Battle Mountain Resources, Inc. San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

March 21, 2023

Mr. Lucas West State of Colorado Division of Reclamation, Mining and Safety Room 215 1001 E 62nd Avenue Denver, CO 80216

Re: Battle Mountain Resources, Inc. San Luis Project - San Luis, Colorado Annual Report and Fee 2022 CMLRB Permit No. M-1988-112

Dear Mr. West:

Please find included the Battle Mountain Resources, Inc. (BMRI) "San Luis Project" (Permit No. M-1988-112) Annual Report and a site map as requested in the February 21, 2023, email from the Colorado Division of Reclamation, Mining, and Safety (CDRMS) to Julio Madrid of BMRI/Newmont. The following summarizes the operation, reclamation, permitted area, dam inspections, and site monitoring activities performed, as well as any technical revisions and permit amendments made for the San Luis Project during 2022.

General Reclamation Activities

Reclamation activities and technical revisions during 2022 included:

- Completed Technical Revision 36 (TR-36) to convert Pond 2's lining from HDPE to concrete ;
- Continued stormwater management on and adjacent to reclaimed and unreclaimed mine land. Stormwater inspections were performed on May 23, 2022 and September 21 2022, and any issues noted were corrected;
- Treatment of water from the West Pit and Rito Seco alluvial groundwater systems;
- Tailing facility storage pond, underdrain, and leak detection system management;
- Surface and ground water management.

Reclamation Areas

BMRI did not perform any additional reclamation in 2022. There are 78.7 acres of reclamation remaining, as summarized in Table 1.

Area	Actual	Reclamation	Reclamation	Remaining
	Disturbance	Completed	Completed In	Reclamation
	(Acres)	Through	2022	(Acres)
	• •	2021 (Acres)	(Acres)	
East Pit	20	20	0	0
West Pit	100	71.3	0	28.7
Waste Rock A	0	0	0	0
Waste Rock B	18	18	0	0
Waste Rock C	28	28	0	0
Waste Rock D	42	42	0	0
South Waste Rock	35	35	0	0
Mill Area	25.6	25.6	0	0
ESI Leach Pad	10	10	0	0
Borrow Area	5.5	0	0	5.5
Road Around Tailing				
Facility and Collection	4	0	0	4
Pond				
Tailing Facility Perimeter	12.0	0	0	12.0
Road	12.9	0	0	12.9
Waste Rock C Access	3.7	3.7	0	0
Road	5.7	5.7	0	0
Pink Gneiss Pit Haul	3.8	3.8	0	0
Road	5.8	5.8	0	0
Tailing Facility	192	169.4	0	22.6
Tailing Collection Pond	5	0	0	5
Admin. Office Complex				
– Deeded lands to				
Costilla County Soil	3	3	0	0
Conservation District	_	_	_	-
(CCSCD)				
Total Area	508.5	429.8	0	78.7

Table 1 - Summary of San Luis Project Reclamation

Permitted Areas

The current unreleased Permit Areas consist of both reclaimed and un-reclaimed land and disturbed and undisturbed land. BMRI did not receive a land release in 2022, therefore the 2022 Permit Area remaining is 428.22 acres. Table 2 summarizes the disturbed areas in the permit.

Area	Permitted Disturbance (Acres)	Actual Disturbance Areas (Acres)	Disturbance Areas Released from Permit Area (Acres)	Disturbance Areas Remaining in Permit Area (Acres)
East Pit	20	20	20	0
West Pit	110	100	8.9	91.1
Waste Rock A	0	0	0	0
Waste Rock B	18	18	18	0
Waste Rock C	30	28	25.8	2.2
Waste Rock D	42	42	42	0
South Waste Rock	50	35	33.6	1.4
Mill Area	25.6	25.6	15.6	10.0
ESI Leach Pad	10	10	10	0
Borrow Area	11	5.5	0	5.5
Roads	30	24.4	13.2	11.2
Tailing Facility	192	192	17.6	174.4
Tailing Collection Pond	5	5	0	5
Admin. Office Complex – Deeded lands to Costilla County Soil Conservation District (CCSCD)	3	3	3	0
Total Area	546.6	508.5	207.7	300.8

Table 2 - Summary of Permitted Areas

Dam Inspections

During 2022, quarterly dam inspections were performed as required in Technical Revision 33 (TR-33). The first, third, and fourth quarter dam inspections were performed by BMRI and the second quarterly inspection was done by EA's Mark Abshire as the 2022 Annual Dam Inspection. The dam inspections were submitted previously to CDRMS and are also included in Appendix A of this report.

Site Monitoring

Water level data, laboratory analytical results, and flows were submitted to CDRMS as part of the Monthly Reports throughout 2022 and are also included in Appendix B of this report. During 2022, groundwater sampling and water level measurements were performed as required in Technical Revision 32 (TR-32). Sampling and laboratory analyses for groundwater monitoring well M-14 continued during 2022 under the CDRMS approved Response Plan. M-14 will continue to be sampled and results reported, as required in TR-32, in 2023.

The Lined Tailing Facility (LTF) collection pond leak detection system (underdrain) was monitored monthly and evacuated and pumped to the LTF. The monthly leak-detection flows for

2022 ranged from a low of 25.6 gallons per day (gpd) to a high of 31.8 gpd. The average monthly leak-detection flow, for 2022, was 28.8 gpd. The collection pond underdrain water was sampled and analyzed quarterly and the results and flows were submitted to CDRMS in the Monthly and Quarterly Sampling Reports and are also included in Appendix B of this report.

The LTF underdrain flows were monitored monthly at the base of the embankment and the flows for 2022 ranged from a low of 28.4 gallons per minute (gpm) to a high of 33.0 gpm. In 2022, the monthly average underdrain flow was 31.8 gpm. The monthly underdrain flows were submitted previously to CDRMS as part of the Monthly Reports and are also included in Appendix B of this report.

The LTF system lysimeters were monitored monthly. The lysimeters were dry or contained less than twelve inches of water and no groundwater was present for sampling or analysis in 2022.

There was no sludge transferred from the water treatment plant drying pads to the LTF in 2022. The monthly sludge management information was submitted previously to the CDRMS in the Monthly Reports, which are also included in Appendix B of this report.

During 2022, BMRI managed the Rito Seco and West Pit alluvial hydrologic systems, in compliance with Technical Revision 26 (TR-26). BMRI measured the West Pit backfill monitoring wells weekly and the monthly average groundwater elevations were maintained below the TR-26 required level of 8,582 feet above mean sea level (amsl). The groundwater table elevations and potentiometric surface maps, developed by Engineering Analytics, Inc., confirm the groundwater flow gradient was from the Rito Seco alluvium to the West Pit backfill during 2022. The groundwater elevations and potentiometric surface maps were previously submitted to CDPHE with the DMR's, BMP, and WET Testing Reports under permit number CO0045675 and are also included in Appendix C of this report. BMRI also performed monthly visual inspections for seepage in the historic seepage area along the Rito Seco Creek and no seeps were observed during 2022.

Additionally, the two groundwater capture wells, M-32 and M-33, were operated in conjunction with other groundwater table elevation control in the West Pit during 2022. Groundwater elevations were maintained equal to or lower than 8,540 feet amsl in wells M-32 and M-33, as required under TR-26. These elevations were also previously submitted to CDPHE with the DMR's, BMP, and WET Testing Reports under permit number CO0045675 and are also included in Appendix C of this report. Groundwater pumped from these wells was either treated at the West Pit Water Treatment Plant and discharged to the Rito Seco under the BMRI discharge permit, or pumped to the LTF for water management. In 2022, the West Pit water treatment plant treated and discharged a total of 92,981,900 gallons of water to the Rito Seco Creek. Additionally, a total of 5,126,900 gallons of water was transferred from the West Pit to the LTF.

There was one Technical Revision in 2022, TR-36. This technical revision was approved via email from Luas West of CDRMS on September 13, 2022. TR-36 requested permission to replace

Pond 2 and Pond 3 liners from HDPE to concrete.

Should additional information be required or if any clarifications are necessary, please contact me at (719) 379-0538.

Julto t

Julio Madrid

Sr. Supervisor Legacy Sites Closure and Reclamation

Cc: Devon Horntvedt (electronic) Lawrence Fiske, BMRI (electronic) Melissa Chalona, Engineering Analytics BMRI File

Enclosures:

Appendix A – Dam Inspection Reports Appendix B – Monthly Reports and Monthly and Quarterly Sampling Results Appendix C – DMR's, BMP, and WET Testing Reports Appendix D – Report Request Appendix E – 2022 Site Map APPENDIX A DAM INSPECTION REPORTS



BATTLE MOUNTAIN RESOURCES, INC.

April 13, 2022

Mr. Lucas West Colorado Division of Reclamation, Mining and Safety 1313 Sherman Street, Room 215 Denver, CO 80203 RECEIVED APR 19 2022 DIVISION OF RECLAMATION, MINING & SAFETY-MINERALS

Re: San Luis Project Tailing Dam Q1 2022 Inspection Report, Technical Revision No. 33, Permit No. M-1988-112

Dear Mr. West:

Battle Mountain Resources Inc. (BMRI) is pleased to provide the Q1 2022 San Luis Tailing Dam Inspection Report in accordance with Technical Revision No. 33 to BMRI's Reclamation Permit.

