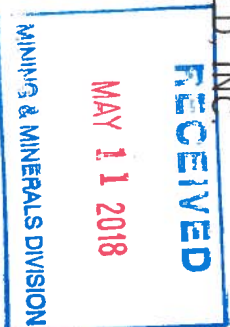




CHAPMAN, WOOD AND GRISWOLD, INC.
MINING ENGINEERS AND GEOLOGISTS
4015 CARLISLE BOULEVARD, N.E., SUITE C
ALBUQUERQUE, NEW MEXICO 87107

TELEPHONE: (505) 883-0220



Mr. James R. Hollen
Mining Act Reclamation Program
Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: **Remedial Action Plan**
American Minerals Inc. Deming Manganese Site,
Permit Nos. LU001RE and DP 1234

Dear Mr. Hollen:

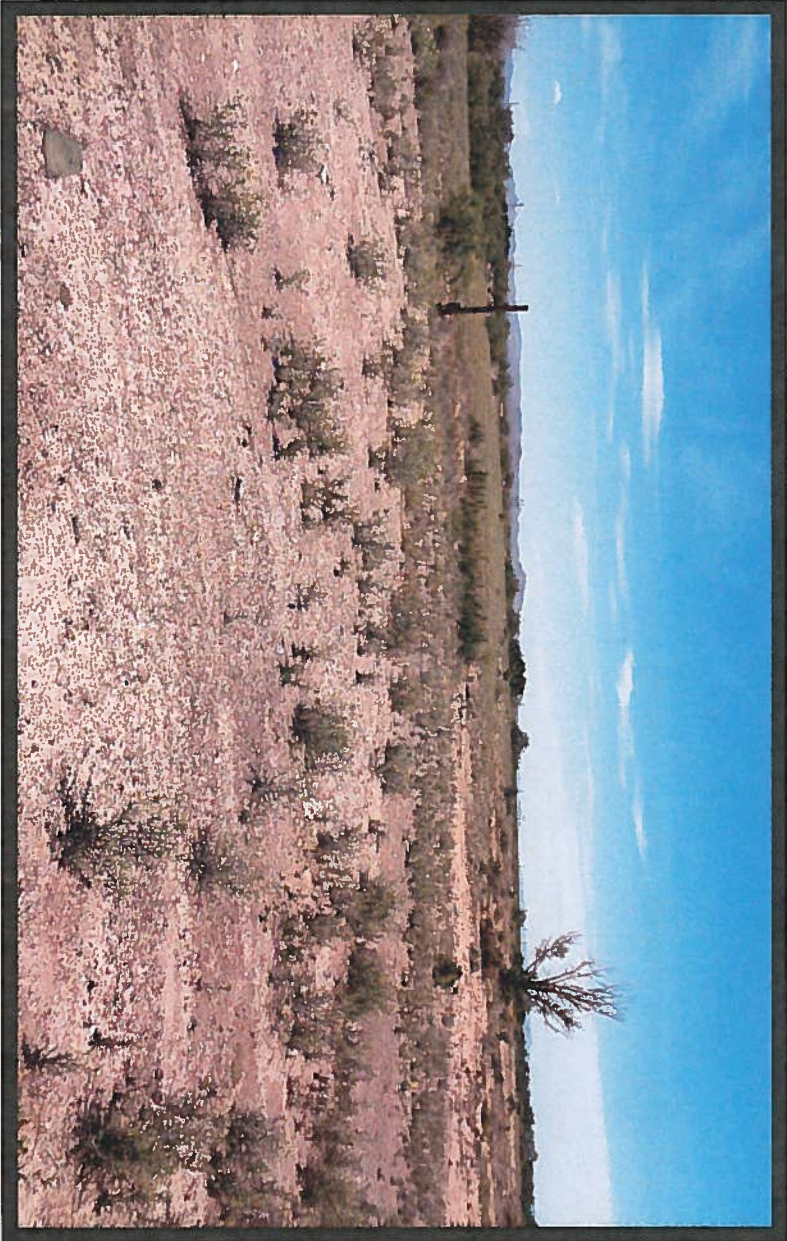
Enclosed is a short report with exhibits titled “**Remedial Action Plan**” for the American Minerals former Deming Manganese Processing Site. I am hoping that I can get a verbal approval to move forward, subject to a formal approval with possible suggestions and/or modifications. With the verbal approval I can get a contractor in to provide me with an estimate and time frame for completion of the work. I would like to have it all completed by mid- to late-June, if possible, and then do the **Public Notice** soon thereafter.

Sincerely,

Douglas F. Irving
Agent for American Minerals, Inc.

