrix Spike (1807206-MS1)				Source: 18G0299-01		Prepared: 07/19/2018 Analyzed: 07/20/2018				
Calcium	50	4.0	mg/L	10.00	41	88	70-130			
Copper	0.28	0.020	mg/L	0.2500	0.0091	110	70-130			
Magnesium	770	30	mg/L	10.00	790	NR	70-130			M3
Matrix Spike (1807206-MS2)				Source: 18G0325-01		Prepared: 07/19/2018 Analyzed: 07/20/2018				
Calcium	400	4.0	mg/L	10.00	400	NR	70-130			M3
Copper	0.27	0.020	mg/L	0.2500	0.016	103	70-130			
Magnesium	110	3.0	mg/L	10.00	98	82	70-130			
Batch 1807208 - E 200.8 (5.4)										
Blank (1807208-BLK1)				Prepared & Analyzed: 07/20/2018						
Copper	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0398
Date Received: 07/12/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807208 - E 200.8 (5.4)										
LCS (1807208-BS1)				Prepared & Analyzed: 07/20/2018						
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
LCS Dup (1807208-BSD1)				Prepared & Analyzed: 07/20/2018						
Copper	0.051	0.00050	mg/L	0.05000		102	85-115	0.4	20	
Matrix Spike (1807208-MS1)		Source: 18G0398-01		Prepared & Analyzed: 07/20/2018						
Copper	0.049	0.00050	mg/L	0.05000	0.0038	90	70-130			

Outfall 2 (Trench) and Outfall 3 (Alta) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper	X	X	
Major Cations			
Hardness	X	X	

FIELD MEASUREMENTS	
	pH
	Specific conductance
	Temperature
	Turbidity
	Flow
	Appearance



July 26, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18G0425

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 07/13/2018 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.

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Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Business Development

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18G0425-01	Outfall 1	Storm Water	07/13/2018 0810
18G0425-02	Outfall 3	Storm Water	07/13/2018 0810

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

Case Narrative

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: Storm Water
Work Order: 18G0425
Lab Sample ID: 18G0425-01

Client Sample ID: Outfall 1
Collection Date/Time: 07/13/2018 0810
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	110		22		mg/L	1	07/17/2018 1440	07/19/2018 1523	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	210				mg/L	1	07/19/2018 1020	07/20/2018 1329	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	21		4.0		mg/L	1	07/17/2018 1440	07/19/2018 1523	MH
Magnesium	14		3.0		mg/L	1	07/17/2018 1440	07/19/2018 1523	MH
Zinc	ND		0.040		mg/L	1	07/17/2018 1440	07/19/2018 1524	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0044		0.00050		mg/L	1	07/17/2018 1440	07/20/2018 1423	MH
Cadmium	ND		0.00025		mg/L	1	07/17/2018 1440	07/20/2018 1423	MH
Copper	0.0045		0.00050		mg/L	1	07/17/2018 1440	07/20/2018 1423	MH
Lead	0.00061		0.00050		mg/L	1	07/17/2018 1440	07/20/2018 1423	MH
ICP Total Metals-E200.7 (4.4)									
Arsenic	0.11		0.040		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH
Cadmium	0.0039		0.0020		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH
Calcium	30		4.0		mg/L	1	07/19/2018 1020	07/20/2018 1329	MH
Copper	0.14		0.020		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH
Lead	0.96		0.040		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH
Magnesium	33		3.0		mg/L	1	07/19/2018 1020	07/20/2018 1329	MH
Zinc	2.1		0.040		mg/L	1	07/19/2018 1020	07/20/2018 1330	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Lab Sample ID: 18G0425-02

Client Sample ID: Outfall 3
Collection Date/Time: 07/13/2018 0810
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	40		22		mg/L	1	07/19/2018 1300	07/24/2018 1421	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	170				mg/L	1	07/19/2018 1020	07/20/2018 1333	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	9.6		4.0		mg/L	1	07/19/2018 1300	07/24/2018 1421	MH
Magnesium	4.0		3.0		mg/L	1	07/19/2018 1300	07/24/2018 1421	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.046		0.00050		mg/L	1	07/19/2018 1300	07/20/2018 1439	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	24		4.0		mg/L	1	07/19/2018 1020	07/20/2018 1333	MH
Copper	0.20		0.020		mg/L	1	07/19/2018 1020	07/20/2018 1334	MH
Magnesium	28		3.0		mg/L	1	07/19/2018 1020	07/20/2018 1333	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807203 - E 200.7 (4.4)										
Blank (1807203-BLK1) Prepared & Analyzed: 07/19/2018										
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1807203-BS1) Prepared & Analyzed: 07/19/2018										
Calcium	10	4.0	mg/L	10.00		100	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
Zinc	0.50	0.040	mg/L	0.5000		101	85-115			
LCS Dup (1807203-BSD1) Prepared & Analyzed: 07/19/2018										
Calcium	9.5	4.0	mg/L	10.00		95	85-115	5	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	3	20	
Zinc	0.50	0.040	mg/L	0.5000		101	85-115	0.07	20	
Matrix Spike (1807203-MS1) Source: 18G0286-01 Prepared & Analyzed: 07/19/2018										
Calcium	25	4.0	mg/L	10.00	16	90	70-130			
Magnesium	13	3.0	mg/L	10.00	3.0	96	70-130			
Zinc	0.50	0.040	mg/L	0.5000	ND	100	70-130			
Matrix Spike (1807203-MS2) Source: 18G0340-01 Prepared & Analyzed: 07/19/2018										
Calcium	48	4.0	mg/L	10.00	36	114	70-130			
Magnesium	16	3.0	mg/L	10.00	5.6	100	70-130			
Zinc	0.50	0.040	mg/L	0.5000	0.0072	100	70-130			
Batch 1807206 - E200.7 (4.4)										
Blank (1807206-BLK1) Prepared: 07/19/2018 Analyzed: 07/20/2018										
Arsenic	ND	0.040	mg/L							
Cadmium	ND	0.0020	mg/L							
Calcium	ND	4.0	mg/L							
Copper	ND	0.020	mg/L							
Lead	ND	0.040	mg/L							
Magnesium	ND	3.0	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1807206-BS1) Prepared: 07/19/2018 Analyzed: 07/20/2018										
Arsenic	1.94	0.040	mg/L	2.000		97	85-115			
Cadmium	0.049	0.0020	mg/L	0.05000		98	85-115			
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Copper	0.24	0.020	mg/L	0.2500		96	85-115			
Lead	0.50	0.040	mg/L	0.5000		100	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Zinc	0.48	0.040	mg/L	0.5000		95	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807206 - E200.7 (4.4)										
LCS Dup (1807206-BSD1)				Prepared: 07/19/2018 Analyzed: 07/20/2018						
Arsenic	1.96	0.040	mg/L	2.000		98	85-115	0.9	20	
Cadmium	0.049	0.0020	mg/L	0.05000		98	85-115	0.6	20	
Calcium	9.7	4.0	mg/L	10.00		97	85-115	2	20	
Copper	0.24	0.020	mg/L	0.2500		96	85-115	0.5	20	
Lead	0.50	0.040	mg/L	0.5000		101	85-115	0.4	20	
Magnesium	9.9	3.0	mg/L	10.00		99	85-115	0.6	20	
Zinc	0.49	0.040	mg/L	0.5000		97	85-115	2	20	
Matrix Spike (1807206-MS1)				Source: 18G0299-01		Prepared: 07/19/2018 Analyzed: 07/20/2018				
Arsenic	2.05	0.040	mg/L	2.000	0.0345	101	70-130			
Cadmium	0.045	0.0020	mg/L	0.05000	ND	91	70-130			
Calcium	50	4.0	mg/L	10.00	41	88	70-130			
Copper	0.28	0.020	mg/L	0.2500	0.0091	110	70-130			
Lead	0.24	0.040	mg/L	0.5000	ND	48	70-130			M7
Magnesium	770	30	mg/L	10.00	790	NR	70-130			M3
Zinc	0.46	0.040	mg/L	0.5000	ND	92	70-130			
Matrix Spike (1807206-MS2)				Source: 18G0325-01		Prepared: 07/19/2018 Analyzed: 07/20/2018				
Arsenic	2.05	0.040	mg/L	2.000	0.0206	101	70-130			
Cadmium	0.042	0.0020	mg/L	0.05000	ND	85	70-130			
Calcium	400	4.0	mg/L	10.00	400	NR	70-130			M3
Copper	0.27	0.020	mg/L	0.2500	0.016	103	70-130			
Lead	0.43	0.040	mg/L	0.5000	ND	87	70-130			
Magnesium	110	3.0	mg/L	10.00	98	82	70-130			
Zinc	0.51	0.040	mg/L	0.5000	0.045	92	70-130			
Batch 1807208 - E 200.8 (5.4)										
Blank (1807208-BLK1)				Prepared & Analyzed: 07/20/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
LCS (1807208-BS1)				Prepared & Analyzed: 07/20/2018						
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115			
Cadmium	0.052	0.00025	mg/L	0.05000		104	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
LCS Dup (1807208-BSD1)				Prepared & Analyzed: 07/20/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	0.8	20	
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115	2	20	
Copper	0.051	0.00050	mg/L	0.05000		102	85-115	0.4	20	
Lead	0.049	0.00050	mg/L	0.05000		99	85-115	1	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18G0425
Date Received: 07/13/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807208 - E 200.8 (5.4)										
Matrix Spike (1807208-MS1)		Source: 18G0398-01			Prepared & Analyzed: 07/20/2018					
Arsenic	0.061	0.00050	mg/L	0.05000	0.0084	105	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	0.00013	98	70-130			
Copper	0.049	0.00050	mg/L	0.05000	0.0038	90	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00012	100	70-130			
Batch 1807247 - E 200.7 (4.4)										
Blank (1807247-BLK1)		Prepared & Analyzed: 07/24/2018								
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1807247-BS1)		Prepared & Analyzed: 07/24/2018								
Calcium	9.4	4.0	mg/L	10.00		94	85-115			
Magnesium	9.5	3.0	mg/L	10.00		95	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	
Magnesium	9.5	3.0	mg/L	10.00		95	85-115	0.5	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			
Magnesium	20	3.0	mg/L	10.00	11	93	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			
Magnesium	13	3.0	mg/L	10.00	4.0	95	70-130			

STORMWATER SAMPLE FORM

Field Staff Robert Dodson

Company AMI

Weather Cloudy

Notes _____

Rainfall (inches) 1.74"

Sample Location	Sample ID	Flow (gpm)	Sample Date	Time Sampled	Temp °C	pH	Specific Conductivity (µs/cm)	Turbidity (NTU)	Appearance of Water: (color, odor, etc) or other notes
Outfall 1	Outfall 7-13-18		7-13-18	8:10 AM	21°C	6.75	396	1100	Murky, brown, no odor
Outfall 3	7-13-18		7-13-18	8:10 AM	20.2°C	7.29	161.2	1060	Murky, brown, no odor

Sample Laboratory Information

Water Quality Meter

Container Volume	No of Containers	Filtered Y/N	Preservative	Lab Analysis	Meter:
500	2	NO	No	DIS + TSS	pH: YSI Professional Plus Turbidity: ● Geotech Portable Turbidity Meter
250	2	NO	Yes	Total	
					Calibration Date: <u>7-13-18</u>

Dissolved Metals - Filter (0.45 micron filter) prior to placing into 250 ml container with nitric acid preservative.