The Inspection was conducted by BMRI Site Manager Mr. David Carino and Operator Mr. Aaron Taylor.

Enclosed with the inspection report are photos of the Tailing Impoundment facilities to include the drop structure and the under-drain discharge area. Also included are the Q1 2022 Piezometer Inspection results.

Respectfully

Julio F. Madrid Sr. Supervisor Colorado Legacy Sites (719) 379-0538

cc: Devon Horntvedt

David Carino

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	OUA	OUARTERLY INSPECTION SUMMARY	
NIME OF DAM:	s Project Tailing Dam	CO DRMS Permit # M-1988-112	
REPORTING PERIOD: 1/22	thru	REPORT #:	
INSPECTION ITEMS			PHOTOS
Pizometer Levels	Included in report.		No
Drain-Collection and Pumpback System Othervations	System working properly	perly	Yes
Sepage/Erosion Obtervations	Minor erosion on N	minor erosion on North groin area (down stream)	Yes
Vetetation/Rodent/ Otter Maintenance Observations	None		NO
Diversion System Observations	Channel in good cor	good condition, No Issues	yes
	REC	RECOMMENDATIONS/COMMENTS	
Javid 5 Carine Julio Madrid	BMRT / K	INSPECTION AND REPORTING PERSONNEL ITTLE/ROLE PRESENTING SIFE Manager ENANOLE SUPERVISON	

Monthly Piezometer Elevations

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Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	01/31/2022	72.46	DRY	N/A
P 7	01/31/2022	92.50	92.29	0.21
P8	01/31/2022	97.51	96.58	0.93
P9	01/31/2022	72.30	71.93	0.37
P10	01/31/2022	58.30	57.51	0.79
P11	01/31/2022	41.80	41.40	0.40
P12	01/31/2022	41.71	41.65	0.06
P13	01/31/2022	41.34	41.02	0.32
P14	01/31/2022	41.24	DRY	N/A
P15	01/31/2022	41.10	40.87	0.23

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	02/28/2022	72.46	DRY	N/A
P7	02/28/2022	92.50	92.27	0.23
P8	02/28/2022	97.51	96.58	0.93
P9	02/28/2022	72.30	71.92	0.38
P10	02/28/2022	58.30	57.46	0.84
P11	02/28/2022	41.80	41.41	0.39
P12	02/28/2022	41.71	41.65	0.06
P13	02/28/2022	41.34	41.02	0.32
P14	02/28/2022	41.24	DRY	N/A
P15	02/28/2022	41.10	40.86	0.24

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	03/31/2022	72.46	DŔY	N/A
P7	03/31/2022	92.50	92.29	0.21
P8	03/31/2022	97.51	96.58	0.93
P9	03/31/2022	72.30	71.92	0.38
P10	03/31/2022	58.30	57.48	0.82
P11	03/31/2022	41.80	41.41	0.39
P12	03/31/2022	41.71	41.65	0.06
P13	03/31/2022	41.34	41.01	0.33
P14	03/31/2022	41.24	DRY	N/A
P15	03/31/2022	41.10	40.87	0.25

































August 5, 2022

Mr. Lucas West Colorado Division of Reclamation, Mining and Safety 1313 Sherman Street, Room 215 Denver, CO 80203

RE: San Luis Project Tailings Dam 2022 Annual Inspection Report Technical Revision No. 33 Permit No. M-1988-112

Dear Mr. West:

Battle Mountain Resources Inc. (BMRI) is pleased to provide the 2022 Annual San Luis Tailings Dam Inspection Report in accordance with Technical Revision No. 33 to BMRI's Reclamation Permit. The inspection was conducted by Mark S. Abshire, PE of Engineering Analytics, Inc., and BMRI Site Manager David Carino. Enclosed with the inspection report are photos of the tailings impoundment facilities, including the drop structure and the underdrain discharge area.

Please let me know if you have any questions.

Respectfully,

Julio F. Madrid Senior Supervisor Colorado Legacy Sites

- Cc: David Carino Devon Horntvedt Karen De Aguero Jonathan Gillen
- Enclosures: 2022 Annual Dam Safety Inspection Report: San Luis Tailings Dam, CDRMS Permit No. M-1988-112 File Name: San Luis TSF_2022 Annual Dam Safety Inspection Report.pdf

August 5, 2022

Project No. 2101.05.15

Mr. David Carino Battle Mountain Resources, Inc. P.O. Box 310 San Luis, CO 81152-0310

RE: 2022 Annual Dam Safety Inspection Report San Luis Tailings Dam CDRMS Permit No. M-1988-112

Dear Mr. Carino,

At your request, Engineering Analytics, Inc. (EA) conducted the 2022 annual dam safety inspection for the San Luis Tailings Dam. The inspection was conducted on June 14 by Mark S. Abshire, P.E., in conformance with the Tailing Dam Safety Inspection and Reporting Program prepared by Miller Geotechnical Consultants, Inc. (MGC), dated March 12, 2013. Also present were Jonathan Gillen, PE and Karen De Aguero (Newmont), yourself and Julio Madrid (BMRI).

EA's inspection included review of the following historical project documents:

- San Luis Project Tailing Dam Detailed Inspection Report (MGC, February 2014)
- 2015 Annual Inspection Report (MGC, June 10, 2015)
- 2016 Annual Inspection Report (MGC, July 6, 2016)
- 2017 Annual Inspection Report (EA, August 18, 2017)
- 2018 Annual Inspection Report (MGC, August 7, 2018)
- 2019 Annual Inspection Report (MGC, July 3, 2019)
- 2020 Annual Inspection Report (MGC, September 25, 2020)
- 2021 Annual Inspection Report (EA, August 24, 2021).

An overall site plan of the San Luis TSF is presented on Figure 1. Specific inspection results are detailed on the Tailing Dam Inspection Form (Attachment 1), and findings are presented on Figure 2. Figures 3 and 4 present piezometer levels and underdrain flow measurements, respectively. Photographs taken during the inspection are included as Attachment 2.

PREVIOUS FINDINGS

The primary issues identified in the 2021 annual inspection included minor surface erosion on the downstream dam slope, the potential for surface erosion in disturbed areas around the South Diversion Ditch Drop Structure (construction completed in 2019), and the ongoing need for maintenance around the underdrain outfall to reduce ponding of surface water in that area.

Additionally, it was recommended that BMRI consider installing a concrete structure for collecting underdrain flows from the toe drains to facilitate maintenance in the toe drain area, improve conditions for monitoring and inspecting the drain system, and to prevent the attraction of animals to the area by pooling of leakage from the drain pipes.

INSTRUMENTATION

Piezometers: Piezometer readings from March 2021 through March 2022 are shown in Table 1, and readings from July 2020 through March 2022 are presented graphically on Figure 3. The piezometers all indicate dry conditions or minor amounts of water present at the bottom of the casings due to moisture condensation. This behavior is consistent with historic observations and indicates that the sub-drains are functioning, and low phreatic conditions are maintained within the dam embankment. No abnormalities are indicated in the measurements.

PIEZOMETER ID TOTAL DEPTH (ft)*	P6 72.46	P7 92.50	P8 97.51	P9 72.30	P10 58.30	P11 41.80	P12 41.71	P13 41.34	P14 41.24	P15 41.10
3/31/2021	72.46	92.28	96.61	71.91	57.61	41.40	41.67	41.02	41.24	40.86
4/29/2021	72.46	92.28	96.63	71.91	57.62	41.40	41.66	41.02	41.24	40.85
5/27/2021	72.46	92.28	96.60	71.91	57.61	41.40	41.66	41.02	41.24	40.86
6/30/2021	72.46	92.27	96.59	71.91	57.61	41.40	41.67	41.03	41.24	40.86
7/29/2021	72.46	92.27	96.58	71.91	57.61	41.40	41.67	41.03	41.24	40.87
8/31/2021	72.46	92.28	96.57	71.91	57.60	41.40	41.67	41.02	41.24	40.87
9/30/2021	72.46	92.27	96.57	71.91	57.61	41.41	41.67	41.02	41.24	40.87
11/30/2021	72.46	92.27	96.57	71.91	57.61	41.40	41.67	41.02	41.24	40.87
12/30/2021	72.46	92.29	96.58	71.92	57.58	41.40	41.66	41.02	41.24	40.87
1/31/2022	72.46	92.29	96.58	71.93	57.51	41.40	41.65	41.02	41.24	40.87
2/28/2022	72.46	92.27	96.58	71.92	57.46	41.41	41.65	41.02	41.24	40.86
3/31/2022	72.46	92.29	96.58	71.92	57.48	41.41	41.65	41.01	41.24	40.87

 Table 1 San Luis TSF Piezometer Levels: March 2021 - March 2022

* Piezometer total depths measured from top of casing

Underdrain: Underdrain flow rates discharging to the seepage collection pond from March 2021 through March 2022 are shown in Table 2, and flow rates from 2016 to 2022 are presented graphically on Figure 4. Average underdrain flow measurements from 2019-21 (30.8 gpm) are slightly lower than from 2016-2022 (34.5 gpm).