Copy : Paul V. Hall, American Minerals, Inc.

**REMEDIAL ACTION PLAN
FORMER DEMING MANGANESE-PROCESSING SITE
OF AMERICAN MINERALS, INC.**



PREPARED BY

**CHAPMAN, WOOD AND CRISWOLD, INC.
CONSULTING MINING ENGINEERS AND GEOLOGISTS
ALBUQUERQUE, NEW MEXICO**

SUBMITTED TO

**MINING AND MINERALS DIVISION
ENERGY, MINERAL AND NATURAL RESOURCES DEPARTMENT
SANTA FE, NEW MEXICO**

MAY 2018

Remedial Action Plan
American Minerals Inc. Deming Manganese Site
Permit Nos. LU001RE and DP 1234

On July 18, 2017 a Plan for Site Remedial Work was submitted to the Mining and Minerals Division (MMD) for the purpose of obtaining a Release of the site from further obligations under the Mining Act Reclamation Program. Subsequent examination of the site revealed exposures of fine-grained manganese tailing in the protective berm along the northeast side of the site. The berm lies against the channel of the Rio Mimbres.

It was known from a prior site evaluation in 2015 (hand-auger holes) that there was thin cover (less than 12-inches thick) in portions of the southwest part of the site. That issue was addressed in the July 18 Plan. A decision was made by the Environment Department Mining Environmental Compliance Section (ED), to further evaluate the site cover with the aid of a backhoe. That work was organized and Deming Excavating, Inc. was retained to dig shallow backhoe pits under the direction of ED. The work was done on February 9, 2018. The following personnel were on site:

Keith Ehlert	ED (Lead man)
Jonathan Beyeler	ED (assistant)
George Llewellyn	ED (assistant)
James Hollen	MMD (observer)
Doug Irving	CWG (AMI representative)

During the operation two personnel from the City of Deming made a site visit to briefly observe the work.

Forty-eight pits were dug around the site. About half of those pits were dug in areas of identified thin cover along the northern berm, the southeast corner, and the western boundary. The attached photo map at a scale of 1 inch equals 100 feet is a site plan showing the location of the backhoe pits (2018) and the hand-auger holes (2015) with the cover thickness in inches. Areas requiring remedial work are outlined.

A new Plan has been prepared to address the site remedial work. This Plan replaces the one submitted on July 18, 2017 and significantly increases the amount of remedial work that will be required to bring the site into compliance prior to being released.

To facilitate the release, the City of Denning in November 2016 requested that MMD change the Post Mine Land Use (PMLU) designation from “**Grazing and Wildlife**” to “**Industrial**” (Letters attached). The City owns the 20-acre lot and leases it to American Minerals, Inc. (AMI). Approximately 16 acres was utilized for the manganese-processing operation. The facility was closed in 2003 and the site was reclaimed in 2005 under an approved plan. The stockpiled manganese rejects from the jigging plant, estimated at 78,000 cu. yd., were buried on site. The sediment ponds containing manganese fines were backfilled and the entire site was graded and capped with 12 inches of dirt and gravel and finished with a one-inch-thick cover of topsoil. The site was then seeded with an approved seed mix.

Initially the site developed a good vegetative cover but the drought condition of the past few years has had a significant negative impact. Today the site has a modest growth of grasses and an abundance of invasive weeds. Mesquite bush and other native shrubs are beginning to grow in some areas. The south half of the southwest quarter of the site contains only sparse vegetation. (See attached photographs).

A. Proposed Remedial Work

Eight areas as shown on the accompanying site plan require attention. Most areas typically require an additional six inches of cover material. Area 4 along the Rio Mimbres will require excavation of the exposed fine-grained manganese tailing with subsequent burial in a selected locale in the northwest part of the site.

The additional cover material will typically comprise a 4-inch thickness of clean fill dirt capped by a 2-inch thickness of medium-to-coarse gravel (minus-2-inch) to act as an armor for protection against wind and water erosion. Each 1,000 sq. ft of area will require 18.5 cu yd of material (12.3 cu yd of fill dirt and 6.2 cu yd of gravel cap). These areas will be seeded with the approved seed mix prior to the onset of the summer rainy season which typically commences in the June-July period and continues through September.

The individual areas are described below. Not all areas require the same treatment and the actual placement of cover will be determined by field testing. An estimated total of 600 to 800 cubic yards of additional material may be needed in order to bring the cover thickness on the site up to the required 12-inch minimum.

Area 1 - Southwest part of the site. The existing cover thickness probably averages about 7 inches. An additional 6 inches of cover will be placed on the 11,000 sq. ft area.