Total Metals - 250 ml container with nitric acid preservative.

TSS, Hardness (Calcium, Magnesium) - 250 ml container with NO preservative.



August 20, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18H0223

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 08/07/2018 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: Storm Water
Work Order: 18H0223
Date Received: 08/07/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18H0223-01	Outfall 1	Storm Water	08/06/2018 1030
18H0223-02	Outfall 3	Storm Water	08/06/2018 1230

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18H0223
Date Received: 08/07/2018

Case Narrative

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: Storm Water
Work Order: 18H0223
Lab Sample ID: 18H0223-01

Client Sample ID: Outfall 1
Collection Date/Time: 08/06/2018 1030
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	960		22		mg/L	1	08/08/2018 1600	08/14/2018 1409	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	4500				mg/L	20	08/09/2018 1200	08/13/2018 1222	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	220		4.0		mg/L	1	08/08/2018 1600	08/14/2018 1409	MH
Magnesium	100		3.0		mg/L	1	08/08/2018 1600	08/14/2018 1409	MH
Zinc	ND		0.040		mg/L	1	08/08/2018 1600	08/14/2018 1409	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0037		0.00050		mg/L	1	08/08/2018 1600	08/15/2018 1600	MH
Cadmium	0.00034		0.00025		mg/L	1	08/08/2018 1600	08/15/2018 1600	MH
Copper	0.0013		0.00050		mg/L	1	08/08/2018 1600	08/15/2018 1600	MH
Lead	ND		0.00050		mg/L	1	08/08/2018 1600	08/15/2018 1600	MH
ICP Total Metals-E200.7 (4.4)									
Arsenic	0.35		0.040		mg/L	1	08/09/2018 1200	08/10/2018 1315	MH
Cadmium	0.12		0.0020		mg/L	1	08/09/2018 1200	08/10/2018 1315	MH
Calcium	630		80		mg/L	20	08/09/2018 1200	08/13/2018 1222	MH
Copper	2.5		0.020		mg/L	1	08/09/2018 1200	08/10/2018 1315	MH
Lead	3.5		0.040		mg/L	1	08/09/2018 1200	08/10/2018 1315	MH
Magnesium	700		60		mg/L	20	08/09/2018 1200	08/13/2018 1222	MH
Zinc	31		0.80		mg/L	20	08/09/2018 1200	08/13/2018 1222	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18H0223
Lab Sample ID: 18H0223-02

Client Sample ID: Outfall 3
Collection Date/Time: 08/06/2018 1230
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	ND		22		mg/L	1	08/08/2018 1600	08/14/2018 1413	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	45				mg/L	1	08/09/2018 1200	08/10/2018 1319	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	5.9		4.0		mg/L	1	08/08/2018 1600	08/14/2018 1413	MH
Magnesium	ND		3.0		mg/L	1	08/08/2018 1600	08/14/2018 1413	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0049		0.00050		mg/L	1	08/08/2018 1600	08/15/2018 1610	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	9.2		4.0		mg/L	1	08/09/2018 1200	08/10/2018 1319	MH
Copper	0.030		0.020		mg/L	1	08/09/2018 1200	08/10/2018 1319	MH
Magnesium	5.3		3.0		mg/L	1	08/09/2018 1200	08/10/2018 1319	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18H0223
Date Received: 08/07/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
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Batch 1808132 - E200.7 (4.4)

Blank (1808132-BLK1)

Prepared: 08/09/2018 Analyzed: 08/10/2018

Arsenic	ND	0.040	mg/L
Cadmium	ND	0.0020	mg/L
Calcium	ND	4.0	mg/L
Copper	ND	0.020	mg/L
Lead	ND	0.040	mg/L
Magnesium	ND	3.0	mg/L
Zinc	ND	0.040	mg/L

LCS (1808132-BS1)

Prepared: 08/09/2018 Analyzed: 08/10/2018

Arsenic	1.96	0.040	mg/L	2.000		98	85-115
Cadmium	0.047	0.0020	mg/L	0.05000		95	85-115
Calcium	9.9	4.0	mg/L	10.00		99	85-115
Copper	0.23	0.020	mg/L	0.2500		92	85-115
Lead	0.47	0.040	mg/L	0.5000		94	85-115
Magnesium	10	3.0	mg/L	10.00		100	85-115
Zinc	0.46	0.040	mg/L	0.5000		92	85-115

LCS Dup (1808132-BSD1)

Prepared: 08/09/2018 Analyzed: 08/10/2018

Arsenic	1.96	0.040	mg/L	2.000		98	85-115	0.3	20
Cadmium	0.047	0.0020	mg/L	0.05000		95	85-115	0.1	20
Calcium	9.8	4.0	mg/L	10.00		98	85-115	0.9	20
Copper	0.23	0.020	mg/L	0.2500		93	85-115	0.9	20
Lead	0.47	0.040	mg/L	0.5000		94	85-115	0.2	20
Magnesium	10	3.0	mg/L	10.00		100	85-115	0.3	20
Zinc	0.46	0.040	mg/L	0.5000		92	85-115	0.8	20

Matrix Spike (1808132-MS1)

Source: 18H0051-02

Prepared: 08/09/2018 Analyzed: 08/10/2018

Arsenic	2.10	0.040	mg/L	2.000	0.0328	103	70-130		
Cadmium	0.044	0.0020	mg/L	0.05000	ND	89	70-130		
Calcium	240	4.0	mg/L	10.00	240	13	70-130		M3
Copper	0.37	0.020	mg/L	0.2500	0.11	104	70-130		
Lead	0.45	0.040	mg/L	0.5000	ND	89	70-130		
Magnesium	60	3.0	mg/L	10.00	51	86	70-130		
Zinc	0.65	0.040	mg/L	0.5000	0.18	94	70-130		

Batch 1808173 - E 200.7 (4.4)

Blank (1808173-BLK1)

Prepared & Analyzed: 08/14/2018

Calcium	ND	4.0	mg/L
Magnesium	ND	3.0	mg/L
Zinc	ND	0.040	mg/L

LCS (1808173-BS1)

Prepared & Analyzed: 08/14/2018

Calcium	9.4	4.0	mg/L	10.00		94	85-115
Magnesium	9.5	3.0	mg/L	10.00		95	85-115
Zinc	0.47	0.040	mg/L	0.5000		93	85-115

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18H0223
Date Received: 08/07/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808173 - E 200.7 (4.4)										
LCS Dup (1808173-BSD1)				Prepared & Analyzed: 08/14/2018						
Calcium	9.3	4.0	mg/L	10.00		93	85-115	0.8	20	
Magnesium	9.4	3.0	mg/L	10.00		94	85-115	0.1	20	
Zinc	0.47	0.040	mg/L	0.5000		94	85-115	0.6	20	
Matrix Spike (1808173-MS1)				Source: 18H0223-02		Prepared & Analyzed: 08/14/2018				
Calcium	15	4.0	mg/L	10.00	5.9	91	70-130			
Magnesium	12	3.0	mg/L	10.00	2.2	94	70-130			
Zinc	0.51	0.040	mg/L	0.5000	0.035	95	70-130			
Batch 1808193 - E 200.8 (5.4)										
Blank (1808193-BLK1)				Prepared & Analyzed: 08/15/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
LCS (1808193-BS1)				Prepared & Analyzed: 08/15/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115			
Copper	0.049	0.00050	mg/L	0.05000		99	85-115			
Lead	0.051	0.00050	mg/L	0.05000		102	85-115			
LCS Dup (1808193-BSD1)				Prepared & Analyzed: 08/15/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115	0.4	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	0.03	20	
Copper	0.049	0.00050	mg/L	0.05000		99	85-115	0.1	20	
Lead	0.051	0.00050	mg/L	0.05000		101	85-115	0.5	20	
Matrix Spike (1808193-MS1)				Source: 18H0223-01		Prepared & Analyzed: 08/15/2018				
Arsenic	0.058	0.00050	mg/L	0.05000	0.0037	108	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.00034	96	70-130			
Copper	0.046	0.00050	mg/L	0.05000	0.0013	90	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.000099	103	70-130			

Outfall 1 (Trench) Stormwater

Analyte	LABORATORY		
	Total	Dissolved	Other
Metals			
Arsenic	X	X	
Cadmium	X	X	
Copper	X	X	
Lead	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		X

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance

Outfall 2 (Trench) and Outfall 3 (Alta) Stormwater

Analyte	LABORATORY		
	Total	Dissolved	Other
Metals			
Copper	X	X	
Major Cations			
Hardness	X	X	

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance



October 24, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18J0427
Order Name: South 32

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 10/12/2018 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: Storm Water
Work Order: 18J0427
Date Received: 10/12/2018

Order: South 32

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18J0427-01	Outfall #1	Storm Water	10/12/2018 0830
18J0427-02	Outfall #2	Storm Water	10/12/2018 0846

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0427
Date Received: 10/12/2018

Case Narrative

- B1 Target analyte detected in the method 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.
 - 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: Storm Water
Work Order: 18J0427
Lab Sample ID: 18J0427-01

Client Sample ID: Outfall #1
Collection Date/Time: 10/12/2018 0830
Matrix: Storm Water
Order Name: South 32

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	1300		110		mg/L	5	10/22/2018 1135	10/23/2018 1654	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1900				mg/L	1	10/18/2018 1215	10/23/2018 1142	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	310		20		mg/L	5	10/22/2018 1135	10/23/2018 1654	MH
Magnesium	140		15		mg/L	5	10/22/2018 1135	10/23/2018 1654	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0027		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
Cadmium	0.00045		0.00025		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
Copper	0.0013		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
Lead	0.0012		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
Zinc	ND		0.040		mg/L	1	10/22/2018 1135	10/23/2018 1443	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	350		4.0		mg/L	1	10/18/2018 1215	10/23/2018 1142	MH
Copper	0.71		0.020		mg/L	1	10/18/2018 1215	10/23/2018 1142	MH
Magnesium	240		3.0		mg/L	1	10/18/2018 1215	10/23/2018 1142	MH
ICP/MS Total Metals-E200.8 (5.4)									
Arsenic	0.17		0.00050		mg/L	1	10/18/2018 1000	10/19/2018 1257	MH
Cadmium	0.022		0.00025		mg/L	1	10/18/2018 1000	10/19/2018 1257	MH
Lead	2.5		0.010	B7	mg/L	20	10/18/2018 1000	10/19/2018 1508	MH
Zinc	9.4		0.80		mg/L	20	10/18/2018 1000	10/19/2018 1508	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0427
Lab Sample ID: 18J0427-02

Client Sample ID: Outfall #2
Collection Date/Time: 10/12/2018 0846
Matrix: Storm Water
Order Name: South 32