The underdrain pipes were jet-cleaned in 2014 in conjunction with the first camera inspection of the accessible downstream ends of the pipes. A second video inspection of the pipe ends was done without jet cleaning in 2018. The 2018 videos showed some accumulation of sediment and precipitates in the pipes compared to the 2014 videos, but the pipes were all still flowing (not clogged). Thus, the observed slight reduction in underdrain flow in recent years is likely due to ongoing severe regional drought. The pipes were jet-cleaned again on October 5, 2020, with no video inspection. It is recommended that jetting of the pipes and video inspections be conducted

at least every 3 years unless a change in measured drainage flow rates warrants more frequent cleaning and inspection.

Date	Flow (gpm)
3/31/2021	30.5
4/29/2021	31.0
5/27/2021	31.0
6/30/2021	32.0
7/29/2021	32.0
8/31/2021	31.0
9/30/2021	31.0
11/30/2021	32.0
12/30/2021	32.0
1/31/2022	31.5
2/28/2022	31.5
3/31/2022	31.0

Table 2 San Luis TSF Underdrain Flow Measurements: March 2021 - March 2022

2022 INSPECTION FINDINGS

The overall surficial conditions of the tailings dam at the time of the inspection were generally satisfactory, except for minor issues discussed in more detail below.

Right Downstream Groin: Revegetation in this area following repairs continues to improve. This area and also the cross-berms and rock-lined down-drains should be monitored closely to make sure erosion does not progress to detrimental levels.

South Diversion Ditch Drop Structure: Disturbed areas adjacent to the drop structure that are not protected by riprap were seeded in 2019. However, vegetation establishment is poor to date due to extended drought conditions, and erosional rilling is progressing in these areas. The condition is presently judged to be minor; however, erosion will progress in the absence of vegetation, and mitigation will likely be required in 2023. Mitigation will entail repair of eroded areas and reseeding all slopes, followed by installation of erosion control blankets and/or cutting in shallow swales along the slopes to reduce runoff flow path lengths. EA is available to assist BMRI with developing mitigation plans for these areas.

Seepage Underdrain Collection System: Continue the jetting and video inspection program to ensure the drain pipes do not become clogged. Consider installing a concrete structure for collecting underdrain flows from the toe drains to facilitate maintenance in the toe drain area, improve conditions for monitoring and inspecting the drain system, and to prevent the attraction of animals to the area by pooling of leakage from the drain pipes.

Choked Runoff Diversion Ditch Culvert: Clear toe runoff channel culvert immediately south of toe drain outfall pipe

CONCLUSIONS

Based on the observations described above, the overall surficial condition of the dam is judged to be 'Conditionally Satisfactory' at this time. Please don't hesitate to call should you have questions or concerns regarding this inspection report.

Respectfully Submitted,



Mark S. Abshire, P.E. Senior Geotechnical Engineer

FIGURES

- Figure 1 Overall Site Plan
- Figure 2 2022 Annual Dam Safety Inspection
- Figure 3 Piezometer Levels
- Figure 4 Underdrain Flow



0:\.05 San Luis\.13 Spillway\Site General Photos.dwg SAVED:8/24/21 PRINTED:8/5/22



0:\.05 San Luis\.13 Spillway\Site General Photos.dwg SAVED:8/24/21 PRINTED:8/5/22



Project No. 210105.13



FIGURE 3 PIEZOMETER LEVELS 2022 ANNUAL DAM SAFETY INSPECTION SAN LUIS TAILINGS STORAGE FACILITY

August 2022



Project No. 210105.13

Engineering Analytics, Inc.

FIGURE 4 UNDERDRAIN FLOW 2022 ANNUAL DAM SAFETY INSPECTION SAN LUIS TAILINGS STORAGE FACILITY

August 2022
ATTACHMENT 1 SAN LUIS TAILINGS DAM 2022 ANNUAL DAM SAFETY INSPECTION FORM JUNE 14, 2022 INSPECTION

DAM NAME: San Luis Tailings Dam

TAILINGS DAM INSPECTION FORM

Name of Professional Con	ducting Inspe	ection:				Colorado P.E 33319	E. License No.:
Mark S. Abshire, PE						33319	
Company Name and Addre Engineering Analytics, Inc					Phone Nos.: 970-488-31	11 (Office)	
1600 Specht Point Road,					970-488-31		
Fort Collins, Colorado 80						shire@engana	alytics.com
INSPECTION PREPARAT	ION: I have r	eviewed all per	tinent tech	nnical documenta	tion related to	this dam and	site in the Owner's files:
🛛 Yes 🗌 No	Comment:						
STATEMENT OF EXPERIE	ENCE: lame	xperienced in th	ne technic:	al disciplines or l a	m working wit	h other profes	sionals experienced in
the technical disciplines to	properly insp	pect this dam a	nd appurt	enant works. Teo	hnical discipli	nes in additio	n to general civil
engineering may include ge	eotechnical, g	geological, hydr	ologic, hy	draulics, and strue	ctural		
\boxtimes Yes \square No Comment:							
YR COMPL	Т	R	Sec	COUNTY	DATE OF INS		
1993 Ph II, Raise 1		Applicable-		Costilla	June 14, 202	22	
1995 Ph II, Raise 2	_	e Cristo Land					
DAM HEIGHT (FT) ~ 155	DAM LENGT ~ 1,900	H (FT)		/IDTH (FT)	PREVIOUS IN	SPECTION:	
~ 155	~ 1,900		~25		June 8, 2021		
FREEBOARD (FT)	DRAINAGE A	AREA (AC)	CREST EL	EV (FT)	NORMAL ST	ORAGE (AF)	POOL SURFACE AREA (AC)
~ 12	741 total		~ 8620	()	1,105 at dam		136.7 at dam crest
	537 diverted						500
BEACH LENGTH ABOVE POO	OL(FT): ~600			DIVERSION CH	-	()	
OWNER: Battle Mountain Resource	es Inc				OWNER REF David Carino	PRESENTATIVE	E/CONTACT:
	55, 110.				_		
OWNER ADDRESS: P.O. Box 310						ITACT PHONE	
San Luis, Colorado 81152					119-319-002	7 (water treatn	nent plant)
	-						
FIELD CONDITIONS	WATER LEV	EL BELOW DAN	CREST:	12+ F1	Г		
OBSERVED	GROUNDM	DISTURE CONI	DITION:	🛛 DRY	□WET	SNOWC	OVER 🗆 OTHER
[Directions:	Mark and X fo	or conditi	ons found and ι	underline wo	rds that appl	ly
		UPSTR	EAM SL	OPE AND IMP	OUNDMENT	AREA	
PROBLEMSNOTED:							
⊠ (0)NONE		\Box (1) ERO	SION PROT	ECTION - Missing/	Sparse (2)	BEACH AREA	WAVE EROSION
□ (3)CRACKS WITH DISPL		□ (4)SIN		5	• • • • •	APPEARS TOO	
		()			()		
	ULGES	□ (7)SLI	DES		□ (8)	ANIMAL BURI	RUWS
(9) OTHER							
CONDITIONS C	DBSERVED	: 🛛 🖾 G	OOD		EPTABLE		POOR
				CREST			
PROBLEMS NOTED:							
⊠ (10) NONE		🗆 (11) RƯ	TSOR PUI	DDLES	□ (12	EROSION	
□ (13)CRACKS WITH DISPI		□ (14) SIN) NOT WIDE E	
		. ,					
🗆 (16) LOW AREA		🗆 (17) MIS	SALIGNM	ENI	□ (18)	IMPROPER S	SURFACE DRAINAGE
□ (19) OTHER							
CONDITIONS OBSERV	'ED:	SOOD			E		
			DOWNS	TREAM SLOPE			
PROBLEMS NOTED:							
🖾 (20) NONE		🗆 (21) LIV	ESTOCK	DAMAGE	□ (22) EROSION OF	R GULLIES (R DS Groin)
(23) CRACKS WITH		🗌 (24) SI	NKHOLE		□ (25) APPEARS	TOO STEEP
□ (26) DEPRESSIONS OR B	ULGES	□ (27) SLI) SOFT AREAS	
(29) OTHER		· · /			, -		
					-		
CONDITIONS OBSERV	ED:	SOOD 🛛			E		