Area 2 - West-side berm. The berm is topped by a dirt access road along the property boundary. The inside (i.e. east side) slope of the berm has a variable cover thickness of 5 to 15 inches. A 6- to 8-inch layer of additional material will be placed on the face of the berm.

Area 3 - Northwest corner of site. A small area contains a few cubic feet of exposed manganese tailing mixed with sand and gravel. The manganimiferous material will be removed with a front-end loader / excavator and placed into a nearby burial pit (see site plan). The area will be contoured and covered with a 2-inch layer of gravel. The existing cover is up to 2 feet thick.

Area 4 - Northeast berm along the Rio Mimbres. A 450-foot length of the berm extending southeasterly from the riprapped overflow channel contains numerous exposures of fine-grained manganese tailing, some of which is 2 and 3 feet thick. Much of the exposed tailing occurs in the steep slope of the berm facing the river bed.

It is proposed to excavate a significant quantity of the tailing to a depth of about 2 feet and remove it to a nearby burial pit situated 200 to 300 feet to the west. As much as 20 to 30 cu. yds. of tailing may require excavation. The excavated areas will be backfilled with clean sand and dirt from the pit, graded and sloped to a lower angle and covered with 2 to 3 inches of coarse gravel. If needed, additional fill dirt will be brought in from off site.

Area 5 - Southeast berm. A 200-foot length of the moderately northeast-sloping outer face of the berm is developing corrugations from rainfall which in time will grow into defined channel ways. A layer of coarse gravel will be added to the area.

Area 6 - East-central area. A circular area up to 100 feet in diameter may require the addition of 2 or 3 inches of additional material. Field testing with a hand shovel will determine the requirements.

Area 7 - Southeast corner berm. A 280-foot length of the berm and the adjoining inboard area has an inadequate cover thickness. The existing cover depth ranges from 3 to 18 inches. An additional 6 to 8 inches (average) of material will be placed on the area.

Area 8 - South edge of property, adjoining Area 7. A 370-foot-long area contains insufficient cover, ranging in thickness from 6 to 10 inches. An additional 6 inches of cover will be placed on the area.

B. Manganese Burial Pit

A 6-foot-deep burial-pit will be excavated in a topographically low area in the northwest part of the site (see site plan). Machine auger drilling in this area in December 2008 found clean sand to a depth of 18 feet (hole depth). Manganiferous materials, principally fine-grained tailing from the northside berm, will be placed into the pit to within 18 to 24 inches of the top and then covered with sand followed by a 2- to 3-inch gravel cap.

Up to 25 cu yd of tailing may need to be buried, requiring a pit about 12 to 15 feet square and 6 feet deep which will be sufficient for 4 feet of tailing capped with 2 feet of sand.

C. Groundwater Monitoring

The monitor well was last sampled on October 30, 2017 and as stated on Page 3 of the 2017 Annual Report issued December 15, 2017 “Monitor-well sampling results continue to show good quality ground water with no evidence of deterioration over the past 3 years.”

The depth to water was measured on February 8, 2018 during a site visit and was at 79.58 feet, virtually identical to a measurement taken on December 4, 2017.

D. Site Closure and Release

Following completion of the site-approved remedial work, AMI will issue a site status report and request a release from further obligations and liabilities on the site. Termination of the two Permits covering the site, viz. **LU001RE** and **DP 1234** requires an **Application** by the company providing proof that the **Applicant** has complied with **Part 9, Public Participation, of the New Mexico Mining Act Rules**, specifically **19.10.9.903 (Public Requirements)**. To assist in this matter, the Luna County Assessor’s Office has supplied a list of all the property owners

within one-half mile of the site for which notice of this action must be supplied. Additionally, MMD has supplied a list of all the interested parties who have requested notification of such action.

Once the company (American Minerals, Inc.) has received a **Release** from further obligations and liabilities from **MMD**, the **City of Denning** will be notified and the **Lease** terminated. An **Application for Abandonment** of the monitor well will be filed with the **Environment Department** and the **Office of the State Engineer**.

Following completion of the remedial work, a **Public Notice** will be prepared for your review and approval.

Yours sincerely,



Douglas F. Irving, P.E.
CHAPMAN, WOOD AND GRISWOLD, INC.
Agent for American Mineral Inc.