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	1800		110		mg/L	5	10/22/2018 1135	10/23/2018 1658	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1600				mg/L	10	10/18/2018 1215	10/23/2018 1154	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	490		20		mg/L	5	10/22/2018 1135	10/23/2018 1658	MH
Magnesium	140		15		mg/L	5	10/22/2018 1135	10/23/2018 1658	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0020		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1421	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	420		40		mg/L	10	10/18/2018 1215	10/23/2018 1154	MH
Copper	0.12		0.020		mg/L	1	10/18/2018 1215	10/23/2018 1146	MH
Magnesium	140		3.0		mg/L	1	10/18/2018 1215	10/23/2018 1146	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0427
Date Received: 10/12/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1810222 - E200.8 (5.4)										
Blank (1810222-BLK1)				Prepared: 10/18/2018 Analyzed: 10/19/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Lead	0.0025	0.00050	mg/L							B1
Zinc	ND	0.040	mg/L							
LCS (1810222-BS1)				Prepared: 10/18/2018 Analyzed: 10/19/2018						
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Lead	0.057	0.00050	mg/L	0.05000		115	85-115			
Zinc	0.10	0.040	mg/L	0.1000		102	85-115			
LCS Dup (1810222-BSD1)				Prepared: 10/18/2018 Analyzed: 10/19/2018						
Arsenic	0.049	0.00050	mg/L	0.05000		97	85-115	4	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	5	20	
Lead	0.051	0.00050	mg/L	0.05000		103	85-115	11	20	
Zinc	0.097	0.040	mg/L	0.1000		97	85-115	5	20	
Matrix Spike (1810222-MS1)				Source: 18J0486-04		Prepared: 10/18/2018 Analyzed: 10/19/2018				
Arsenic	0.050	0.00050	mg/L	0.05000	ND	100	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	ND	96	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0014	105	70-130			
Zinc	0.096	0.040	mg/L	0.1000	ND	96	70-130			
Matrix Spike (1810222-MS2)				Source: 18J0486-06		Prepared: 10/18/2018 Analyzed: 10/19/2018				
Arsenic	0.047	0.00050	mg/L	0.05000	0.00016	94	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.000076	94	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.0014	101	70-130			
Zinc	0.094	0.040	mg/L	0.1000	ND	94	70-130			
Batch 1810224 - E200.7 (4.4)										
Blank (1810224-BLK1)				Prepared: 10/18/2018 Analyzed: 10/22/2018						
Calcium	ND	4.0	mg/L							
Copper	ND	0.020	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1810224-BS1)				Prepared: 10/18/2018 Analyzed: 10/22/2018						
Calcium	10	4.0	mg/L	10.00		101	85-115			
Copper	0.24	0.020	mg/L	0.2500		95	85-115			
Magnesium	10	3.0	mg/L	10.00		102	85-115			
LCS Dup (1810224-BSD1)				Prepared: 10/18/2018 Analyzed: 10/22/2018						
Calcium	10	4.0	mg/L	10.00		101	85-115	0.2	20	
Copper	0.24	0.020	mg/L	0.2500		96	85-115	0.5	20	
Magnesium	10	3.0	mg/L	10.00		102	85-115	0.1	20	
Matrix Spike (1810224-MS1)				Source: 18J0154-01		Prepared: 10/18/2018 Analyzed: 10/23/2018				
Calcium	17000		mg/L	10.00	17000	NR	70-130			M3
Copper	0.38		mg/L	0.2500	0.19	75	70-130			
Magnesium	6000		mg/L	10.00	6100	NR	70-130			M3

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0427
Date Received: 10/12/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1810224 - E200.7 (4.4)										
Matrix Spike (1810224-MS2)		Source: 18J0415-01			Prepared: 10/18/2018 Analyzed: 10/22/2018					
Calcium	67	4.0	mg/L	10.00	60	65	70-130			M3
Copper	0.26	0.020	mg/L	0.2500	0.023	97	70-130			
Magnesium	15	3.0	mg/L	10.00	6.4	89	70-130			
Batch 1810242 - E 200.8 (5.4)										
Blank (1810242-BLK1)				Prepared & Analyzed: 10/23/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1810242-BS1)				Prepared & Analyzed: 10/23/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Copper	0.049	0.00050	mg/L	0.05000		98	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Zinc	0.10	0.040	mg/L	0.1000		101	85-115			
LCS Dup (1810242-BSD1)				Prepared & Analyzed: 10/23/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	1	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	0.8	20	
Copper	0.050	0.00050	mg/L	0.05000		99	85-115	1	20	
Lead	0.049	0.00050	mg/L	0.05000		99	85-115	2	20	
Zinc	0.10	0.040	mg/L	0.1000		100	85-115	0.7	20	
Matrix Spike (1810242-MS1)		Source: 18J0429-02			Prepared & Analyzed: 10/23/2018					
Arsenic	0.056	0.00050	mg/L	0.05000	0.0025	107	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	ND	99	70-130			
Copper	0.046	0.00050	mg/L	0.05000	0.0017	89	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0054	97	70-130			
Zinc	0.12	0.040	mg/L	0.1000	0.024	96	70-130			
Batch 1810260 - E 200.7 (4.4)										
Blank (1810260-BLK1)				Prepared & Analyzed: 10/23/2018						
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1810260-BS1)				Prepared & Analyzed: 10/23/2018						
Calcium	11	4.0	mg/L	10.00		109	85-115			
Magnesium	11	3.0	mg/L	10.00		108	85-115			
LCS Dup (1810260-BSD1)				Prepared & Analyzed: 10/23/2018						
Calcium	9.9	4.0	mg/L	10.00		99	85-115	10	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	7	20	
Matrix Spike (1810260-MS1)		Source: 18J0476-01			Prepared & Analyzed: 10/23/2018					
Calcium	36	4.0	mg/L	10.00	30	59	70-130			M3
Magnesium	20	3.0	mg/L	10.00	11	88	70-130			



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 www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 1850427 DATE 10/12/18 PAGE 1 OF 1

PROJECT NAME _____ # _____ CONTACT NAME <u>Johnny Pappas, Sarah Richman</u> COMPANY NAME <u>South 32</u> ADDRESS <u>2210 East Fort Lowell Road</u> CITY <u>Tucson</u> STATE <u>AZ</u> ZIP CODE <u>85719</u> PHONE _____ FAX _____ SAMPLER'S SIGNATURE <u>[Signature]</u>					CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX																																																																																																																																																																																																																																																																																																													
NUMBER OF CONTAINERS <small>Cu/Pb Testings</small>					<u>See attached</u>																																																																																																																																																																																																																																																																																																													
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SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	CONTAINERS	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING	TESTING																																																																																																																																																																																																																																																																																															
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3. RELINQUISHED BY: <u>[Signature]</u> Signature <u>JUDA VILLA</u> Printed Name <u>323</u> Firm <u>10/12/18 10:50</u> Date/Time					4. RECEIVED BY: <u>[Signature]</u> Signature <u>Leandra X. Marshall</u> Printed Name <u>TURNER LABORATORIES, INC.</u> Firm <u>10/12/18 10:50</u> Date/Time					*LEGEND DW = DRINKING WATER GW = GROUNDWATER SD = SOLID SG = SLUDGE SL = SOIL ST = STORMWATER					SPECIAL INSTRUCTIONS/COMMENTS: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Compliance Analysis: <input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td style="width: 33%;">Custody Seals <input checked="" type="checkbox"/></td> <td style="width: 33%;">Preservation Confirmation <input checked="" type="checkbox"/></td> </tr> <tr> <td>ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td>Container Intact <input checked="" type="checkbox"/></td> <td>Appropriate Head Space <input checked="" type="checkbox"/></td> </tr> <tr> <td>Mail ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td>COC/Labels Agree <input checked="" type="checkbox"/></td> <td>Received Within Hold Time <input checked="" type="checkbox"/></td> </tr> </table>															Compliance Analysis: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seals <input checked="" type="checkbox"/>	Preservation Confirmation <input checked="" type="checkbox"/>	ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No	Container Intact <input checked="" type="checkbox"/>	Appropriate Head Space <input checked="" type="checkbox"/>	Mail ADEQ Forms: <input type="checkbox"/> Yes <input type="checkbox"/> No	COC/Labels Agree <input checked="" type="checkbox"/>	Received Within Hold Time <input checked="" type="checkbox"/>																																																																																																																																																																																																																																																																												
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October 26, 2018

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

TEL (802) 235-5563
FAX

Work Order No.: 18J0476

RE: Storm Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 10/16/2018 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: Storm Water
Work Order: 18J0476
Date Received: 10/16/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18J0476-01	Outfall #1	Storm Water	10/16/2018 0830
18J0476-02	Outfall #3	Storm Water	10/16/2018 0845

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0476
Date Received: 10/16/2018

Case Narrative

- B1 Target analyte detected in the method 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.
- 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: Storm Water
Work Order: 18J0476
Lab Sample ID: 18J0476-01

Client Sample ID: Outfall #1
Collection Date/Time: 10/16/2018 0830
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	120		22		mg/L	1	10/22/2018 1135	10/23/2018 1618	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	130				mg/L	1	10/19/2018 1035	10/25/2018 1855	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	30		4.0	M3	mg/L	1	10/22/2018 1135	10/23/2018 1618	MH
Magnesium	11		3.0		mg/L	1	10/22/2018 1135	10/23/2018 1618	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0055		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
Cadmium	ND		0.00025		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
Copper	0.0029		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
Lead	0.00057		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
Zinc	ND		0.040		mg/L	1	10/22/2018 1135	10/23/2018 1448	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	32		4.0		mg/L	1	10/19/2018 1035	10/25/2018 1855	MH
Magnesium	12		3.0		mg/L	1	10/19/2018 1035	10/25/2018 1855	MH
ICP/MS Total Metals-E200.8 (5.4)									
Arsenic	0.0061		0.00050		mg/L	1	10/18/2018 1000	10/19/2018 1313	MH
Cadmium	0.00035		0.00025		mg/L	1	10/18/2018 1000	10/19/2018 1313	MH
Copper	0.012		0.00050		mg/L	1	10/18/2018 1000	10/19/2018 1313	MH
Lead	0.19		0.00050	B7	mg/L	1	10/18/2018 1000	10/19/2018 1313	MH
Zinc	0.11		0.040		mg/L	1	10/18/2018 1000	10/19/2018 1313	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0476
Lab Sample ID: 18J0476-02

Client Sample ID: Outfall #3
Collection Date/Time: 10/16/2018 0845
Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	ND		22		mg/L	1	10/22/2018 1135	10/23/2018 1702	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	31				mg/L	1	10/19/2018 1035	10/25/2018 1900	MH
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	ND		4.0		mg/L	1	10/22/2018 1135	10/23/2018 1702	MH
Magnesium	ND		3.0		mg/L	1	10/22/2018 1135	10/23/2018 1702	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0032		0.00050		mg/L	1	10/22/2018 1135	10/23/2018 1427	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	5.5		4.0		mg/L	1	10/19/2018 1035	10/25/2018 1900	MH
Magnesium	4.1		3.0		mg/L	1	10/19/2018 1035	10/25/2018 1900	MH
ICP/MS Total Metals-E200.8 (5.4)									
Copper	0.023		0.00050		mg/L	1	10/18/2018 1000	10/19/2018 1318	MH