TAILINGS DAM INSPECTION FORM

Directions: Mark and	X for condition	is found and underline wo	rds that apply
s	EEPAGE AND	DRAIN OUTFALL	
PROBLEMS NOTED:			
□ (30) NONE	🗆 (31) SATU	JRATEDEMBANKMENT ARE/	A 🗆 (32) SEEPAGE EXITS ON DAM
\Box (33) SEEPAGE EXITS ATPOINT SOURCE	⊠ (34) MINO ATTOE	R PONDING OF PIPE LEAKAG	θE
DRAIN OUTFALLSEEN: 🛛 YES 🗆 NO			
\Box (35) FLOW ADJACENT TO DRAIN PIPE	🗆 (36) DRAI	NOUTFLOW TURBID	\Box (37) DRAIN DRY/OBSTRUCTED
□ (38) OTHER			
SHOW LOCATION OF DRAIN ON SKETCH AND INDICATE AMOUNT AND QUALITY OF SEEPAGE	See Figure 1 Minor leakage fror	n toe drain creates puddle, attracti	ng animals, but no pipe damage.
CONDITIONS OBSERVED:		⊠ ACCEPTABLE	
STO	RMWATER MA	NAGEMENT SYSTEM	
PROBLEMS NOTED:			
□ (40) NONE	🗆 (41) NO EI	MERGENCY SPILLWAY	☑ (42) EROSION AT DROP STRUCTURE
□ (43) CONCRETE DETERIORATED/UNDERMINED) 🗆 (45) STRL	ICTURE MAY BE TOO SMALL	
□ (46) DIVERSION CHANNEL EROSION			Y ⊠ (48) CHANNEL FLOW OBSTRUCTED
☑ (49) OTHER Rilling along both sides of drop structure			
South diversion channel and downstream toe runoff drain (Photo 22). Continue monitoring erosion and 2023.	revegetation at bo	oth side of the drop structure; n	nitigation will likely be required in
CONDITIONS OBSERVED:		ACCEPTABLE	
	MON	TORING	
EXISTING INSTRUMENTATION FOUND:			
□ (50) NONE	🗆 (51) GAGE F	ROD IN POOL AREA	⋈ (52) PIEZOMETERS
□ (53) SEEPAGE WEIRS/FLUMES	□ (54) SURVE	Y MONUMENTS	oxtimes (55) OTHER Underdrain flow
MONITORING OF INSTRUMENTATION:			
□ (56) NO WEIRS/FLUMES	🖾 (57) YES		
PERIODIC INSPECTIONS BY:			
⊠ (58) OWNER	□ (59)ENGINE	ER	
Piezometers remain dry. Average underdrain flow mea (34.5 gpm). Reduction is likely due to ongoing severe			
CONDITIONS OBSERVED:	🛛 GOOD		
	MAINTENANC	E AND REPAIRS	
PROBLEMSNOTED:			
□ (60) NONE	□ (61) ACCESS	ROAD NEEDS MAINTENANCI	E 🗆 (62) CATTLE DAMAGE
□ (63) BRUSH ON: UPSTREAM SLOPE/BEACH, CR	EST, DOWNSTRE	EAM SLOPE, TOE	
(64) RODENT ACTIVITY ON: UPSTREAM SLOPE	BEACH, CREST,	DOWNSTREAM SLOPE, TOE	
☑ (65) OTHER #48: Clear toe runoff channel culve #49: Disturbed areas adjacent to the South Diversio drought conditions vegetation establishment is poor mitigation will likely be required in 2023.	n Ditch Drop Stru	cture that are not protected by	
CONDITIONS OBSERVED:	GOOD	⊠ ACCEPTABLE	D POOR
	OVERALL	CONDITIONS	

□ SATISFACTORY

☑ CONDITIONALLY SATISFACTORY

TAILING DAM	INSPECTION FORM
	ITEMS REQUIRING ACTION BY OWNER TO IMPROVE THE SAFETY OF THE DAM
	MINOR REPAIR MONITORING DDITIONAL EROSION PROTECTION:
C (2) CLEAR BRU	SH FROM:
🗆 (3) INITIATE RO	DENT CONTROL PROGRAM AND PROPERLY BACKFILL EXISTING HOLES:
CI (4) GRADE CRE	ST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE:
🗇 (5) PROVIDE SU	JRFACE DRAINAGE FOR:
⊠ (6) MONITOR:	Continue monitoring rilling and gullying at right downstream groin.
図 (7) MONITOR:	Continue underdrain jetting cleanout and camera inspection of accessible lengths of underdrain pipes.
Ø (8) MONITOR:	Per Item 49, continue monitoring erosion along the side slopes of the drop structure, and begin preparing mitigation plans for 2023. Mitigation will require erosion repair, followed by reseeding and installation of erosion control blankets, and/or cutting in shallow swales along the slope to reduce runoff flow path lengths.
(9) OTHER:	Protect toe drain area from disturbance by cattle.
⊠ (10) OTHER:	Per 2020 inspection, consider installing a concrete structure for collection of drain discharges to facilitate access for cleanout and monitoring of the drains.
	EMPLOY AN ENGINEER EXPERIENCED IN DESIGN AND CONSTRUCTION OF DAMS TO:
(Plans and specif	fications to be improved by CDRMS prior to construction.)
(11) PREPARE I	PLANS AND SPECIFICATIONS FOR REHABILITATION OF THE DAM;
(12) PREPARE /	AS-BUILT DRAWINGS OF:
(13) PERFORM	A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM:
(14) PERFORM	A HYDROLOGIC STUDY TO DETERMINE REQUIRED SIZE OF FLOOD BYPASS/SPILLWAY:
🗆 (15) PREPARE I	PLANS AND SPECIFICATIONS FOR AN ADEQUATE SPILLWAY:
🗆 (16) SET UP OI	R IMPROVE MONITORING SYSTEM:
(17) OTHER:	
(18) OTHER:	
Figure 2 2022 And Figure 3 Piezome Figure 4 Underdra	
	ohs (Photos 1-22)
	TRUCTION: Instructed owner on the series demonstrations with the structure and how to monitor and inspect the dam and s in the interim period between the regulatory and inspections. So Yes So No
Comment:	3 11 He Meshin pendo bonees new regnatory and an specific. Es res El No 33319
Professional Engin	eer's Signature: Date: 8 5/2022
Reviewed by: Own	eer's Signature: Date: 8/5/2022 Date: 8.5.2022

Page 3 of 4

G	UIDELINES FOR DETERMINING	CONDITIONS
CONDITIONS OB	SERVED - APPLIES TO UPSTREAM SLOP	E, CREST, DOWNSTREAM SLOPE
GOOD In general, this part of the structure has a good appearance, and conditions observed in this area do not appear to threaten the safety of the dam.	ACCEPTABLE Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.	<u>POOR</u> Conditions observed in this area appear to threaten the safety of the dam.
	CONDITIONS OBSERVED - APPLIES T	O SEEPAGE
GOOD No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions did not appear to threaten the safety of the dam.	ACCEPTABLE Some seepage exists at areas other than the drain outfalls, or other designed drams. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam.	POOR Seepage conditions observed appear to threaten the safety of the dam. Examples: 1) Designed drain or seepage flows have increased without increases in pool level. 2) Drain or seepage flows contain sediment, i.e., muddy water or particles in Jar samples. 3) Widespread seepage, concentrated seepage, or ponding appears to threaten the safety of the dam.
	CONDITIONS OBSERVED - APPLIES TO	MONITORING
GOOD Monitoring includes movement surveys, leakage measurements, and piezometer readings. Instrumentation is in reliable, working condition. A plan for monitoring the instrumentation and analyzing results by the owner's engineer is in effect. Periodic inspections by Owner's engineer.	ACCEPTABLE Monitoringincludes movement surveys and leakage measurements. Instrumentation is in serviceable condition. A plan for monitoring instrumentation is in effect by owner. Periodic inspections by Owner or representative.	<u>POOR</u> Instrumentation and monitoring described under "ACCEPTABLE" here are not provided, or required periodic readings are not being made, or unexplained changes in readings are not reacted to by Owner.
	ITIONS OBSERVED - APPLIES TO MAINTE	NANCE AND REPAIR
GOOD Dam appears to receive effective on-going maintenance and repair, and only a few minor items may need to be addressed.	ACCEPTABLE Dam appears to receive maintenance, but some maintenance items need to be addressed. No major repairs are required.	<u>POOR</u> Dam does not appear to receive adequate maintenance. One or more items needing maintenance or repair has begun to threaten the safety of the dam.
	OVERALL CONDITIONS	
SATISFACTORY The safety inspection indicates no conditions that appear to threaten the safety of the dam, and the dam is expected to perform satisfactorily under all design loading conditions. Most of the required monitoring is being performed.	CONDITIONALLY SATISFACTORY The safety inspection indicates symptoms of structural distress (seepage, evidence of minor displacements, etc.) which, if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection, and maintenance must be performed as a requirement for continued full storage in the impoundment area.	UNSATISFACTORY The safety inspection indicates definite signs of structural distress (excessive seepage, cracks, slides, sinkholes, severe deterioration, etc.), which could lead to the failure of the dam if the reservoir is used to full capacity. The dam is judged unsafe for full storage of water.

ATTACHMENT 2 SAN LUIS TAILINGS STORAGE FACILITY 2022 ANNUAL DAM SAFETY INSPECTION JUNE 14, 2022 INSPECTION PHOTOS



Photo 1 Looking east along the access road from the north (right) end of the dam, showing good conditions of the impoundment. Note the pool at the upper right, which is within normal limits.



Photo 2 Looking south over the dam crest road and impoundment from the north (right) end of the dam, showing good conditions.



Photo 3 Looking east from the dam crest over the impoundment and toe drain collection pond pumpback line, showing good conditions.



Photo 4 Looking south over the water treatment plant discharge and pool, showing good conditions.



Photo 5 Looking east over the impoundment and south diversion channel from the south (left) end of the dam, showing good conditions.



Photo 6 Looking south over the perimeter road and impoundment from the northeast corner, showing good conditions.



Photo 7 Looking southwest over the impoundment from the northeast corner, showing good conditions.



Photo 8 Looking west over the perimeter road and impoundment from the northeast corner, showing good conditions.



Photo 9 Looking south along the dam crest, showing good conditions and straight alignment.



Photo 10 Looking south along the right downstream face and groin run-on diversion channel, showing good conditions.



Photo 11 Looking north over the downstream face and toe drain collection pond, showing good conditions.



Photo 12 Looking northeast up the downstream face from near the toe drain discharge point, showing good conditions.



Photo 13 Looking southwest over the right downstream groin, showing significantly improved revegetation conditions following 2013/2014 erosion repairs. Note the seepage collection pond in the background.