Enclosures:

Photographs

Site Plan on aerial photography

Hall Environmental Lab report (Nov. 20, 2017)

Table of long-term Monitor Well sample results

Letters from the City of Denning discussing a change in the PLMU (Nov. 2016 and May 9, 2017)

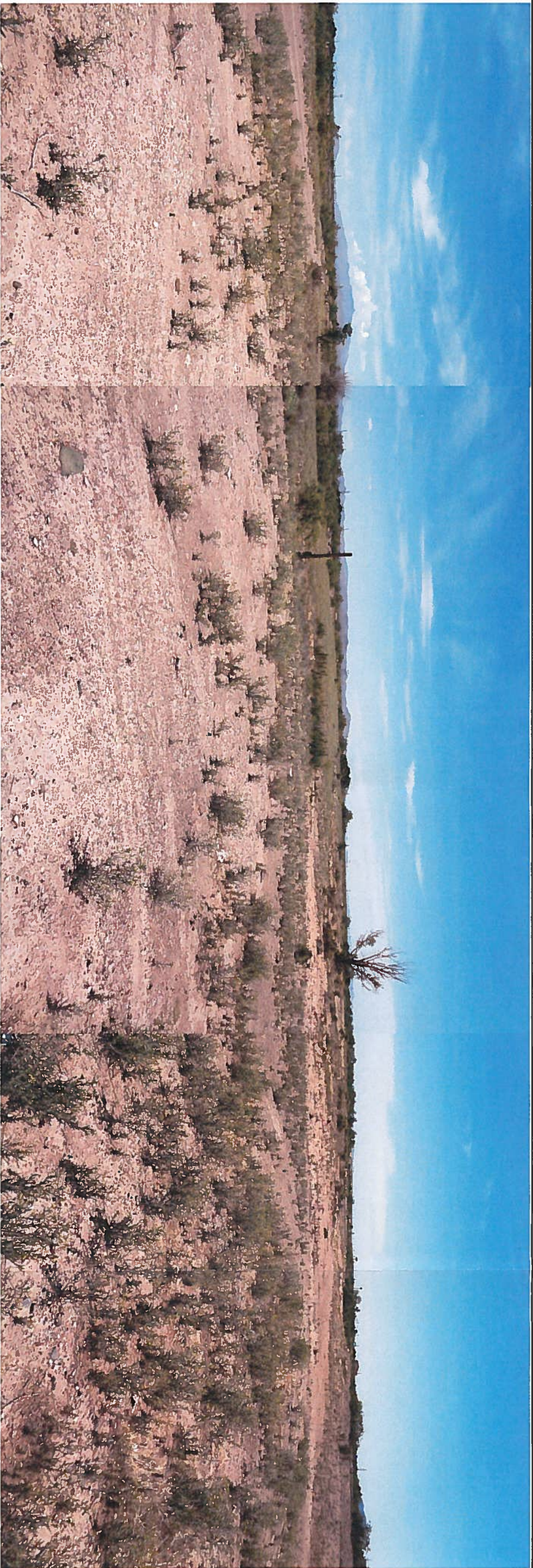
Copies with enclosures:

George Llewellyn, Ground Water Bureau, E.D., Silver City, NM

Jonathan Beyeler, Mining Environmental Compliance Section, E.D., Santa Fe, NM

Paul V. Hall, V.P., American Minerals, Inc., Andersonville, GA

Jim Massengill, Public Works Director, City of Denning



1. Panoramic views across the AMI site taken from the southwest corner where the former processing plant was located. The view is north (left) to east (right). June 8, 2017 (top) and February 8, 2018 (bottom)



2. Backhoe trench in the northern part of the site.
Excavated to 24 inches with no manganese. (February 9, 2018)



3. Backhoe trench along the west side of the site with manganese tailing
showing at a depth of 12 inches. (February 9, 2018)



4. Exposed manganese tailing in the northeast berm. (February 9, 2018)



5. Backhoe pit in southeast corner showing shallow cover varying from 3 to 12 inches in thickness. (February 9, 2018)



Aerial photograph of AMI site showing depth of cover over buried manganese tailings and areas requiring remedial work.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 20, 2017

Doug Irving

Chapman, Wood & Griswold Inc
4015 Carlisle Blvd NE Ste C

Albuquerque, NM 87107

TEL: (505) 883-0220

FAX

RE: AMI Deming

OrderNo.: 1710F98

Dear Doug Irving:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/31/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in dark ink, appearing to read "Andy", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