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0476
Date Received: 10/16/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 1810222 - E200.8 (5.4)										
Blank (1810222-BLK1) Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	0.0025	0.00050	mg/L							B1
Zinc	ND	0.040	mg/L							
LCS (1810222-BS1) Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.057	0.00050	mg/L	0.05000		115	85-115			
Zinc	0.10	0.040	mg/L	0.1000		102	85-115			
LCS Dup (1810222-BSD1) Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	0.049	0.00050	mg/L	0.05000		97	85-115	4	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	5	20	
Copper	0.049	0.00050	mg/L	0.05000		97	85-115	6	20	
Lead	0.051	0.00050	mg/L	0.05000		103	85-115	11	20	
Zinc	0.097	0.040	mg/L	0.1000		97	85-115	5	20	
Matrix Spike (1810222-MS1) Source: 18J0486-04 Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	0.050	0.00050	mg/L	0.05000	ND	100	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	ND	96	70-130			
Copper	0.050	0.00050	mg/L	0.05000	0.00019	100	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0014	105	70-130			
Zinc	0.096	0.040	mg/L	0.1000	ND	96	70-130			
Matrix Spike (1810222-MS2) Source: 18J0486-06 Prepared: 10/18/2018 Analyzed: 10/19/2018										
Arsenic	0.047	0.00050	mg/L	0.05000	0.00016	94	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.000076	94	70-130			
Copper	0.049	0.00050	mg/L	0.05000	ND	98	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.0014	101	70-130			
Zinc	0.094	0.040	mg/L	0.1000	ND	94	70-130			
Batch 1810239 - E200.7 (4.4)										
Blank (1810239-BLK1) Prepared: 10/19/2018 Analyzed: 10/25/2018										
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1810239-BS1) Prepared: 10/19/2018 Analyzed: 10/25/2018										
Calcium	10	4.0	mg/L	10.00		103	85-115			
Magnesium	10	3.0	mg/L	10.00		105	85-115			
LCS Dup (1810239-BSD1) Prepared: 10/19/2018 Analyzed: 10/25/2018										
Calcium	10	4.0	mg/L	10.00		103	85-115	0.3	20	
Magnesium	11	3.0	mg/L	10.00		107	85-115	2	20	
Matrix Spike (1810239-MS1) Source: 18J0407-01 Prepared: 10/19/2018 Analyzed: 10/25/2018										
Calcium	88	4.0	mg/L	10.00	76	115	70-130			
Magnesium	28	3.0	mg/L	10.00	17	109	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 18J0476
Date Received: 10/16/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 1810239 - E200.7 (4.4)										
Matrix Spike (1810239-MS2)		Source: 18J0420-02			Prepared: 10/19/2018 Analyzed: 10/25/2018					
Calcium	210	4.0	mg/L	10.00	210	3	70-130			M3
Magnesium	49	3.0	mg/L	10.00	40	89	70-130			
Batch 1810242 - E 200.8 (5.4)										
Blank (1810242-BLK1)				Prepared & Analyzed: 10/23/2018						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1810242-BS1)				Prepared & Analyzed: 10/23/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Copper	0.049	0.00050	mg/L	0.05000		98	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Zinc	0.10	0.040	mg/L	0.1000		101	85-115			
LCS Dup (1810242-BSD1)				Prepared & Analyzed: 10/23/2018						
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	1	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	0.8	20	
Copper	0.050	0.00050	mg/L	0.05000		99	85-115	1	20	
Lead	0.049	0.00050	mg/L	0.05000		99	85-115	2	20	
Zinc	0.10	0.040	mg/L	0.1000		100	85-115	0.7	20	
Matrix Spike (1810242-MS1)		Source: 18J0429-02			Prepared & Analyzed: 10/23/2018					
Arsenic	0.056	0.00050	mg/L	0.05000	0.0025	107	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	ND	99	70-130			
Copper	0.046	0.00050	mg/L	0.05000	0.0017	89	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0054	97	70-130			
Zinc	0.12	0.040	mg/L	0.1000	0.024	96	70-130			
Batch 1810260 - E 200.7 (4.4)										
Blank (1810260-BLK1)				Prepared & Analyzed: 10/23/2018						
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (1810260-BS1)				Prepared & Analyzed: 10/23/2018						
Calcium	11	4.0	mg/L	10.00		109	85-115			
Magnesium	11	3.0	mg/L	10.00		108	85-115			
LCS Dup (1810260-BSD1)				Prepared & Analyzed: 10/23/2018						
Calcium	9.9	4.0	mg/L	10.00		99	85-115	10	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	7	20	
Matrix Spike (1810260-MS1)		Source: 18J0476-01			Prepared & Analyzed: 10/23/2018					
Calcium	36	4.0	mg/L	10.00	30	59	70-130			M3
Magnesium	20	3.0	mg/L	10.00	11	88	70-130			

Outfall 1 (Trench) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Arsenic ✓	X	X	
Cadmium ✓	X	X	
Copper ✓	X	X	
Lead ✓	X	X	
Zinc ✓	X	X	
Major Cations			
Hardness ✓	X	X	

FIELD MEASUREMENTS	
pH	
Specific conductance	
Temperature	
Turbidity	
Flow	
Appearance	

Outfall 2 (Trench) and Outfall 3 (Alta) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper ✓	X	X	
Major Cations			
Hardness ✓	X	X	

FIELD MEASUREMENTS	
	pH
	Specific conductance
	Temperature
	Turbidity
	Flow
	Appearance



February 04, 2021

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

TEL (802) 235-5563
FAX

Work Order No.: 21A0553

RE: Storm Water

Dear Sheena Leon,

Turner Laboratories, Inc. received 2 sample(s) on 01/25/2021 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: Storm Water
Work Order: 21A0553
Date Received: 01/25/2021

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21A0553-01	Out Fall 1 - 01212021	Storm Water	01/21/2021 0826
21A0553-02	Out Fall 2 - 01212021	Storm Water	01/21/2021 0910

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21A0553
Date Received: 01/25/2021

Case Narrative

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.

H5 This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.

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: 02/04/2021

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 21A0553
 Lab Sample ID: 21A0553-01

Client Sample ID: Out Fall 1 - 01212021
 Collection Date/Time: 01/21/2021 0826
 Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Ca-Calculation									
Hardness, Calcium (As CaCO3)	1200				mg/L	1	01/27/2021 1020	01/29/2021 1309	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0030		0.00050		mg/L	1	01/27/2021 1200	01/29/2021 1605	CR
Cadmium	0.00033		0.00025		mg/L	1	01/27/2021 1200	01/29/2021 1605	CR
Copper	0.054		0.00050		mg/L	1	01/27/2021 1200	01/29/2021 1605	CR
Lead	0.000092	0.000057	0.00050	E4	mg/L	1	01/27/2021 1200	01/29/2021 1605	CR
Silver	ND	0.000021	0.00050	E8	mg/L	1	01/27/2021 1200	01/29/2021 1605	CR
Zinc	0.070		0.040		mg/L	1	01/27/2021 1200	01/29/2021 1605	CR
ICP Total Metals-E200.7 (4.4)									
Calcium	460		4.0		mg/L	1	01/27/2021 1020	01/29/2021 1309	MH
ICP/MS Total Metals-E200.8 (5.4)									
Arsenic	0.0024		0.00050		mg/L	1	01/29/2021 1200	02/02/2021 1104	CR
Cadmium	0.00030		0.00025		mg/L	1	01/29/2021 1200	02/02/2021 1104	CR
Copper	0.0059		0.00050		mg/L	1	01/29/2021 1200	02/02/2021 1104	CR
Lead	0.0065		0.00050		mg/L	1	01/29/2021 1200	02/02/2021 1104	CR
Silver	ND		0.00050		mg/L	1	01/29/2021 1200	02/02/2021 1104	CR
Zinc	0.089		0.040		mg/L	1	01/29/2021 1200	02/02/2021 1104	CR
Specific Conductance-SM2510 B									
Conductivity	4800		5.0		µmhos/cm	50	01/26/2021 1428	01/26/2021 1628	LB
Cyanide-SM4500-CN BE									
Cyanide	ND	0.067	0.10	E8	mg/L	1	01/26/2021 0810	01/27/2021 1600	JG
pH-SM4500-H+ B									
pH (pH Units)	7.2			H5	-	1	01/25/2021 1619	01/25/2021 1621	LB
Temperature (°C)	20			H5	-	1	01/25/2021 1619	01/25/2021 1621	LB

Turner Laboratories, Inc.

Date: 02/04/2021

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 21A0553
 Lab Sample ID: 21A0553-02

Client Sample ID: Out Fall 2 - 01212021
 Collection Date/Time: 01/21/2021 0910
 Matrix: Storm Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Ca-Calculation									
Hardness, Calcium (As CaCO3)	760				mg/L	1	01/27/2021 1020	01/29/2021 1313	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.015		0.00050		mg/L	1	01/27/2021 1200	01/29/2021 1611	CR
Lead	0.00010	0.000057	0.00050	E4	mg/L	1	01/27/2021 1200	01/29/2021 1611	CR
Silver	ND	0.000021	0.00050	E8	mg/L	1	01/27/2021 1200	01/29/2021 1611	CR
Zinc	0.23		0.040		mg/L	1	01/27/2021 1200	01/29/2021 1611	CR
ICP Total Metals-E200.7 (4.4)									
Calcium	300		4.0		mg/L	1	01/27/2021 1020	01/29/2021 1313	MH
ICP/MS Total Metals-E200.8 (5.4)									
Copper	0.034		0.00050		mg/L	1	01/29/2021 1200	02/02/2021 1109	CR
Lead	0.053		0.00050		mg/L	1	01/29/2021 1200	02/02/2021 1109	CR
Silver	0.00043	0.000021	0.00050	E4	mg/L	1	01/29/2021 1200	02/02/2021 1109	CR
Zinc	0.47		0.040		mg/L	1	01/29/2021 1200	02/02/2021 1109	CR
Specific Conductance-SM2510 B									
Conductivity	3600		5.0		µmhos/cm	50	01/26/2021 1428	01/26/2021 1628	LB
Cyanide-SM4500-CN BE									
Cyanide	ND	0.067	0.10	E8	mg/L	1	02/03/2021 0820	02/04/2021 1650	JG
pH-SM4500-H+ B									
pH (pH Units)	6.8			H5	-	1	01/25/2021 1619	01/25/2021 1623	LB
Temperature (°C)	20			H5	-	1	01/25/2021 1619	01/25/2021 1623	LB

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21A0553
Date Received: 01/25/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 2101214 - E 200.8 (5.4)										
Blank (2101214-BLK1)				Prepared & Analyzed: 01/28/2021						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Silver	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2101214-BS1)				Prepared & Analyzed: 01/28/2021						
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		103	85-115			
Copper	0.050	0.00050	mg/L	0.05000		100	85-115			
Lead	0.052	0.00050	mg/L	0.05000		104	85-115			
Silver	0.048	0.00050	mg/L	0.05000		97	85-115			
Zinc	0.11	0.040	mg/L	0.1000		109	85-115			
LCS Dup (2101214-BSD1)				Prepared & Analyzed: 01/28/2021						
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.3	20	
Cadmium	0.051	0.00025	mg/L	0.05000		103	85-115	0.06	20	
Copper	0.050	0.00050	mg/L	0.05000		99	85-115	0.8	20	
Lead	0.051	0.00050	mg/L	0.05000		101	85-115	2	20	
Silver	0.048	0.00050	mg/L	0.05000		97	85-115	0.04	20	
Zinc	0.11	0.040	mg/L	0.1000		108	85-115	0.7	20	
Matrix Spike (2101214-MS1)				Source: 21A0477-01		Prepared & Analyzed: 01/28/2021				
Arsenic	0.052	0.00050	mg/L	0.05000	0.00051	102	70-130			
Cadmium	0.051	0.00025	mg/L	0.05000	0.00016	101	70-130			
Copper	0.051	0.00050	mg/L	0.05000	0.0049	92	70-130			
Lead	0.053	0.00050	mg/L	0.05000	0.00013	106	70-130			
Silver	0.046	0.00050	mg/L	0.05000	0.000063	92	70-130			
Zinc	1.1	0.20	mg/L	0.1000	0.98	94	70-130			
Matrix Spike (2101214-MS2)				Source: 21A0477-08		Prepared & Analyzed: 01/28/2021				
Arsenic	0.057	0.00050	mg/L	0.05000	0.00096	112	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.000082	97	70-130			
Copper	0.048	0.00050	mg/L	0.05000	0.0018	93	70-130			
Lead	0.053	0.00050	mg/L	0.05000	0.00024	105	70-130			
Silver	0.041	0.00050	mg/L	0.05000	0.000096	81	70-130			
Zinc	0.12	0.040	mg/L	0.1000	0.017	100	70-130			
Batch 2101289 - E200.7 (4.4)										
Blank (2101289-BLK1)				Prepared: 01/27/2021 Analyzed: 01/29/2021						
Calcium	ND	4.0	mg/L							
LCS (2101289-BS1)				Prepared: 01/27/2021 Analyzed: 01/29/2021						
Calcium	9.7	4.0	mg/L	10.00		97	85-115			
LCS Dup (2101289-BSD1)				Prepared: 01/27/2021 Analyzed: 01/29/2021						
Calcium	10	4.0	mg/L	10.00		102	85-115	5	20	