Photo 14 Looking northeast over the right downstream groin and rock drop channel, showing good conditions.



Photo 15 Looking north along the right downstream toe and toe drain outlet pipes, showing clear seepage and good conditions.



Photo 16 Closeup of toe drain outlet pipes, showing clear seepage and good conditions.



Photo 17 Looking west (downstream) into the drop structure from near the top, showing good conditions.



Photo 18 Looking east (upstream) into the drop structure from the bottom, showing good conditions.



Photo 18 Looking west across the outlet of the drop structure, showing good conditions.



Photo 20 Looking east at the slope on the north side of the drop structure, showing generally good conditions at present. Erosional rilling is progressing due to long drainage runs and the lack of vegetation.



Photo 21 Looking northeast along the right downstream groin run-on diversion channel, showing good conditions.



Photo 22 Looking south along the lower runoff collection swale along the left downstream dam toe, showing good conditions of the liner and channel, but near full choking of the culvert immediately south of the toe drain discharge pipes.



BATTLE MOUNTAIN RESOURCES, INC.

October 14, 2022

RECEIVED

OCT 2 1 2022

Mr. Lucas West

Colorado Division of Reclamation, Mining and Safety

1313 Sherman Street, Room 215

Denver, CO 80203

DIVISION OF RECLAMATION, MINING & SAFETY-MINERALS

Re: San Luis Project Tailing Dam Q3 2022 Inspection Report, Technical Revision No. 33, Permit No. M-1988-112

Dear Mr. West:

Battle Mountain Resources Inc. (BMRI) is pleased to provide the Q3 2022 San Luis Tailing Dam Inspection Report in accordance with Technical Revision No. 33 to BMRI's Reclamation Permit.

The Inspection was conducted by BMRI Site Manager Mr. David Carino and Site Supervisor Julio Madrid.

Enclosed with the inspection report are photos of the Tailing Impoundment facilities to include the drop structure and the under-drain discharge area. Also included are the Q3 2022 Piezometer Inspection results.

Respectfully,

Julio F. Madrid Sr. Supervisor Colorado Legacy Sites

(719) 379-0538

cc: Devon Horntvedt

David Carino

2022 Q3 Piezometer Results

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	07/28/2022	72.46	DRY	N/A
P7	07/28/2022	92.50	92.30	0.20
P8	07/28/2022	97.51	96.65	0.86
P9	07/28/2022	72.30	71.94	0.36
P10	07/28/2022	58.30	57.49	0.81
P11	07/28/2022	41.80	41.41	0.39
P12	07/28/2022	41.71	41.65	0.06
P13	07/28/2022	41.34	41.01	0.33
P14	07/28/2022	41.24	DRY	N/A
P15	07/28/2022	41.10	40.87	0.23
Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	08/31/2022	72.46	DRY	N/A
P7	08/31/2022	92.50	DRY	N/A
<u>P8</u>	08/31/2022	97.51	96.65	0.86
P9	08/31/2022	72.30	71.93	0.37
P10	08/31/2022	58.30	57.49	0.81
P11	08/31/2022	41.80	41.40	0.40
P12	08/31/2022	41.71	41.65	0.06
P13	08/31/2022	41.34	41.00	0.34
P14	08/31/2022	41.24	DRY	N/A
P15	08/31/2022	41.10	40.86	0.24
Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	09/29/2022	72.46	DRY	N/A
P7	09/29/2022	92.50	DRY	N/A
P8	09/29/2022	97.51	96.65	0.86
P9	09/29/2022	72.30	71.93	0.37
P10	09/29/2022	58.30	57.48	0.82
P11	09/29/2022	41.80	41.40	0.40
P12	09/29/2022	41.71	41.64	0.07
P13	09/29/2022	41.34	41.00	0.34
P14	09/29/2022	41.24	DRY	N/A
P15	09/29/2022	41.10	40.85	0.25

			ADDITIONAL COMMENTS (REFER TO ITEM NO IE ADDI ICADI E).	DITIONAL COMMI
				30
		<		29
		5		Γ
		5	ANY DEBRIS IN CHANNELS OR DROP STRUCTURE?	CHANNEL AND 27
		5	NEED VEGETATION CONTROL?	DIVERSION 26
		<		Τ
				24
				T
	hid diner show with		ANY PROBLEMS WITH COLLECTION POND?	Š
	low have a man			AND 21
		$\overline{\mathbf{v}}$	<u> </u>	Ż
			IS DRAIN OUTLET CLOGGED OR OBSTRUCTED?	SEEPAGE 19
				18
	7.017 21 20			
×	CICZICI NOTINSI	1	16 ANY UNUSUAL BULGING OR SLOPE MOVEMENT?	
	miner emeren alata : la		15 ANY EROSION?	Γ
		5		DOWNSTREAM
		۲	13 ANY SLIDES, SLOUGHS, SCARPS?	1.
		<	1	1
-+-				
		<	10 NEED VEGETATION CONTROL?	Г
		4	9 CHANGES AT ABUTMENT CONTACTS?	BEACH AREA
		\langle	8 ANY EROSION ?	SLOPE &
		<	Ĺ	
		<	6 ANY SLIDES, SLOUGHS, SCARPS?	1
-+		5	Ľ	
		<	4 ANY HORIZONTAL OFFSET7	Ţ
		<	3 ANY RUTS OR PUDDLES?	CREST
		<	2 ANY UNUSUAL LOW AREAS?	
		<		, , 1
MONITOR INVESTI- GATE	OBSERVATIONS	NO NO		AREA
CHECK ACTION				
	David Carine	INSPECTOR:	DAM SAN ING DOD IEOT TAN ING DAM	DAM
2027 page 1/1	July, thru ser tenber	PERIOD:	INSPECTION PERIOD:	

	site supervisor	BMRI (Newmont BMRI / Newmont	Julio Madid
		+	NAME
		INSPECTION AND REPORTING PERSONNEL	
	NS/COMMENTS	RECOMMENDATIONS/COMMENTS	
yes	on, No issues	Channel in good condition, No issues	Diversion System
No		None	Vesetation/Rodent/ Other Maintenance Observations
yes	in area (down stream)	minor crossion on North grain area (down	Setpage/Erosion
Yes		System working properly	Pumpback System
NO		Included in report	Pizzometer Levels
PHOTOS			INSPECTION ITEMS
	CO DRMS Permit #: M-1988-112 REPORT #:	Project Tailing Dam thru 9/22	NME OF DAM: San Luis

.































BATTLE MOUNTAIN RESOURCES, INC.

CELED

JAN 132023

DIVISION OF RECLAMATION MINING AND SAFETY

January 10, 2023

Mr. Lucas West Colorado Division of Reclamation, Mining and Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: San Luis Project Tailing Dam Q4 2022 Inspection Report, Technical Revision No. 33, Permit No. M-1988-112

Dear Mr. West:

Battle Mountain Resources Inc. (BMRI) is pleased to provide the Q4 2022 San Luis Tailing Dam Inspection Report in accordance with Technical Revision No. 33 to BMRI's Reclamation Permit.

The Inspection was conducted by BMRI Site Manager Mr. David Carino and Site Supervisor Julio Madrid.

Enclosed with the inspection report are photos of the Tailing Impoundment facilities to include the drop structure and the under-drain discharge area. Also included are the Q4 2022 Piezometer Inspection results.

Respectfully o F. Madrid

Sr. Supervisor Colorado Legacy Sites

(719) 379-0538

cc: Devon Horntvedt

David Carino
					1/1 0000
			INSPECTOR:	DR. Marinel C. Arminel	
DAN	A: SAN I	DAM: SAN LUIS PROJECT TAILING DAM			CHECK ACTION NEEDED
AREA INSPECTED	ЦЕМ ИО.	CONDITION	YES NO	OBSERVATIONS	MONITOR INVESTI- BATE AIAPAR
i i	-	ANY SURFACE CRACKING?	>		
	~	ANY UNUSUAL LOW AREAS?			
CREST	0	ANY RUTS OR PUDDLES?			
	4	ANY HORIZONTAL OFFSET?			
	വ്	NEED VEGETATION CONTROL?			
	ഗ	ANY SLIDES, SLOUGHS, SCARPS?	1)		
UPSTRFAM	~	ANY SINKHOLES OR UNUSUAL DEPRESSIONS?			
SLOPE &	ω	ANY EROSION ?	>		
BEACH AREA	ດ	CHANGES AT ABUTMENT CONTACTS?	>		
	9	NEED VEGETATION CONTROL?	2		
	£				
	5	ANY WET AREAS?			
	с	ANY SLIDES, SLOUGHS, SCARPS?			
DOWNSTREAM		CHANGES AT DAM-ABUTMENT CONTACT?			
SLOPE		ANY EROSION?		miner exercise that cide	
	16	ANY UNUSUAL BULGING OR SLOPE MOVEMENT?	>		
	12	NEED VEGETATION CONTROL?	>		
	18				
SEEPAGE	9	IS DRAIN OUTLET CLOGGED OR OBSTRUCTED?			
COLLECTION	, 20	ARE DRAIN FLOWS MUDDY OR TURBID?	>		
AND	5	IS EMBANKMENT WET AROUND DRAIN OUTLET?		minor lectice around violne V	X
PUMPBACK	22	ANY PROBLEMS WITH COLLECTION POND?	>		
SYSTEM	EZ Z	IS PUMPBACK SYSTEM WORKING PROPERLY?	Ζ		
	5				
- 1-	ŝ	ANY EKOSION?	>		
DIVERSION	Т	NEED VEGETATION CONTROL?	>		
CHANNEL AND	27	ANY DEBRIS IN CHANNELS OR DROP STRUCTURE?	7		
		ANY CRACKS OR DETERIORATION OF CONCRETE?	>		
	59	ANY CORROSION OF PIPE?	}		
	8		-		
DILIONAL COL	MMENT	AUDITIONAL COMMENTS (REFER TO ITEM NO. IF APPLICABLE):			
					,