CLIENT: Chapman, Wood & Griswold Inc

Client Sample ID: Monitor Well #1

Project: AMI Deming

Collection Date: 10/30/2017 11:45:00 AM

Lab ID: 1710F98-001

Matrix: AQUEOUS

Received Date: 10/31/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							
Arsenic	0.0018	0.0010		mg/L	1	11/2/2017 7:17:19 PM	B46846
Copper	0.0026	0.0010		mg/L	1	11/2/2017 7:17:19 PM	B46846
Lead	ND	0.00050		mg/L	1	11/2/2017 7:17:19 PM	B46846
EPA METHOD 300.0: ANIONS							
Fluoride	0.62	0.10		mg/L	1	11/13/2017 11:09:29 AM	R47111
Chloride	6.1	0.50		mg/L	1	11/1/2017 1:08:12 AM	A46770
Sulfate	47	10		mg/L	20	11/1/2017 1:45:24 AM	A46770
SM2510B: SPECIFIC CONDUCTANCE							
Conductivity	520	5.0		µmhos/cm	1	11/1/2017 9:04:31 PM	R46796
SM2320B: ALKALINITY							
Bicarbonate (As CaCO3)	199.1	20.00		mg/L CaCO3	1	11/1/2017 9:04:31 PM	R46796
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	11/1/2017 9:04:31 PM	R46796
Total Alkalinity (as CaCO3)	199.1	20.00		mg/L CaCO3	1	11/1/2017 9:04:31 PM	R46796
SM2540C MOD: TOTAL DISSOLVED SOLIDS							
Total Dissolved Solids	332	40.0	D	mg/L	1	11/2/2017 8:12:00 PM	34743
SM4500-H+B: PH							
PH	8.18		H	pH units	1	11/1/2017 9:04:31 PM	R46796
EPA METHOD 200.7: DISSOLVED METALS							
Aluminum	0.056	0.020		mg/L	1	11/13/2017 3:43:00 PM	A47084
Cadmium	ND	0.0020		mg/L	1	11/13/2017 3:43:00 PM	A47084
Calcium	52	1.0		mg/L	1	11/13/2017 3:43:00 PM	A47084
Chromium	ND	0.0060		mg/L	1	11/13/2017 3:43:00 PM	A47084
Cobalt	ND	0.0060		mg/L	1	11/13/2017 3:43:00 PM	A47084
Iron	0.037	0.020		mg/L	1	11/13/2017 3:43:00 PM	A47084
Magnesium	11	1.0		mg/L	1	11/13/2017 3:43:00 PM	A47084
Manganese	0.0048	0.0020		mg/L	1	11/13/2017 3:43:00 PM	A47084
Nickel	ND	0.010		mg/L	1	11/13/2017 3:43:00 PM	A47084
Potassium	2.6	1.0		mg/L	1	11/13/2017 3:43:00 PM	A47084
Sodium	43	1.0		mg/L	1	11/13/2017 3:43:00 PM	A47084
Zinc	0.036	0.010		mg/L	1	11/14/2017 6:28:36 PM	B47138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		* Value exceeds Maximum Contaminant Level		B Analyte detected in the associated Method Blank	
D	Sample Diluted Due to Matrix			E	Value above quantitation range
H	Holding times for preparation or analysis exceeded			J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit			P	Sample pH Not In Range
PQL	Practical Quantitative Limit			RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix			W	Sample container temperature is out of limit as specified

Page 1 of 8

Client: Chapman, Wood & Griswold Inc
Project: AMI Deming

Sample ID	MB-A	SampleType: MBLK	TestCode: EPA Method 200.7: Dissolved Metals
Client ID:	PBW	Batch ID: AA7084	RunNo: 47084
Prep Date:		Analysis Date: 11/13/2017	SeqNo: 1502835 Units: mg/L
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Aluminum	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LLCS-A	SampleType: LCSL	TestCode: EPA Method 200.7: Dissolved Metals
Client ID:	BatchQC	Batch ID: AA7084	RunNo: 47084
Prep Date:		Analysis Date: 11/13/2017	SeqNo: 1502836 Units: mg/L
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Aluminum	ND	0.020	0.01000	0	115	50	150			
Cadmium	0.0021	0.0020	0.002000	0	106	50	150			
Calcium	ND	1.0	0.5000	0	104	50	150			
Chromium	ND	0.0060	0.006000	0	93.5	50	150			
Cobalt	ND	0.0060	0.006000	0	96.8	50	150			
Iron	0.022	0.020	0.02000	0	108	50	150			
Magnesium	ND	1.0	0.5000	0	108	50	150			
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Nickel	ND	0.010	0.005000	0	99.0	50	150			
Potassium	ND	1.0	0.5000	0	100	50	150			
Sodium	ND	1.0	0.5000	0	108	50	150			