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21A0553
Date Received: 01/25/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2101289 - E200.7 (4.4)										
Matrix Spike (2101289-MS1)		Source: 21A0514-02			Prepared: 01/27/2021 Analyzed: 01/29/2021					
Calcium	200	4.0	mg/L	10.00	190	102	70-130			
Matrix Spike (2101289-MS2)		Source: 21A0595-01			Prepared: 01/27/2021 Analyzed: 01/29/2021					
Calcium	64	4.0	mg/L	10.00	57	70	70-130			
Batch 2102010 - E200.8 (5.4)										
Blank (2102010-BLK1)				Prepared: 01/29/2021 Analyzed: 02/01/2021						
Arsenic	0.00027	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	0.00043	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Silver	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2102010-BS1)				Prepared: 01/29/2021 Analyzed: 02/01/2021						
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		99	85-115			
Copper	0.049	0.00050	mg/L	0.05000		97	85-115			
Lead	0.048	0.00050	mg/L	0.05000		97	85-115			
Silver	0.048	0.00050	mg/L	0.05000		97	85-115			
Zinc	0.097	0.040	mg/L	0.1000		97	85-115			
LCS Dup (2102010-BSD1)				Prepared: 01/29/2021 Analyzed: 02/01/2021						
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115	3	20	
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115	3	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	3	20	
Lead	0.051	0.00050	mg/L	0.05000		102	85-115	5	20	
Silver	0.050	0.00050	mg/L	0.05000		100	85-115	3	20	
Zinc	0.10	0.040	mg/L	0.1000		100	85-115	4	20	
Matrix Spike (2102010-MS1)		Source: 21A0623-01			Prepared: 01/29/2021 Analyzed: 02/01/2021					
Arsenic	0.053	0.00050	mg/L	0.05000	0.00063	104	70-130			
Cadmium	0.051	0.00025	mg/L	0.05000	0.00062	101	70-130			
Copper	0.061	0.00050	mg/L	0.05000	0.0036	114	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.00025	103	70-130			
Silver	0.046	0.00050	mg/L	0.05000	ND	93	70-130			
Zinc	0.15	0.040	mg/L	0.1000	0.057	96	70-130			
Matrix Spike (2102010-MS2)		Source: 21A0642-01			Prepared: 01/29/2021 Analyzed: 02/01/2021					
Arsenic	0.11	0.00050	mg/L	0.05000	0.058	96	70-130			
Cadmium	0.051	0.00025	mg/L	0.05000	0.00048	101	70-130			
Copper	0.055	0.00050	mg/L	0.05000	0.0064	97	70-130			
Lead	0.055	0.00050	mg/L	0.05000	0.0031	103	70-130			
Silver	0.045	0.00050	mg/L	0.05000	ND	91	70-130			
Zinc	0.14	0.040	mg/L	0.1000	0.030	114	70-130			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21A0553
Date Received: 01/25/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 2101262 - SM4500-H+ B										
Duplicate (2101262-DUP1)		Source: 21A0553-01			Prepared & Analyzed: 01/25/2021					
pH (pH Units)	7.3		-		7.2			0.6	200	H5
Temperature (°C)	20		-		20			0	200	H5
Batch 2101270 - SM2510 B										
LCS (2101270-BS1)		Prepared & Analyzed: 01/26/2021								
Conductivity	150	0.10	µmhos/cm	141.2		105	0-200			
LCS Dup (2101270-BSD1)		Prepared & Analyzed: 01/26/2021								
Conductivity	150	0.10	µmhos/cm	141.2		106	0-200	0.7	200	
Duplicate (2101270-DUP1)		Source: 21A0398-01			Prepared & Analyzed: 01/26/2021					
Conductivity	630	0.10	µmhos/cm		630			0.2	10	
Duplicate (2101270-DUP2)		Source: 21A0479-01			Prepared & Analyzed: 01/26/2021					
Conductivity	8.0	0.10	µmhos/cm		8.0			0	10	
Batch 2101291 - SM4500-CN BE										
Blank (2101291-BLK1)		Prepared: 01/26/2021 Analyzed: 01/27/2021								
Cyanide	ND	0.10	mg/L							
LCS (2101291-BS1)		Prepared: 01/26/2021 Analyzed: 01/27/2021								
Cyanide	2.0	0.10	mg/L	2.000		102	85-115			
LCS Dup (2101291-BSD1)		Prepared: 01/26/2021 Analyzed: 01/27/2021								
Cyanide	2.0	0.10	mg/L	2.000		100	85-115	2	15	
Matrix Spike (2101291-MS1)		Source: 21A0423-01			Prepared: 01/26/2021 Analyzed: 01/27/2021					
Cyanide	2.0	0.10	mg/L	2.000	ND	100	80-120			
Matrix Spike Dup (2101291-MSD1)		Source: 21A0423-01			Prepared: 01/26/2021 Analyzed: 01/27/2021					
Cyanide	2.1	0.10	mg/L	2.000	ND	106	80-120	6	15	
Batch 2102064 - SM4500-CN BE										
Blank (2102064-BLK1)		Prepared: 02/03/2021 Analyzed: 02/04/2021								
Cyanide	ND	0.10	mg/L							
LCS (2102064-BS1)		Prepared: 02/03/2021 Analyzed: 02/04/2021								
Cyanide	2.3	0.10	mg/L	2.000		115	85-115			
LCS Dup (2102064-BSD1)		Prepared: 02/03/2021 Analyzed: 02/04/2021								
Cyanide	2.3	0.10	mg/L	2.000		114	85-115	0.8	15	
Matrix Spike (2102064-MS1)		Source: 21A0623-01			Prepared: 02/03/2021 Analyzed: 02/04/2021					
Cyanide	1.9	0.10	mg/L	2.000	ND	97	80-120			
Matrix Spike Dup (2102064-MSD1)		Source: 21A0623-01			Prepared: 02/03/2021 Analyzed: 02/04/2021					
Cyanide	2.2	0.10	mg/L	2.000	ND	112	80-120	14	15	

Outfall 1 (Trench) Stormwater

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Arsenic	X	X	
Cadmium	X	X	
Copper	X	X	
Lead	X	X	
Silver	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		
Other Parameters			
Free Cyanide	X	X	Free
pH			X
Specific Conductance			X

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance

BOTTLE LIST		
Volume	Preservative	Parameter
250ml	HNO3	Metals
250ml	Non-Preserved	Hardness/pH/Conductivity
500ml	NaOH	Free Cyanide

Outfall 2 (Trench)

LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper	X	X	
Lead	X	X	
Silver	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		
Other Parameters			
Free Cyanide	X	X	Free
pH			X
Specific Conductance			X

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance

BOTTLE LIST		
Volume	Preservative	Parameter
250ml	HNO3	Metals
250ml	Non-Preserved	Hardness/pH/Conductivity
500ml	NaOH	Free Cyanide



August 24, 2021

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

TEL (802) 235-5563
FAX

Work Order No.: 21H0353

RE: Storm Water

Dear Sheena Leon,

Turner Laboratories, Inc. received 1 sample(s) on 08/11/2021 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: Storm Water
Work Order: 21H0353
Date Received: 08/11/2021

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21H0353-01	Outfall 3 - 08092021	Ground Water	08/09/2021 0814

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0353
Date Received: 08/11/2021

Case Narrative

- 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.
 - H3 Sample was received and/or analysis requested past holding time.
 - H5 This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
 - 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: Storm Water
Work Order: 21H0353
Lab Sample ID: 21H0353-01

Client Sample ID: Outfall 3 - 08092021
Collection Date/Time: 08/09/2021 0814
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	61				mg/L	1	08/16/2021 1235	08/17/2021 1015	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.0039		0.00050		mg/L	1	08/19/2021 0955	08/20/2021 1608	CR
Lead	0.00062		0.00050		mg/L	1	08/19/2021 0955	08/20/2021 1608	CR
Silver	0.0000820	0.000021	0.00050	E4	mg/L	1	08/19/2021 0955	08/20/2021 1608	CR
Zinc	0.015	0.0023	0.040	E4	mg/L	1	08/19/2021 0955	08/20/2021 1608	CR
Turbidity-E180.1									
Turbidity	130		10	H3	NTU	100	08/12/2021 1050	08/12/2021 1245	EJ
ICP Total Metals-E200.7 (4.4)									
Calcium	14		4.0		mg/L	1	08/16/2021 1235	08/17/2021 1014	MH
Magnesium	6.2		3.0		mg/L	1	08/16/2021 1235	08/17/2021 1015	MH
ICP/MS Total Metals-E200.8 (5.4)									
Copper	0.019		0.00050		mg/L	1	08/12/2021 0940	08/13/2021 1118	CR
Lead	0.021		0.00050		mg/L	1	08/12/2021 0940	08/13/2021 1118	CR
Silver	0.00042	0.000021	0.00050	E4	mg/L	1	08/12/2021 0940	08/13/2021 1118	CR
Zinc	0.15		0.040		mg/L	1	08/12/2021 0940	08/13/2021 1118	CR
Specific Conductance-SM2510 B									
Conductivity	110		0.10		µmhos/cm	1	08/13/2021 1505	08/13/2021 1540	CR
Cyanide-SM4500-CN BE									
Cyanide	ND	0.067	0.10	E8	mg/L	1	08/23/2021 0800	08/24/2021 1630	JG
pH-SM4500-H+ B									
pH (pH Units)	7.1			H5	-	1	08/13/2021 1245	08/13/2021 1450	EJ
Temperature (°C)	22			H5	-	1	08/13/2021 1245	08/13/2021 1450	EJ

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0353
Lab Sample ID: 21H0353-01