C. S. S.

	OUAF	OUARTERLY INSPECTION SUMMARY	I SUMMARY	
I VIME OF DAM	San Luis Project Tailing Dam	CO DRMS Permit #: M-1988-112	M-1988-112	
R:PORTING PERIOD:	10/22 thru 12/22	REPORT #:		
INSPECTION ITEMS				PHOTOS
Pitzometer Levels	Included in report.	ert.		No
Drain Collection and Pumback System Observations	system working properly.	where y.		səh
S⇔page/Erosion Obtervations	Miner eresien on M	beth groin	Miner eresien an North grein area (down stream).	yes
Vetetation/Rodent/ Other Maintenance Observations	None			Хo
Div€rsion System Obs∋rvations	Channel in good Co	and ition,	good Condrition, No issues.	say
	RECI	RECOMMENDATIONS/COMMENTS	OMMENTS	
	INSPECTI	INSPECTION AND REPORTING PERSONNEL	G PERSONNEL	
NAME		NG	TITEROLE	
Julio Madri	d BURIT/ NEWMENT		site superviser	

,

Q4 2022 Piezometer Readings

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	10/31/2022	72.46	DŔY	N/A
P7	10/31/2022	92.50	DRY	N/A
P8	10/31/2022	97.51	96.64	0.87
P9	10/31/2022	72.30	71.92	0.38
P10	10/31/2022	58.30	57.48	0.82
P11	10/31/2022	41.80	41.39	0.41
P12	10/31/2022	41.71	41.65	0.06
P13	10/31/2022	41.34	41.00	0.34
P14	10/31/2022	41.24	DRY	N/A
P15	10/31/2022	41.10	40.86	0.24
Monitoring Well	Observation Date	Piezometer Depth	Depth to Water	Depth of Water
Identification		(ft)	(ft)	(ft)
P6	11/30/2022	72.46	DRY	N/A
P7	11/30/2022	92.50	DRY	N/A
P8	11/30/2022	97.51	96.68	0.83
P9	11/30/2022	72.30	71.94	0.36
P10	11/30/2022	58.30	57.47	0.83
P11	11/30/2022	41.80	41.40	0.40
P12	11/30/2022	41.71	41.64	0.07
P13	11/30/2022	41.34	40.99	0.35
P14	11/30/2022	41.24	DRY	N/A
P15	11/30/2022	41.10	40.85	0.25
Monitoring Well	Observation Date	Piezometer Depth	Depth to Water	Depth of Water
Identification		(ft)	(ft)	(ft)
P6	12/30/2022	72.46	DRY	N/A
P7	12/30/2022	92.50	DRY	N/A
P8	12/30/2022	97.51	96.67	0.84
P9	12/30/2022	72.30	71.94	0.36
P10	12/30/2022	58.30	57.48	0.82
P11	12/30/2022	41.80	41.40	0.40
P12	12/30/2022	41.71	41.65	0.06
P13	12/30/2022	41.34	41.00	0.34
P14	12/30/2022	41.24	DRY	N/A
P15	12/30/2022	41.10	40.85	0.25



Sent from my iPhone































APPENDIX B MONTHLY REPORTS & MONTHLY AND QUARTERLY SAMPLING RESULTS

Battle Mountain Resources, Inc. San Luis Project

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

February 9, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 January 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of January 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	01/31/2022	DRY
LS2R2	01/31/2022	DRY
LS3R	01/31/2022	DRY
LD1R2	01/31/2022	DRY
LD2R2	01/31/2022	DRY
LD3R	01/31/2022	DRY

Table 1 – Monthly Lysimeter Monitoring

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	01/31/2022	72.46	DRY	N/A
P7	01/31/2022	92.50	92.29	0.21
P8	01/31/2022	97.51	96.58	0.93
P9	01/31/2022	72.30	71.93	0.37
P10	01/31/2022	58.30	57.51	0.79
P11	01/31/2022	41.80	41.40	0.40
P12	01/31/2022	41.71	41.65	0.06
P13	01/31/2022	41.34	41.02	0.32
P14	01/31/2022	41.24	DRY	N/A
P15	01/31/2022	41.10	40.87	0.23

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected January 31, 2022 and 910 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected January 31, 2022 and the flow rate was measured to be approximately 28.4 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of January 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 6,593,500 gallons (20.2 acre-feet) of treated water was discharged to the Rito Seco and 287,600 gallons (0.88 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in January.

BMRI performed the monthly visual seepage expression inspections on January 31, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	01/31/2022	24.90
BF-5R	01/31/2022	30.83
BF-6	01/31/2022	30.96
M-6	01/31/2022	DRY
M-7	01/31/2022	DRY
M-8	01/31/2022	DRY
M-9	01/31/2022	141.21
M-10	01/31/2022	24.40
M-11R	01/31/2022	38.71
M-12	01/31/2022	174.30
M-13R	01/31/2022	125.51
M-14	01/31/2022	130.34
M-16	01/31/2022	23.80
M-17	01/31/2022	30.29

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	01/31/2022	26.53
M-19	01/31/2022	24.51
M-21	01/31/2022	18.79
M-22	01/31/2022	17.16
M-23	01/31/2022	43.15
M-24	01/31/2022	25.52
M-26	01/31/2022	14.39
M-31	01/31/2022	38.04
M-32	01/31/2022	46.44
M-33	01/31/2022	48.17
M-34	01/31/2022	19.88

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

March 8, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 February 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of February 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	02/28/2022	DRY
LS2R2	02/28/2022	DRY
LS3R	02/28/2022	DRY
LD1R2	02/28/2022	DRY
LD2R2	02/28/2022	DRY
LD3R	02/28/2022	DRY

Table 1 – Monthly Lysimeter Monitoring

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	02/28/2022	72.46	DRY	N/A
P7	02/28/2022	92.50	92.27	0.23
P8	02/28/2022	97.51	96.58	0.93
P9	02/28/2022	72.30	71.92	0.38
P10	02/28/2022	58.30	57.46	0.84
P11	02/28/2022	41.80	41.41	0.39
P12	02/28/2022	41.71	41.65	0.06
P13	02/28/2022	41.34	41.02	0.32
P14	02/28/2022	41.24	DRY	N/A
P15	02/28/2022	41.10	40.86	0.24

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected February 28, 2022 and 890 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected February 28, 2022 and the flow rate was measured to be approximately 31.5 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of February 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 5,892,400 gallons (18.1 acre-feet) of treated water was discharged to the Rito Seco and 345,100 gallons (1.06 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in February.

BMRI performed the monthly visual seepage expression inspections on February 28, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	02/28/2022	24.88
BF-5R	02/28/2022	30.80
BF-6	02/28/2022	30.95
M-6	02/28/2022	DRY
M-7	02/28/2022	DRY
M-8	02/28/2022	DRY
M-9	02/28/2022	141.59
M-10	02/28/2022	24.50
M-11R	02/28/2022	39.19
M-12	02/28/2022	174.61
M-13R	02/28/2022	125.83
M-14	02/28/2022	130.66
M-16	02/28/2022	23.83
M-17	02/28/2022	30.32

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	02/28/2022	26.44
M-19	02/28/2022	24.55
M-21	02/28/2022	18.85
M-22	02/28/2022	17.26
M-23	02/28/2022	43.51
M-24	02/28/2022	26.00
M-26	02/28/2022	14.75
M-31	02/28/2022	38.53
M-32	02/28/2022	48.88
M-33	02/28/2022	48.66
M-34	02/28/2022	19.97

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

April 8, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 March 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of March 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	03/31/2022	DRY
LS2R2	03/31/2022	DRY
LS3R	03/31/2022	DRY
LD1R2	03/31/2022	DRY
LD2R2	03/31/2022	DRY
LD3R	03/31/2022	DRY

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	03/31/2022	72.46	DRY	N/A
P7	03/31/2022	92.50	92.29	0.21
P8	03/31/2022	97.51	96.58	0.93
P9	03/31/2022	72.30	71.92	0.38
P10	03/31/2022	58.30	57.48	0.82
P11	03/31/2022	41.80	41.41	0.39
P12	03/31/2022	41.71	41.65	0.06
P13	03/31/2022	41.34	41.01	0.33
P14	03/31/2022	41.24	DRY	N/A
P15	03/31/2022	41.10	40.87	0.23

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected March 31, 2022 and 830 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected March 31, 2022 and the flow rate was measured to be approximately 31.0 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of March 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 7,218,800 gallons (22.2 acre-feet) of treated water was discharged to the Rito Seco and 287,000 gallons (0.88 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in March.