Sample ID	LCS-A	SampleType: LCS	TestCode: EPA Method 200.7: Dissolved Metals
Client ID:	LCSW	Batch ID: AA7084	RunNo: 47084
Prep Date:		Analysis Date: 11/13/2017	SeqNo: 1502837 Units: mg/L
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Aluminum	0.55	0.020	0.5000	0	111	85	115			
Cadmium	0.48	0.0020	0.5000	0	97.0	85	115			
Calcium	50	1.0	50.00	0	99.3	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Cobalt	0.46	0.0060	0.5000	0	91.3	85	115			
Iron	0.48	0.020	0.5000	0	96.4	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 2 of 8

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F98

20-Nov-17

Client:

Chapman, Wood & Griswold Inc

Project:

AMI Deming

Sample ID	LCS-A	Sample Type: LCS	Test Code: EPA Method 200.7: Dissolved Metals
Client ID:	LCSW	Batch ID: AA7084	RunNo: 47084
Prep Date:	Analysis Date: 11/13/2017 SeqNo: 1502837 Units: mg/L		
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Magnesium	51	1.0	50.00 0 101 85 115
Manganese	0.47	0.0020	0.5000 0 94.7 85 115
Nickel	0.46	0.010	0.5000 0 91.1 85 115
Potassium	50	1.0	50.00 0 99.3 85 115
Sodium	50	1.0	50.00 0 100 85 115

Sample ID	MB-B	Sample Type: MBLK	Test Code: EPA Method 200.7: Dissolved Metals
Client ID:	PBW	Batch ID: B47138	RunNo: 47138
Prep Date:	Analysis Date: 11/14/2017 SeqNo: 1504167 Units: mg/L		
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Zinc	ND	0.010	

Sample ID	LLCS-B	Sample Type: LCSL	Test Code: EPA Method 200.7: Dissolved Metals
Client ID:	BatchQC	Batch ID: B47138	RunNo: 47138
Prep Date:	Analysis Date: 11/14/2017 SeqNo: 1504169 Units: mg/L		
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Zinc	ND	0.010	0.005000 0 133 50 150

Sample ID	LCS-B	Sample Type: LCS	Test Code: EPA Method 200.7: Dissolved Metals
Client ID:	LCSW	Batch ID: B47138	RunNo: 47138
Prep Date:	Analysis Date: 11/14/2017 SeqNo: 1504171 Units: mg/L		
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Zinc	0.48	0.010	0.5000 0 95.1 85 115

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710F98

20-Nov-17

Client: Chapman, Wood & Griswold Inc

Project: AML Deming

Sample ID	MB	SampleType: MBLK	TestCode: EPA 200.8: Dissolved Metals
Client ID:	PBW	Batch ID: B46846	RunNo: 46846
Prep Date:		Analysis Date: 11/2/2017	SeqNo: 1494397 Units: mg/L
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Arsenic ND 0.0010

Copper ND 0.0010

Lead ND 0.00050

Sample ID	LLCS	SampleType: LCSLL	TestCode: EPA 200.8: Dissolved Metals
Client ID:	BatchQC	Batch ID: B46846	RunNo: 46846
Prep Date:		Analysis Date: 11/2/2017	SeqNo: 1494400 Units: mg/L
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Arsenic 0.0011 0.0010 0.001000 0 108 50 150

Copper 0.0010 0.0010 0.001000 0 103 50 150

Lead ND 0.00050 0.0005000 0 98.9 50 150

Sample ID	LCS	SampleType: LCS	TestCode: EPA 200.8: Dissolved Metals
Client ID:	LCSW	Batch ID: B46846	RunNo: 46846
Prep Date:		Analysis Date: 11/2/2017	SeqNo: 1494402 Units: mg/L
Analyte	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Arsenic 0.024 0.0010 0.02500 0 95.6 85 115

Copper 0.024 0.0010 0.02500 0 96.1 85 115

Lead 0.012 0.00050 0.01250 0 93.1 85 115

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.

B

Analyte detected in the associated Method Blank
- D

Sample Diluted Due to Matrix

E

Value above quantitation range
- H

Holding times for preparation or analysis exceeded

J

Analyte detected below quantitation limits
- ND

Not Detected at the Reporting Limit

P

Sample pH Not In Range
- PQL

Practical Quantitative Limit

RL

Reporting Detection Limit
- S

% Recovery outside of range due to dilution or matrix

W

Sample container temperature is out of limit as specified

Client: Chapman, Wood & Griswold Inc
Project: AMI Deming

Sample ID	MB	SampleType: mbik	TestCode: EPA Method 300.0: Anions
Client ID:	PBW	Batch ID: A46770	RunNo: 46770
Prep Date:		Analysis Date: 11/1/2017	SeqNo: 1492015 Units: mg/L
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 0.50
Sulfate ND 0.50