Client Sample ID: Outfall 3 - 08092021
Collection Date/Time: 08/09/2021 0814
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
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Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0353
Date Received: 08/11/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 2108196 - E200.8 (5.4)										
Blank (2108196-BLK1) Prepared: 08/12/2021 Analyzed: 08/13/2021										
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Silver	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2108196-BS1) Prepared: 08/12/2021 Analyzed: 08/13/2021										
Copper	0.051	0.00050	mg/L	0.05000		102	85-115			
Lead	0.051	0.00050	mg/L	0.05000		102	85-115			
Silver	0.052	0.00050	mg/L	0.05000		103	85-115			
Zinc	0.11	0.040	mg/L	0.1000		114	85-115			
LCS Dup (2108196-BSD1) Prepared: 08/12/2021 Analyzed: 08/13/2021										
Copper	0.052	0.00050	mg/L	0.05000		103	85-115	0.9	20	
Lead	0.051	0.00050	mg/L	0.05000		102	85-115	0.4	20	
Silver	0.050	0.00050	mg/L	0.05000		101	85-115	2	20	
Zinc	0.11	0.040	mg/L	0.1000		113	85-115	1	20	
Matrix Spike (2108196-MS1) Source: 21H0034-01 Prepared: 08/12/2021 Analyzed: 08/13/2021										
Copper	0.047	0.00050	mg/L	0.05000	0.0058	82	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.00045	96	70-130			
Silver	0.042	0.00050	mg/L	0.05000	ND	84	70-130			
Zinc	0.11	0.040	mg/L	0.1000	ND	108	70-130			
Matrix Spike (2108196-MS2) Source: 21H0151-01 Prepared: 08/12/2021 Analyzed: 08/13/2021										
Copper	0.044	0.00050	mg/L	0.05000	0.0023	83	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00028	99	70-130			
Silver	0.037	0.00050	mg/L	0.05000	ND	74	70-130			
Zinc	0.10	0.040	mg/L	0.1000	ND	100	70-130			
Batch 2108224 - E200.7 (4.4)										
Blank (2108224-BLK1) Prepared: 08/16/2021 Analyzed: 08/17/2021										
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (2108224-BS1) Prepared: 08/16/2021 Analyzed: 08/17/2021										
Calcium	10	4.0	mg/L	10.00		100	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
LCS Dup (2108224-BSD1) Prepared: 08/16/2021 Analyzed: 08/17/2021										
Calcium	10	4.0	mg/L	10.00		103	85-115	2	20	
Magnesium	10	3.0	mg/L	10.00		103	85-115	1	20	
Matrix Spike (2108224-MS1) Source: 21H0298-01 Prepared: 08/16/2021 Analyzed: 08/17/2021										
Calcium	56	4.0	mg/L	10.00	46	94	70-130			
Magnesium	12	3.0	mg/L	10.00	2.2	96	70-130			
Matrix Spike (2108224-MS2) Source: 21H0237-02 Prepared: 08/16/2021 Analyzed: 08/17/2021										
Calcium	190	4.0	mg/L	10.00	190	32	70-130			M3
Magnesium	46	3.0	mg/L	10.00	37	84	70-130			
Batch 2108264 - E 200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0353
Date Received: 08/11/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Blank (2108264-BLK1)				Prepared: 08/19/2021 Analyzed: 08/20/2021						
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Silver	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2108264-BS1)				Prepared: 08/19/2021 Analyzed: 08/20/2021						
Copper	0.046	0.00050	mg/L	0.05000		93	85-115			
Lead	0.046	0.00050	mg/L	0.05000		92	85-115			
Silver	0.043	0.00050	mg/L	0.05000		87	85-115			
Zinc	0.099	0.040	mg/L	0.1000		99	85-115			
LCS Dup (2108264-BSD1)				Prepared: 08/19/2021 Analyzed: 08/20/2021						
Copper	0.046	0.00050	mg/L	0.05000		92	85-115	1	20	
Lead	0.046	0.00050	mg/L	0.05000		91	85-115	0.8	20	
Silver	0.043	0.00050	mg/L	0.05000		86	85-115	1	20	
Zinc	0.098	0.040	mg/L	0.1000		98	85-115	0.6	20	
Matrix Spike (2108264-MS1)				Source: 21H0424-01		Prepared: 08/19/2021 Analyzed: 08/20/2021				
Copper	29	0.050	mg/L	0.05000	31	NR	70-130			M2
Lead	0.046	0.00050	mg/L	0.05000	0.00085	90	70-130			
Silver	0.033	0.00050	mg/L	0.05000	0.00014	66	70-130			M2
Zinc	2.5	4.0	mg/L	0.1000	2.5	NR	70-130			M2

Client: Arizona Minerals Inc.
 Project: Storm Water
 Work Order: 21H0353
 Date Received: 08/11/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108183 - E180.1										
Duplicate (2108183-DUP1)		Source: 21H0242-01			Prepared & Analyzed: 08/12/2021					
Turbidity	0.50	0.10	NTU		0.50			0	10	
Duplicate (2108183-DUP2)		Source: 21H0370-01			Prepared & Analyzed: 08/12/2021					
Turbidity	0.15	0.10	NTU		0.15			0	10	
Batch 2108204 - SM4500-H+ B										
Duplicate (2108204-DUP1)		Source: 21H0290-02			Prepared & Analyzed: 08/13/2021					
pH (pH Units)	7.7		-		7.6			0.9	200	H5
Temperature (°C)	23		-		22			2	200	H5
Duplicate (2108204-DUP2)		Source: 21H0330-01			Prepared & Analyzed: 08/13/2021					
pH (pH Units)	8.0		-		8.0			0.1	200	H5
Temperature (°C)	22		-		22			2	200	H5
Batch 2108206 - SM2510 B										
LCS (2108206-BS1)					Prepared & Analyzed: 08/13/2021					
Conductivity	150	0.10	µmhos/cm	141.2		103	0-200			
LCS Dup (2108206-BSD1)					Prepared & Analyzed: 08/13/2021					
Conductivity	150	0.10	µmhos/cm	141.2		103	0-200	0	200	
Duplicate (2108206-DUP1)		Source: 21H0020-03			Prepared & Analyzed: 08/13/2021					
Conductivity	1000	0.10	µmhos/cm		1000			1	10	
Batch 2108325 - SM4500-CN BE										
Blank (2108325-BLK1)					Prepared: 08/23/2021 Analyzed: 08/24/2021					
Cyanide	ND	0.10	mg/L							
LCS (2108325-BS1)					Prepared: 08/23/2021 Analyzed: 08/24/2021					
Cyanide	2.0	0.10	mg/L	2.000		101	85-115			
LCS Dup (2108325-BSD1)					Prepared: 08/23/2021 Analyzed: 08/24/2021					
Cyanide	2.0	0.10	mg/L	2.000		99	85-115	2	15	
Matrix Spike (2108325-MS1)		Source: 21H0244-02			Prepared: 08/23/2021 Analyzed: 08/24/2021					
Cyanide	1.7	0.10	mg/L	2.000	ND	85	80-120			
Matrix Spike Dup (2108325-MSD1)		Source: 21H0244-02			Prepared: 08/23/2021 Analyzed: 08/24/2021					
Cyanide	1.9	0.10	mg/L	2.000	ND	94	80-120	10	15	

Outfall 3 (Alta) Stormwater			
LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper	X	X	
Lead	X	X	
Silver	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		
Other Parameters			
Free Cyanide	X	X	
pH			X
Specific Conductance			X

FIELD MEASUREMENTS	
pH	
Specific conductance	
Temperature	
Turbidity	
Flow	
Appearance	

BOTTLE LIST		
Volume	Preservative	Parameter
250ml	HNO3	Metals
250ml	Non-Preserved	Hardness/pH/Conductivity
500ml	NaOH	Free Cyanide



August 24, 2021

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

TEL (802) 235-5563
FAX

Work Order No.: 21H0414
Order Name: Hermosa

RE: Storm Water

Dear Sheena Leon,

Turner Laboratories, Inc. received 1 sample(s) on 08/13/2021 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: Storm Water
Work Order: 21H0414
Date Received: 08/13/2021

Order: Hermosa

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21H0414-01	Outfall1-08122021	Ground Water	08/12/2021 0821

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0414
Date Received: 08/13/2021

Case Narrative

- 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.
 - H5 This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
 - M2 Matrix spike recovery was low; the associated LCS/LCSD 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: Storm Water
Work Order: 21H0414
Lab Sample ID: 21H0414-01

Client Sample ID: Outfall1-08122021
Collection Date/Time: 08/12/2021 0821
Matrix: Ground Water
Order Name: Hermosa

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	300				mg/L	1	08/19/2021 0955	08/19/2021 1303	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Arsenic	0.0024		0.00050		mg/L	1	08/19/2021 0955	08/20/2021 1611	CR
Cadmium	0.0000890	0.000050	0.00025	E4	mg/L	1	08/19/2021 0955	08/20/2021 1611	CR
Copper	0.0036		0.00050		mg/L	1	08/19/2021 0955	08/20/2021 1611	CR
Lead	0.00015	0.000057	0.00050	E4	mg/L	1	08/19/2021 0955	08/20/2021 1611	CR
Silver	0.0000540	0.000021	0.00050	E4	mg/L	1	08/19/2021 0955	08/20/2021 1611	CR
Zinc	0.015	0.0023	0.040	E4	mg/L	1	08/19/2021 0955	08/20/2021 1611	CR
Turbidity-E180.1									
Turbidity	4200		20		NTU	200	08/13/2021 1657	08/13/2021 1730	CR
ICP Total Metals-E200.7 (4.4)									
Calcium	74		4.0		mg/L	1	08/19/2021 0955	08/19/2021 1303	MH
Magnesium	27		3.0		mg/L	1	08/19/2021 0955	08/19/2021 1303	MH
ICP/MS Total Metals-E200.8 (5.4)									
Arsenic	0.033		0.00050		mg/L	1	08/17/2021 1220	08/20/2021 1112	CR
Cadmium	0.0030		0.00025		mg/L	1	08/17/2021 1220	08/20/2021 1112	CR
Copper	0.085		0.00050		mg/L	1	08/17/2021 1220	08/20/2021 1112	CR
Lead	0.21		0.00050		mg/L	1	08/17/2021 1220	08/20/2021 1112	CR
Silver	0.0012		0.00050		mg/L	1	08/17/2021 1220	08/20/2021 1112	CR
Zinc	0.97		0.20		mg/L	5	08/17/2021 1220	08/20/2021 1200	CR
Specific Conductance-SM2510 B									
Conductivity	510		0.10		µmhos/cm	1	08/19/2021 1405	08/19/2021 1445	CWB
Cyanide-SM4500-CN BE									
Cyanide	ND	0.067	0.10	E8	mg/L	1	08/23/2021 0800	08/24/2021 1630	JG

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0414
Lab Sample ID: 21H0414-01

Client Sample ID: Outfall1-08122021
Collection Date/Time: 08/12/2021 0821
Matrix: Ground Water
Order Name: Hermosa

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
pH-SW9045D									
pH (pH Units)	7.8			H5	-	1	08/16/2021 1455	08/16/2021 1504	CWB
Temperature (°C)	24			H5	-	1	08/16/2021 1455	08/16/2021 1504	CWB