BMRI performed the monthly visual seepage expression inspections on March 31, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	03/31/2022	24.88
BF-5R	03/31/2022	30.82
BF-6	03/31/2022	30.95
M-6	03/31/2022	DRY
M-7	03/31/2022	DRY
M-8	03/31/2022	DRY
M-9	03/31/2022	141.07
M-10	03/31/2022	24.49
M-11R	03/31/2022	39.46
M-12	03/31/2022	174.11
M-13R	03/31/2022	125.32
M-14	03/31/2022	130.20
M-16	03/31/2022	23.60
M-17	03/31/2022	30.33

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	03/31/2022	26.14
M-19	03/31/2022	24.11
M-21	03/31/2022	18.64
M-22	03/31/2022	17.25
M-23	03/31/2022	43.74
M-24	03/31/2022	25.81
M-26	03/31/2022	14.62
M-31	03/31/2022	38.77
M-32	03/31/2022	47.97
M-33	03/31/2022	51.90
M-34	03/31/2022	19.73

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

May 8, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 April 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of April 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	04/27/2022	DRY
LS2R2	04/27/2022	DRY
LS3R	04/27/2022	DRY
LD1R2	04/27/2022	DRY
LD2R2	04/27/2022	DRY
LD3R	04/27/2022	DRY

Table 1 – Monthly Lysimeter Monitoring

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	04/27/2022	72.46	DRY	N/A
P7	04/27/2022	92.50	92.29	0.21
P8	04/27/2022	97.51	96.58	0.93
P9	04/27/2022	72.30	71.93	0.37
P10	04/27/2022	58.30	57.47	0.83
P11	04/27/2022	41.80	41.40	0.40
P12	04/27/2022	41.71	41.66	0.05
P13	04/27/2022	41.34	41.02	0.32
P14	04/27/2022	41.24	DRY	N/A
P15	04/27/2022	41.10	40.87	0.23

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected April 27, 2022 and 840 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected April 27, 2022 and the flow rate was measured to be approximately 32.0 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of April 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 6,329,500 gallons (19.4 acre-feet) of treated water was discharged to the Rito Seco and 358,000 gallons (1.10 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in April.

BMRI performed the monthly visual seepage expression inspections on April 28, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	04/28/2022	24.80
BF-5R	04/28/2022	30.73
BF-6	04/28/2022	30.85
M-6	04/28/2022	DRY
M-7	04/28/2022	DRY
M-8	04/28/2022	DRY
M-9	04/28/2022	141.35
M-10	04/28/2022	24.37
M-11R	04/28/2022	39.27
M-12	04/28/2022	174.39
M-13R	04/28/2022	125.61
M-14	04/28/2022	130.46
M-16	04/28/2022	23.17
M-17	04/28/2022	29.92

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	04/28/2022	25.22
M-19	04/28/2022	25.53
M-21	04/28/2022	18.23
M-22	04/28/2022	16.91
M-23	04/28/2022	43.63
M-24	04/28/2022	25.67
M-26	04/28/2022	14.46
M-31	04/28/2022	38.60
M-32	04/28/2022	49.60
M-33	04/28/2022	51.77
M-34	04/28/2022	19.52

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

June 8, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 May 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of May 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	05/31/2022	DRY
LS2R2	05/31/2022	DRY
LS3R	05/31/2022	DRY
LD1R2	05/31/2022	DRY
LD2R2	05/31/2022	DRY
LD3R	05/31/2022	DRY

Table 1 – Monthly Lysimeter Monitoring

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	05/31/2022	72.46	DRY	N/A
P7	05/31/2022	92.50	92.28	0.22
P8	05/31/2022	97.51	96.64	0.87
P9	05/31/2022	72.30	71.94	0.36
P10	05/31/2022	58.30	57.49	0.81
P11	05/31/2022	41.80	41.39	0.41
P12	05/31/2022	41.71	41.65	0.06
P13	05/31/2022	41.34	41.01	0.33
P14	05/31/2022	41.24	DRY	N/A
P15	05/31/2022	41.10	40.87	0.23

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected May 31, 2022 and 870 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected May 31, 2022 and the flow rate was measured to be approximately 32.0 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of May 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 7,167,700 gallons (22.0 acre-feet) of treated water was discharged to the Rito Seco and 390,500 gallons (1.20 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in May.

BMRI performed the monthly visual seepage expression inspections on May 31, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	05/31/2022	24.90
BF-5R	05/31/2022	30.79
BF-6	05/31/2022	30.92
M-6	05/31/2022	DRY
M-7	05/31/2022	DRY
M-8	05/31/2022	DRY
M-9	05/31/2022	141.43
M-10	05/31/2022	24.54
M-11R	05/31/2022	39.18
M-12	05/31/2022	174.58
M-13R	05/31/2022	125.85
M-14	05/31/2022	130.91
M-16	05/31/2022	22.78
M-17	05/31/2022	29.95

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	05/31/2022	25.85
M-19	05/31/2022	23.33
M-21	05/31/2022	18.35
M-22	05/31/2022	17.02
M-23	05/31/2022	43.65
M-24	05/31/2022	25.64
M-26	05/31/2022	14.50
M-31	05/31/2022	39.51
M-32	05/31/2022	46.44
M-33	05/31/2022	48.65
M-34	05/31/2022	19.49

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc. San Luis Project

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

July 6, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 June 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of June 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	06/30/2022	DRY
LS2R2	06/30/2022	DRY
LS3R	06/30/2022	DRY
LD1R2	06/30/2022	DRY
LD2R2	06/30/2022	DRY
LD3R	06/30/2022	DRY

Table 1 – Monthly Lysimeter Monitoring
Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	06/30/2022	72.46	DRY	N/A
P 7	06/30/2022	92.50	92.30	0.20
P8	06/30/2022	97.51	96.62	0.89
P9	06/30/2022	72.30	71.93	0.37
P10	06/30/2022	58.30	57.48	0.82
P11	06/30/2022	41.80	41.41	0.39
P12	06/30/2022	41.71	41.65	0.06
P13	06/30/2022	41.34	41.01	0.33
P14	06/30/2022	41.24	DRY	N/A
P15	06/30/2022	41.10	40.87	0.23

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected June 30, 2022 and 890 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected June 30, 2022 and the flow rate was measured to be approximately 32.0 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of June 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 8,090,700 gallons (24.8 acre-feet) of treated water was discharged to the Rito Seco and 410,200 gallons (1.26 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in June.

BMRI performed the monthly visual seepage expression inspections on June 30, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	06/30/2022	24.85
BF-5R	06/30/2022	30.79
BF-6	06/30/2022	30.91
M-6	06/30/2022	DRY
M-7	06/30/2022	DRY
M-8	06/30/2022	DRY
M-9	06/30/2022	141.33
M-10	06/30/2022	24.52
M-11R	06/30/2022	39.00
M-12	06/30/2022	174.43
M-13R	06/30/2022	125.70
M-14	06/30/2022	130.54
M-16	06/30/2022	22.80
M-17	06/30/2022	29.86

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	06/30/2022	24.62
M-19	06/30/2022	23.19
M-21	06/30/2022	18.18
M-22	06/30/2022	16.98
M-23	06/30/2022	43.50
M-24	06/30/2022	25.55
M-26	06/30/2022	14.42
M-31	06/30/2022	38.37
M-32	06/30/2022	46.30
M-33	06/30/2022	48.43
M-34	06/30/2022	19.62

Table 3 Continued – Monthly and Quarterly Groundwater Depth to Water

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc. San Luis Project

P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

August 8, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 July 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of July 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	07/28/2022	DRY
LS2R2	07/28/2022	DRY
LS3R	07/28/2022	DRY
LD1R2	07/28/2022	DRY
LD2R2	07/28/2022	DRY
LD3R	07/28/2022	DRY

Table 1 – Monthly Lysimeter Monitoring

The ten piezometers located on the tailing impoundment main embankment were inspected and measured for depth to water. The depths to water found for each piezometer are shown in Table 2. All piezometers were either dry or contained less than twelve inches of water.

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	07/28/2022	72.46	DRY	N/A
P 7	07/28/2022	92.50	92.30	0.20
P8	07/28/2022	97.51	96.65	0.86
P9	07/28/2022	72.30	71.94	0.36
P10	07/28/2022	58.30	57.49	0.81
P11	07/28/2022	41.80	41.41	0.39
P12	07/28/2022	41.71	41.65	0.06
P13	07/28/2022	41.34	41.01	0.33
P14	07/28/2022	41.24	DRY	N/A
P15	07/28/2022	41.10	40.87	0.23

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected July 28, 2022 and 880 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected July 28, 2022 and the flow rate was measured to be approximately 33.0 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of July 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 7,455,200 gallons (22.9 acre-feet) of treated water was discharged to the Rito Seco and 395,000 gallons (1.21 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in July.