Sample ID	LCS	SampleType: lcs	TestCode: EPA Method 300.0: Anions
Client ID:	LCSW	Batch ID: A46770	RunNo: 46770
Prep Date:		Analysis Date: 11/1/2017	SeqNo: 1492016 Units: mg/L
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 5.2 0.50 5.000 0 104 90 110
Sulfate 10 0.50 10.00 0 100 90 110

Sample ID	1710F98-001AMS	SampleType: ms	TestCode: EPA Method 300.0: Anions
Client ID:	Monitor Well #1	Batch ID: A46770	RunNo: 46770
Prep Date:		Analysis Date: 11/1/2017	SeqNo: 1492018 Units: mg/L
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 11 0.50 5.000 6.073 106 80.8 121

Sample ID	1710F98-001AMSD	SampleType: msd	TestCode: EPA Method 300.0: Anions
Client ID:	Monitor Well #1	Batch ID: A46770	RunNo: 46770
Prep Date:		Analysis Date: 11/1/2017	SeqNo: 1492019 Units: mg/L
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 12 0.50 5.000 6.073 109 80.8 121 1.16 20

Sample ID	MB	SampleType: mbik	TestCode: EPA Method 300.0: Anions
Client ID:	PBW	Batch ID: R47111	RunNo: 47111
Prep Date:		Analysis Date: 11/13/2017	SeqNo: 1502984 Units: mg/L
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Fluoride ND 0.10

Sample ID	LCS	SampleType: lcs	TestCode: EPA Method 300.0: Anions
Client ID:	LCSW	Batch ID: R47111	RunNo: 47111
Prep Date:		Analysis Date: 11/13/2017	SeqNo: 1502985 Units: mg/L
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Fluoride 0.48 0.10 0.5000 0 95.3 90 110

QC SUMMARY REPORT

WO#: 1710F98
20-Nov-17

Hall Environmental Analysis Laboratory, Inc.

Client: Chapman, Wood & Griswold Inc

Project: AMI Deming

Sample ID	lcs-1 ~20us ec		SamplType:	LCS		TestCode:	SM2510B: Specific Conductance				
Client ID:	LCSW		Batch ID:	R46796		RunNo:	46796				
Prep Date:			Analysis Date:	11/11/2017		SeqNo:	1494024		Units:	µmhos/cm	
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	Lowlimit	Highlimit	%RPD	RPDLimit	Qual	
Conductivity	22	5.0	19.96	0	110	80	120				

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

J Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Detection Limit

W Sample container temperature is out of limit as specified

Client: Chapman, Wood & Griswold Inc

Project: AMI Deming

Sample ID	mb-1 alk	SampleType: MBLK	TestCode: SM2320B: Alkalinity
Client ID:	PBW	Batch ID: R46796	RunNo: 46796
Prep Date:		Analysis Date: 11/1/2017	SeqNo: 1493980 Units: mg/L CaCO3
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Total Alkalinity (as CaCO3)		ND 20.00	

Sample ID	lcs-1 alk	SampleType: LCS	TestCode: SM2320B: Alkalinity
Client ID:	LCSW	Batch ID: R46796	RunNo: 46796
Prep Date:		Analysis Date: 11/1/2017	SeqNo: 1493981 Units: mg/L CaCO3
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Total Alkalinity (as CaCO3)		79.24 20.00 80.00	0 99.0 90 110

Sample ID	mb-2	SampleType: MBLK	TestCode: SM2320B: Alkalinity
Client ID:	PBW	Batch ID: R46796	RunNo: 46796
Prep Date:		Analysis Date: 11/1/2017	SeqNo: 1494004 Units: mg/L CaCO3
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Total Alkalinity (as CaCO3)		ND 20.00	

Sample ID	lcs-2	SampleType: LCS	TestCode: SM2320B: Alkalinity
Client ID:	LCSW	Batch ID: R46796	RunNo: 46796
Prep Date:		Analysis Date: 11/1/2017	SeqNo: 1494005 Units: mg/L CaCO3
Analyte		Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Total Alkalinity (as CaCO3)		80.04 20.00 80.00	0 100 90 110

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

W/O#: 1710F98

20-Nov-17

Client: Chapman, Wood & Griswold Inc

Project: AMI Deming

Sample ID	MB-34743	SampleType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID:	PBW	Batch ID: 34743	RunNo: 46848							
Prep Date:	11/1/2017	Analysis Date: 11/2/2017	SeqNo: 1493844		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Lowlimit	Highlimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-34743	SampleType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID:	LCSW	Batch ID: 34743	RunNo: 46848							
Prep Date:	11/1/2017	Analysis Date: 11/2/2017	SeqNo: 1493845		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Lowlimit	Highlimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Chipman Wood Griewold Work Order Number: 1710F98

Rep/No: 1

Received By: Erin Melendrez 10/31/2017 8:15:00 AM

WMS

Completed By: Ritchie Etchacho 10/31/2017 3:38:20 PM

RL

Reviewed By: SKR 10/31/17

Chain of Custody

1. Custody seals intact on sample bottles?

Yes

No

Not Present
2. Is Chain of Custody complete?