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0414
Date Received: 08/13/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108244 - E200.8 (5.4)										
Blank (2108244-BLK1) Prepared: 08/17/2021 Analyzed: 08/20/2021										
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Silver	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2108244-BS1) Prepared: 08/17/2021 Analyzed: 08/20/2021										
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		99	85-115			
Copper	0.049	0.00050	mg/L	0.05000		98	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Silver	0.048	0.00050	mg/L	0.05000		97	85-115			
Zinc	0.11	0.040	mg/L	0.1000		110	85-115			
LCS Dup (2108244-BSD1) Prepared: 08/17/2021 Analyzed: 08/20/2021										
Arsenic	0.049	0.00050	mg/L	0.05000		97	85-115	3	20	
Cadmium	0.049	0.00025	mg/L	0.05000		97	85-115	2	20	
Copper	0.047	0.00050	mg/L	0.05000		94	85-115	4	20	
Lead	0.046	0.00050	mg/L	0.05000		93	85-115	3	20	
Silver	0.048	0.00050	mg/L	0.05000		95	85-115	2	20	
Zinc	0.11	0.040	mg/L	0.1000		105	85-115	4	20	
Matrix Spike (2108244-MS1) Source: 21H0447-06 Prepared: 08/17/2021 Analyzed: 08/20/2021										
Arsenic	0.051	0.00050	mg/L	0.05000	0.0022	98	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.00057	95	70-130			
Copper	0.37	0.00050	mg/L	0.05000	0.35	46	70-130			M2
Lead	0.058	0.00050	mg/L	0.05000	0.010	96	70-130			
Silver	0.044	0.00050	mg/L	0.05000	0.00048	87	70-130			
Zinc	0.18	0.040	mg/L	0.1000	0.074	108	70-130			
Matrix Spike (2108244-MS2) Source: 21H0447-07 Prepared: 08/17/2021 Analyzed: 08/20/2021										
Arsenic	0.053	0.00050	mg/L	0.05000	0.0027	100	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.00021	95	70-130			
Copper	0.092	0.00050	mg/L	0.05000	0.050	85	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.0066	96	70-130			
Silver	0.043	0.00050	mg/L	0.05000	0.000089	86	70-130			
Zinc	0.15	0.040	mg/L	0.1000	0.046	108	70-130			
Batch 2108263 - E200.7 (4.4)										
Blank (2108263-BLK1) Prepared: 08/18/2021 Analyzed: 08/19/2021										
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (2108263-BS1) Prepared: 08/18/2021 Analyzed: 08/19/2021										
Calcium	10	4.0	mg/L	10.00		102	85-115			
Magnesium	9.9	3.0	mg/L	10.00		99	85-115			

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0414
Date Received: 08/13/2021

QC Summary

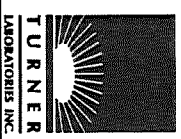
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108263 - E200.7 (4.4)										
LCS Dup (2108263-BSD1)				Prepared: 08/18/2021 Analyzed: 08/19/2021						
Calcium	10	4.0	mg/L	10.00		102	85-115	0.1	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	0.1	20	
Matrix Spike (2108263-MS1)				Source: 21H0253-01		Prepared: 08/18/2021 Analyzed: 08/19/2021				
Calcium	86	4.0	mg/L	10.00	78	76	70-130			
Magnesium	18	3.0	mg/L	10.00	8.6	93	70-130			
Matrix Spike (2108263-MS2)				Source: 21H0460-01		Prepared: 08/18/2021 Analyzed: 08/19/2021				
Calcium	68	4.0	mg/L	10.00	60	81	70-130			
Magnesium	12	3.0	mg/L	10.00	2.3	92	70-130			
Batch 2108264 - E 200.8 (5.4)										
Blank (2108264-BLK1)				Prepared: 08/19/2021 Analyzed: 08/20/2021						
Arsenic	ND	0.00050	mg/L							
Cadmium	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Silver	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2108264-BS1)				Prepared: 08/19/2021 Analyzed: 08/20/2021						
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115			
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115			
Copper	0.046	0.00050	mg/L	0.05000		93	85-115			
Lead	0.046	0.00050	mg/L	0.05000		92	85-115			
Silver	0.043	0.00050	mg/L	0.05000		87	85-115			
Zinc	0.099	0.040	mg/L	0.1000		99	85-115			
LCS Dup (2108264-BSD1)				Prepared: 08/19/2021 Analyzed: 08/20/2021						
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115	0.5	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	1	20	
Copper	0.046	0.00050	mg/L	0.05000		92	85-115	1	20	
Lead	0.046	0.00050	mg/L	0.05000		91	85-115	0.8	20	
Silver	0.043	0.00050	mg/L	0.05000		86	85-115	1	20	
Zinc	0.098	0.040	mg/L	0.1000		98	85-115	0.6	20	
Matrix Spike (2108264-MS1)				Source: 21H0424-01		Prepared: 08/19/2021 Analyzed: 08/20/2021				
Arsenic	0.070	0.00050	mg/L	0.05000	0.0053	130	70-130			
Cadmium	0.067	0.00025	mg/L	0.05000	0.019	97	70-130			
Copper	29	0.050	mg/L	0.05000	31	NR	70-130			M2
Lead	0.046	0.00050	mg/L	0.05000	0.00085	90	70-130			
Silver	0.033	0.00050	mg/L	0.05000	0.00014	66	70-130			M2
Zinc	2.5	4.0	mg/L	0.1000	2.5	NR	70-130			M2

Client: Arizona Minerals Inc.
Project: Storm Water
Work Order: 21H0414
Date Received: 08/13/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Qual
Batch 2108213 - E180.1										
Duplicate (2108213-DUP1) Source: 21H0420-02 Prepared & Analyzed: 08/13/2021										
Turbidity	2000	10	NTU		2000			0	10	
Batch 2108245 - SW9045D										
Duplicate (2108245-DUP1) Source: 21H0423-01 Prepared & Analyzed: 08/16/2021										
pH (pH Units)	8.1		-		8.1			0.2	200	H5
Temperature (°C)	24		-		24			0	200	H5
Batch 2108273 - SM2510 B										
LCS (2108273-BS1) Prepared & Analyzed: 08/19/2021										
Conductivity	150	0.10	µmhos/cm	141.2		103	0-200			
LCS Dup (2108273-BSD1) Prepared & Analyzed: 08/19/2021										
Conductivity	150	0.10	µmhos/cm	141.2		106	0-200	3	200	
Duplicate (2108273-DUP1) Source: 21H0424-01 Prepared & Analyzed: 08/19/2021										
Conductivity	6700	5.0	µmhos/cm		6400			5	10	
Duplicate (2108273-DUP2) Source: 21H0458-02 Prepared & Analyzed: 08/19/2021										
Conductivity	880	0.10	µmhos/cm		910			3	10	
Batch 2108325 - SM4500-CN BE										
Blank (2108325-BLK1) Prepared: 08/23/2021 Analyzed: 08/24/2021										
Cyanide	ND	0.10	mg/L							
LCS (2108325-BS1) Prepared: 08/23/2021 Analyzed: 08/24/2021										
Cyanide	2.0	0.10	mg/L	2.000		101	85-115			
LCS Dup (2108325-BSD1) Prepared: 08/23/2021 Analyzed: 08/24/2021										
Cyanide	2.0	0.10	mg/L	2.000		99	85-115	2	15	
Matrix Spike (2108325-MS1) Source: 21H0244-02 Prepared: 08/23/2021 Analyzed: 08/24/2021										
Cyanide	1.7	0.10	mg/L	2.000	ND	85	80-120			
Matrix Spike Dup (2108325-MSD1) Source: 21H0244-02 Prepared: 08/23/2021 Analyzed: 08/24/2021										
Cyanide	1.9	0.10	mg/L	2.000	ND	94	80-120	10	15	

2445 N. Coyote Drive, Suite 104
 Tucson, Arizona 85745
 (520) 882-5880
 Fax: (520) 882-9788
 www.turnerlabs.com



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2180214 DATE 8.12.21 PAGE 1 OF 0
 PROJECT NAME Hermosa # 812-21
 CONTACT NAME Sheena Leon & Kara Haas
 COMPANY NAME South32
 ADDRESS 2210 E Ft Lowell Rd
 CITY Tucson STATE AZ ZIP CODE 85719
 PHONE (505) 947-1738 FAX 8.12.21
 SAMPLER'S SIGNATURE [Signature]

DATE	TIME	LAB I.D.	MATRIX*	SAMPLE
<u>Outfall 1 - 08/12/2021</u>	<u>8:21</u>			<u>GW</u>

1. RELINQUISHED BY:	2. RECEIVED BY:	3. RELINQUISHED BY:	4. RECEIVED BY:
Signature <u>[Signature]</u> Printed Name <u>Hermosa</u> Firm <u>Hermosa</u> Date/Time <u>8.12.21</u>	Signature <u>[Signature]</u> Printed Name <u>[Signature]</u> Firm <u>[Signature]</u> Date/Time <u>8/12/21</u>	Signature <u>[Signature]</u> Printed Name <u>[Signature]</u> Firm <u>[Signature]</u> Date/Time <u>8/13/21</u>	Signature <u>[Signature]</u> Printed Name <u>[Signature]</u> Firm <u>TURNER LABORATORIES, INC.</u> Date/Time <u>8/13/21</u>

NUMBER OF CONTAINERS	TURNAROUND REQUIREMENTS:	REPORT REQUIREMENTS:	INVOICE INFORMATION:	SAMPLE RECEIPT:
<u>3</u>	*See attachment Standard (approx. 10 days) Next day 2 Day 5 Day* <input checked="" type="checkbox"/> Email Preliminary Results	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	Account <u>Y</u> <u>N</u> P.O. # <u>812-21</u> Bill to: <u>[Signature]</u>	Total Containers <u>3</u> Temperature <u>4.7</u> <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice

*** LEGEND**
 DW = DRINKING WATER
 GW = GROUNDWATER
 SD = SOLID
 SG = SLUDGE
 SL = SOIL

SPECIAL INSTRUCTIONS/COMMENTS:
 Compliance Analysis: Yes No
 ADEQ Forms: Yes No
 Mail ADEQ Forms: Yes No
 Custody Seals: Yes No
 Container Intact: Yes No
 COC/Labels Agree: Yes No
 Preservation Confirmation: Yes No
 Appropriate Head Space: Yes No
 Received Within Hold Time: Yes No

Outfall 1 (Trench) Stormwater			
LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Arsenic	X	X	
Cadmium	X	X	
Copper	X	X	
Lead	X	X	
Silver	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		
Other Parameters			
Free Cyanide	X	X	Free
pH			X
Specific Conductance			X

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance

BOTTLE LIST		
Volume	Preservative	Parameter
250ml	HNO3	Metals
250ml	Non-Preserved	Hardness/pH/Conductivity
500ml	NaOH	Free Cyanide



September 16, 2021

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

TEL (802) 235-5563
FAX

Work Order No.: 21I0086
Order Name: Groundwater

RE: Groundwater

Dear Sheena Leon,

Turner Laboratories, Inc. received 1 sample(s) on 09/02/2021 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: Groundwater
Work Order: 21I0086
Date Received: 09/02/2021

Order: Groundwater

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21I0086-01	Outfall 2 - 09012021	Ground Water	09/01/2021 1100

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0086
Date Received: 09/02/2021

Case Narrative

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

H1 Sample analysis was performed past holding time.

H5 This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.

M1 Matrix spike recovery was high; the associated LCS/LCSD 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

Turner Laboratories, Inc.