Yes

No

Not Present
3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes

No

NA
5. Were all samples received at a temperature of >0° C to 6.0°C

Yes

No

NA
6. Sample(s) in proper container(s)?

Yes

No
7. Sufficient sample volume for indicated test(s)?

Yes

No
8. Are samples (except VOA and ONG) properly preserved?

Yes

No
9. Was preservative added to bottles?

Yes

No

NA
10. VOA vials have zero headspace?

Yes

No

No VOA Vials
11. Were any sample containers received broken?

Yes

No
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)

Yes

No
13. Are matrices correctly identified on Chain of Custody?

Yes

No
14. Is it clear what analyses were requested?

Yes

No
15. Were all holding times able to be met?
(if no, notify customer for authorization.)

Yes

No
- # of preserved bottles checked for pH: 2
Adjusted? NO
Checked by: DJS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes

No

NA

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

cooler No.	Condition	Seal Intact	Seal Not Intact	Inspected By:
06	Good			

[illegible]

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

	Initials	Date
Prepared By		
Approved By		



BENNY L. JASSO, MAYOR

AARON SERA, ADMINISTRATOR

Phone (575) 546-8848 • Fax (575) 546-6442
E-MAIL: deming@cityofdeming.org • Website: www.cityofdeming.org
P.O. BOX 708 • DEMING, NEW MEXICO 88031
POPULATION 14,000

Nov 2016

Mining & Minerals Division
Energy, Mineral, and Natural Resources Department
ATTN: Mr. James R. Hollen
1220 South St. Francis Drive
Santa Fe, New Mexico, 87505

RE: Former Deming Manganese Processing site of American Minerals, Inc.,
Permit No. LU001RE

Dear Mr. Hollen:


The City of Deming owns the 20-acre site which was used by American Minerals, Inc. (AMI) for the processing of manganese ore. Operations ceased in 2003 and in 2005 the site was reclaimed under a plan approved by the Mining and Minerals Division (MMD). The Post Mine Land Use (PMLU) for the site is currently designated as "Grazing and Wildlife" by MMD.

For years, the City of Deming has regarded the site as "Industrial." It is the City's intent to use the site for "Industrial" purposes at some future time and it is our understanding that, subject to AMI satisfactorily fulfilling its obligations under the required 12-year post-reclamation monitoring period, the site will be released and AMI will have no further liabilities. That 12-year period ends in July of 2017.

The City of Deming as property owner hereby requests that MMD change the PMLU from "Grazing" to "Industrial."

Thank you for your consideration.

Sincerely,


Aaron Sera, City Manager



BENNY L. JASSO, MAYOR

AARON SERA, ADMINISTRATOR

Phone (575) 546-8848 - Fax (575) 546-8442

E-MAIL: deming@cityofdeming.org - Website: www.cityofdeming.org

P.O. BOX 708, DEMING, NEW MEXICO 88031

POPULATION 14,000

May 09, 2017

Doug Irving, Agent
American Minerals, Inc.
4015 Carlisle Blvd. NE Suite C
Albuquerque, NM 87107

RE: Deming Manganese Processing Facility
Post Mining Land Use (PMLU) Designation
Future Land Use

Mr. Irving,

Site visit discussions on May 01, 2017 with NM Mining Act representatives helped to clarify the City's involvement as it relates to NM Mining and Minerals letter dated March 02, 2017 and the associated guidelines.

The City has multiple industrial parks for development considerations. The referenced area ranks low for the bulk of economic development proposals as the location can only be accessed through residential subdivisions and is immediately adjacent to the County's detention center.

The City does consider the referenced site as an option for a solar array. It is a viable consideration given the proximity of the site to two high electricity consuming facilities, the County's detention center, and the County's entertainment facility. Together with a proposed recreational effluent storage pond in the vicinity that would require multiple pumps to operate, the old processing site has promise for a solar array to help offset electric costs.

Although there is no guarantee the solar array will materialize, it remains a future consideration.

Sincerely,

Aaron Sera
City Administrator