Date: 09/16/2021

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0086
Lab Sample ID: 21I0086-01

Client Sample ID: Outfall 2 - 09012021
Collection Date/Time: 09/01/2021 1100
Matrix: Ground Water
Order Name: Groundwater

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	890				mg/L	1	09/06/2021 0735	09/07/2021 1359	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Copper	0.20		0.00050	M1	mg/L	1	09/10/2021 1135	09/10/2021 1158	CR
Lead	0.0000850	0.000057	0.00050	E4, M1	mg/L	1	09/10/2021 1135	09/10/2021 1158	CR
Silver	0.0000480	0.000021	0.00050	E4	mg/L	1	09/10/2021 1135	09/10/2021 1158	CR
Zinc	0.49		0.040	M1	mg/L	1	09/10/2021 1135	09/10/2021 1158	CR
Turbidity-E180.1									
Turbidity	13		0.10	H1	NTU	1	09/08/2021 1421	09/08/2021 1510	CWB
ICP Total Metals-E200.7 (4.4)									
Calcium	200		4.0		mg/L	1	09/06/2021 0735	09/07/2021 1359	MH
Magnesium	96		3.0		mg/L	1	09/06/2021 0735	09/07/2021 1359	MH
ICP/MS Total Metals-E200.8 (5.4)									
Copper	0.033		0.00050		mg/L	1	09/03/2021 1200	09/07/2021 1139	CR
Lead	0.019		0.00050		mg/L	1	09/03/2021 1200	09/07/2021 1139	CR
Silver	0.00016	0.000021	0.00050	E4	mg/L	1	09/03/2021 1200	09/08/2021 1157	CR
Zinc	0.55		0.040		mg/L	1	09/03/2021 1200	09/07/2021 1139	CR
Specific Conductance-SM2510 B									
Conductivity	270		0.10		µmhos/cm	1	09/13/2021 1600	09/13/2021 1630	CWB
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	09/14/2021 0800	09/15/2021 1130	JG
pH-SW9045D									
pH (pH Units)	7.0			H5	-	1	09/07/2021 1609	09/07/2021 1703	CWB

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0086
Lab Sample ID: 21I0086-01

Client Sample ID: Outfall 2 - 09012021
Collection Date/Time: 09/01/2021 1100
Matrix: Ground Water
Order Name: Groundwater

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Temperature (°C)	22			H5		- 1	09/07/2021 1609	09/07/2021 1703	CWB

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0086
Date Received: 09/02/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 2109054 - E200.7 (4.4)										
Blank (2109054-BLK1) Prepared: 09/06/2021 Analyzed: 09/07/2021										
Calcium	ND	4.0	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (2109054-BS1) Prepared: 09/06/2021 Analyzed: 09/07/2021										
Calcium	11	4.0	mg/L	10.00		105	85-115			
Magnesium	10	3.0	mg/L	10.00		103	85-115			
LCS Dup (2109054-BSD1) Prepared: 09/06/2021 Analyzed: 09/07/2021										
Calcium	11	4.0	mg/L	10.00		110	85-115	5	20	
Magnesium	11	3.0	mg/L	10.00		108	85-115	4	20	
Matrix Spike (2109054-MS1) Source: 2110015-01 Prepared: 09/06/2021 Analyzed: 09/07/2021										
Calcium	91	4.0	mg/L	10.00	83	90	70-130			
Magnesium	24	3.0	mg/L	10.00	14	97	70-130			
Matrix Spike (2109054-MS2) Source: 2110015-02 Prepared: 09/06/2021 Analyzed: 09/07/2021										
Calcium	92	4.0	mg/L	10.00	85	71	70-130			
Magnesium	24	3.0	mg/L	10.00	14	95	70-130			
Batch 2109065 - E200.8 (5.4)										
Blank (2109065-BLK1) Prepared: 09/03/2021 Analyzed: 09/07/2021										
Copper	ND	0.00050	mg/L							
Lead	0.000070	0.00050	mg/L							
Silver	0.000049	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2109065-BS1) Prepared: 09/03/2021 Analyzed: 09/07/2021										
Copper	0.050	0.00050	mg/L	0.05000		101	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Silver	0.046	0.00050	mg/L	0.05000		93	85-115			
Zinc	0.11	0.040	mg/L	0.1000		106	85-115			
LCS Dup (2109065-BSD1) Prepared: 09/03/2021 Analyzed: 09/07/2021										
Copper	0.048	0.00050	mg/L	0.05000		96	85-115	4	20	
Lead	0.050	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Silver	0.047	0.00050	mg/L	0.05000		94	85-115	0.9	20	
Zinc	0.10	0.040	mg/L	0.1000		101	85-115	5	20	
Matrix Spike (2109065-MS1) Source: 2110086-01 Prepared: 09/03/2021 Analyzed: 09/07/2021										
Copper	0.076	0.00050	mg/L	0.05000	0.033	84	70-130			
Lead	0.071	0.00050	mg/L	0.05000	0.019	105	70-130			
Silver	0.041	0.00050	mg/L	0.05000	0.00016	81	70-130			
Zinc	0.65	0.040	mg/L	0.1000	0.55	102	70-130			
Matrix Spike (2109065-MS2) Source: 2110087-01 Prepared: 09/03/2021 Analyzed: 09/07/2021										
Copper	0.047	0.00050	mg/L	0.05000	0.0080	78	70-130			
Lead	0.058	0.00050	mg/L	0.05000	0.0075	101	70-130			
Silver	0.042	0.025	mg/L	0.05000	ND	85	70-130			
Zinc	3.7	2.0	mg/L	0.1000	3.6	99	70-130			

Batch 2109130 - E 200.8 (5.4)

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0086
Date Received: 09/02/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Blank (2109130-BLK1)				Prepared & Analyzed: 09/10/2021						
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Silver	0.000026	0.00050	mg/L							
Zinc	0.022	0.040	mg/L							
LCS (2109130-BS1)				Prepared & Analyzed: 09/10/2021						
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.052	0.00050	mg/L	0.05000		103	85-115			
Silver	0.048	0.00050	mg/L	0.05000		95	85-115			
Zinc	0.11	0.040	mg/L	0.1000		110	85-115			
LCS Dup (2109130-BSD1)				Prepared & Analyzed: 09/10/2021						
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	3	20	
Lead	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Silver	0.047	0.00050	mg/L	0.05000		95	85-115	0.08	20	
Zinc	0.11	0.040	mg/L	0.1000		108	85-115	2	20	
Matrix Spike (2109130-MS1)				Source: 21I0086-01		Prepared & Analyzed: 09/10/2021				
Copper	0.27	0.00050	mg/L	0.05000	0.20	133	70-130			M1
Lead	0.070	0.00050	mg/L	0.05000	0.000085	139	70-130			M1
Silver	0.044	0.00050	mg/L	0.05000	0.000048	88	70-130			
Zinc	0.62	0.040	mg/L	0.1000	0.49	130	70-130			M1

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0086
Date Received: 09/02/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Qual
Batch 2109094 - SW9045D										
Duplicate (2109094-DUP1)		Source: 21H0758-03			Prepared & Analyzed: 09/07/2021					
pH (pH Units)	6.7		-		6.7			0.1	200	H5
Temperature (°C)	22		-		22			0.5	200	H5
Duplicate (2109094-DUP2)		Source: 21H0806-04			Prepared & Analyzed: 09/07/2021					
pH (pH Units)	8.0		-		7.9			0.4	200	H5
Temperature (°C)	21		-		21			0	200	H5
Batch 2109096 - E180.1										
Duplicate (2109096-DUP1)		Source: 2110012-01			Prepared & Analyzed: 09/08/2021					
Turbidity	1.2	0.10	NTU		1.3			8	10	
Duplicate (2109096-DUP2)		Source: 2110210-01			Prepared & Analyzed: 09/08/2021					
Turbidity	1.3	0.10	NTU		1.2			8	10	
Batch 2109153 - SM2510 B										
LCS (2109153-BS1)					Prepared & Analyzed: 09/13/2021					
Conductivity	150	0.10	µmhos/cm	141.2		108	0-200			
LCS Dup (2109153-BSD1)					Prepared & Analyzed: 09/13/2021					
Conductivity	150	0.10	µmhos/cm	141.2		107	0-200	1	200	
Duplicate (2109153-DUP1)		Source: 2110262-04			Prepared & Analyzed: 09/13/2021					
Conductivity	180	0.10	µmhos/cm		190			7	10	
Duplicate (2109153-DUP2)		Source: 2110231-01			Prepared & Analyzed: 09/13/2021					
Conductivity	550	0.10	µmhos/cm		540			2	10	
Batch 2109198 - SM4500-CN BE										
Blank (2109198-BLK1)					Prepared: 09/14/2021 Analyzed: 09/15/2021					
Cyanide	ND	0.10	mg/L							
LCS (2109198-BS1)					Prepared: 09/14/2021 Analyzed: 09/15/2021					
Cyanide	1.8	0.10	mg/L	2.000		90	85-115			
LCS Dup (2109198-BSD1)					Prepared: 09/14/2021 Analyzed: 09/15/2021					
Cyanide	1.8	0.10	mg/L	2.000		92	85-115	2	15	
Matrix Spike (2109198-MS1)		Source: 2110001-02			Prepared: 09/14/2021 Analyzed: 09/15/2021					
Cyanide	1.6	0.10	mg/L	2.000	ND	81	80-120			
Matrix Spike Dup (2109198-MSD1)		Source: 2110001-02			Prepared: 09/14/2021 Analyzed: 09/15/2021					
Cyanide	1.8	0.10	mg/L	2.000	ND	92	80-120	13	15	



2445 N. Coyote Drive, Suite 104
 Tucson, Arizona 85745
 (520) 882-5880
 Fax: (520) 882-9788
 www.turnerlabs.com

PROJECT NAME Hurms Co # 9-1-21

CONTACT NAME Sheena Leon & Kara Haas

COMPANY NAME South32

ADDRESS 2210 E Ft Lowell Rd

CITY Tucson STATE AZ ZIP CODE 85719

PHONE _____ FAX _____

SAMPLER'S SIGNATURE _____

SAMPLE I.D. _____ DATE _____ TIME _____ LAB I.D. _____

Duffell 2 - 09012021 9-1-21 11:00am water

JK 9-1-21

1. RELINQUISHED BY:

Signature Jaime Lopez
 Printed Name Jaime Lopez

Firm _____

Date/Time _____

3. RELINQUISHED BY:

Signature Steven Briggs
 Printed Name Steven Briggs

Firm _____

Date/Time 9/2/21

2. RECEIVED BY:

Signature Colleen Briggs
 Printed Name Colleen Briggs

Firm _____

Date/Time 9/2/21

4. RECEIVED BY:

Signature Leann Murphy
 Printed Name Leann Murphy

Firm TURNER LABORATORIES, INC.

Date/Time 9/2/21

NUMBER OF CONTAINERS

See attachment

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM
 TURNER WORK ORDER # 210886 DATE 9-1-21 PAGE 1

TURNAROUND REQUIREMENTS:

Standard (approx. 10 days)*
 Next day 5 Day*
 Next day 2 Day

* LEGEND
 DW = DRINKING WATER
 GW = GROUNDWATER
 SD = SOLID
 SG = SLUDGE
 SL = SOIL

REPORT REQUIREMENTS:

- I. Routine Report
- II. Report (Includes DUP, MS, MSD, as required, may be changed as samples)
- III. Date Validation Report (Includes All Raw Data)

INVOICE INFORMATION:

Account _____ Y _____ N
 P.O. # _____
 Bill to: _____

SAMPLE RECEIPT:

Total Containers 3
 Temperature 4.1
 Wet Ice Blue Ice

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: YES NO

AD EQ Forms: YES NO

Mail AD EQ Forms: YES NO

COC/Labels Agree

Received Within Hold Time

BOTTLE LIST		
Volume	Preservative	Parameter
250ml	HNO3	Metals
250ml	Non-Preserved	Hardness/pH/Conductivity
500ml	NaOH	Free Cyanide

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Turbidity
Flow
Appearance

Outfall 2 (Trench)			
LABORATORY			
Analyte	Total	Dissolved	Other
Metals			
Copper	X	X	
Lead	X	X	
Silver	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		
Other Parameters			
Free Cyanide	X	X	
pH			X
Specific Conductance			X