BMRI performed the monthly visual seepage expression inspections on July 28, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	07/28/2022	24.90
BF-5R	07/28/2022	30.83
BF-6	07/28/2022	30.97
M-6	07/28/2022	DRY
M-7	07/28/2022	DRY
M-8	07/28/2022	DRY
M-9	07/28/2022	141.42
M-10	07/28/2022	24.32
M-11R	07/28/2022	38.61
M-12	07/28/2022	174.57
M-13R	07/28/2022	125.79
M-14	07/28/2022	130.60
M-16	07/28/2022	22.96
M-17	07/28/2022	30.10

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	07/28/2022	24.95
M-19	07/28/2022	23.41
M-21	07/28/2022	18.10
M-22	07/28/2022	16.80
M-23	07/28/2022	43.12
M-24	07/28/2022	25.26
M-26	07/28/2022	14.31
M-31	07/28/2022	37.94
M-32	07/28/2022	41.71
M-33	07/28/2022	48.59
M-34	07/28/2022	19.92

Table 3 Continued – Monthly and Quarterly Groundwater Depth to Water

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc. San Luis Project

P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

September 8, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 August 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of August 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	08/31/2022	DRY
LS2R2	08/31/2022	DRY
LS3R	08/31/2022	DRY
LD1R2	08/31/2022	DRY
LD2R2	08/31/2022	DRY
LD3R	08/31/2022	DRY

Table 1 – Monthly Lysimeter Monitoring

The ten piezometers located on the tailing impoundment main embankment were inspected and measured for depth to water. The depths to water found for each piezometer are shown in Table 2. All piezometers were either dry or contained less than twelve inches of water.

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	08/31/2022	72.46	DRY	N/A
P7	08/31/2022	92.50	DRY	N/A
P8	08/31/2022	97.51	96.65	0.86
P9	08/31/2022	72.30	71.93	0.37
P10	08/31/2022	58.30	57.49	0.81
P11	08/31/2022	41.80	41.40	0.40
P12	08/31/2022	41.71	41.65	0.06
P13	08/31/2022	41.34	41.00	0.34
P14	08/31/2022	41.24	DRY	N/A
P15	08/31/2022	41.10	40.86	0.24

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected August 31, 2022 and 870 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected August 31, 2022 and the flow rate was measured to be approximately 32.5 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of August 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 9,676,000 gallons (29.7 acre-feet) of treated water was discharged to the Rito Seco and 762,500 gallons (2.34 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in August.

BMRI performed the monthly visual seepage expression inspections on August 31, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	08/31/2022	24.90
BF-5R	08/31/2022	30.79
BF-6	08/31/2022	30.89
M-6	08/31/2022	DRY
M-7	08/31/2022	DRY
M-8	08/31/2022	DRY
M-9	08/31/2022	141.38
M-10	08/31/2022	24.21
M-11R	08/31/2022	38.43
M-12	08/31/2022	174.47
M-13R	08/31/2022	125.73
M-14	08/31/2022	130.58
M-16	08/31/2022	21.84
M-17	08/31/2022	29.14

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	08/31/2022	25.28
M-19	08/31/2022	23.81
M-21	08/31/2022	17.95
M-22	08/31/2022	16.48
M-23	08/31/2022	42.73
M-24	08/31/2022	25.01
M-26	08/31/2022	14.37
M-31	08/31/2022	37.79
M-32	08/31/2022	43.81
M-33	08/31/2022	46.81
M-34	08/31/2022	19.75

Table 3 Continued – Monthly and Quarterly Groundwater Depth to Water

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc. San Luis Project

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

October 7, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 September 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of September 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	09/29/2022	DRY
LS2R2	09/29/2022	DRY
LS3R	09/29/2022	DRY
LD1R2	09/29/2022	DRY
LD2R2	09/29/2022	DRY
LD3R	09/29/2022	DRY

Table 1 – Monthly Lysimeter Monitoring

The ten piezometers located on the tailing impoundment main embankment were inspected and measured for depth to water. The depths to water found for each piezometer are shown in Table 2. All piezometers were either dry or contained less than twelve inches of water.

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	09/29/2022	72.46	DRY	N/A
P7	09/29/2022	92.50	DRY	N/A
P8	09/29/2022	97.51	96.65	0.86
P9	09/29/2022	72.30	71.93	0.37
P10	09/29/2022	58.30	57.48	0.82
P11	09/29/2022	41.80	41.40	0.40
P12	09/29/2022	41.71	41.64	0.07
P13	09/29/2022	41.34	41.00	0.34
P14	09/29/2022	41.24	DRY	N/A
P15	09/29/2022	41.10	40.85	0.25

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected September 29, 2022 and 830 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected September 29, 2022 and the flow rate was measured to be approximately 33.0 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of September 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 8,565,900 gallons (26.3 acre-feet) of treated water was discharged to the Rito Seco and 476,400 gallons (1.46 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in September.

BMRI performed the monthly visual seepage expression inspections on September 29, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	09/29/2022	24.85
BF-5R	09/29/2022	30.83
BF-6	09/29/2022	31.06
M-6	09/29/2022	DRY
M-7	09/29/2022	DRY
M-8	09/29/2022	DRY
M-9	09/29/2022	141.44
M-10	09/29/2022	24.19
M-11R	09/29/2022	38.57
M-12	09/29/2022	174.59
M-13R	09/29/2022	125.83
M-14	09/29/2022	130.93
M-16	09/29/2022	21.35
M-17	09/29/2022	28.97

Table 3 – Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	09/29/2022	25.32
M-19	09/29/2022	23.81
M-21	09/29/2022	17.67
M-22	09/29/2022	16.45
M-23	09/29/2022	42.83
M-24	09/29/2022	25.15
M-26	09/29/2022	14.63
M-31	09/29/2022	39.93
M-32	09/29/2022	43.93
M-33	09/29/2022	46.49
M-34	09/29/2022	20.01

Table 3 Continued – Monthly and Quarterly Groundwater Depth to Water

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

lis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc. San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

RECEIVED NOV 1 4 2022 DIVISION OF RECLAMATION MINING AND SAPETY MINING AND SAFETY

November 9, 2022

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 October 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of October 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	10/31/2022	DRY
LS2R2	10/31/2022	DRY
LS3R	10/31/2022	DRY
LD1R2	10/31/2022	DRY
LD2R2	10/31/2022	DRY
LD3R	10/31/2022	DRY

Table 1 – Mo	onthly Lysimete	er Monitoring
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The ten piezometers located on the tailing impoundment main embankment were inspected and measured for depth to water. The depths to water found for each piezometer are shown in Table 2. All piezometers were either dry or contained less than twelve inches of water.

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	10/31/2022	72.46	DRY	N/A
P7	10/31/2022	92.50	DRY	N/A
P8	10/31/2022	97.51	96.64	0.87
P9	10/31/2022	72.30	71.92	0.38
P10	10/31/2022	58.30	57.48	0.82
P11	10/31/2022	41.80	41.39	0.41
P12	10/31/2022	41.71	41.65	0.06
P13	10/31/2022	41.34	41.00	0.34
P14	10/31/2022	41.24	DRY	N/A
P15	10/31/2022	41.10	40.86	0.24

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected October 31, 2022 and 850 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected October 31, 2022 and the flow rate was measured to be approximately 32.5 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of October 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 8,808,700 gallons (27.0 acre-feet) of treated water was discharged to the Rito Seco and 377,000 gallons (1.16 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in October.

BMRI performed the monthly visual seepage expression inspections on October 31, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	10/31/2022	24.82
BF-5R	10/31/2022	30.81
BF-6	10/31/2022	30.86
M-6	10/31/2022	DRY
M-7	10/31/2022	DRY
M-8	10/31/2022	DRY
M-9	10/31/2022	141.25
M-10	10/31/2022	24.14
M-11R	10/31/2022	38.59
M-12	10/31/2022	174.41
M-13R	10/31/2022	125.48
M-14	10/31/2022	130.48
M-16	10/31/2022	21.34
M-17	10/31/2022	28.89

Table 3 - Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	10/31/2022	25.48
M-19	10/31/2022	23.79
M-21	10/31/2022	17.33
M-22	10/31/2022	15.99
M-23	10/31/2022	42.79
M-24	10/31/2022	25.09
M-26	10/31/2022	14.64
M-31	10/31/2022	37.98
M-32	10/31/2022	44.31
M-33	10/31/2022	44.95
M-34	10/31/2022	20.08

Table 3 Continued – Monthly and Quarterly Groundwater Depth to Water

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

ulis th

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Battle Mountain Resources, Inc. San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

December 7, 2022

RECEIVED

UEC 122022

DIVISION OF RECLAMATION MINING AND SAPETY

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 November 2022 Monthly Report

Dear Mr. West:

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of November 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	11/30/2022	DRY
LS2R2	11/30/2022	DRY
LS3R	11/30/2022	DRY
LD1R2	11/30/2022	DRY
LD2R2	11/30/2022	DRY
LD3R	11/30/2022	DRY

The ten piezometers located on the tailing impoundment main embankment were inspected and measured for depth to water. The depths to water found for each piezometer are shown in Table 2. All piezometers were either dry or contained less than twelve inches of water.

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	11/30/2022	72.46	DRY	N/A
P7	11/30/2022	92.50	DRY	N/A
P8	11/30/2022	97.51	96.68	0.83
P9	11/30/2022	72.30	71.94	0.36
P10	11/30/2022	58.30	57.47	0.83
P11	11/30/2022	41.80	41.40	0.40
P12	11/30/2022	41.71	41.64	0.07
P13	11/30/2022	41.34	40.99	0.35
P14	11/30/2022	41.24	DRY	N/A
P15	11/30/2022	41.10	40.85	0.25

Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected November 28, 2022 and 860 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected November 30, 2022 and the flow rate was measured to be approximately 32.0 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of November 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 8,848,800 gallons (27.2 acre-feet) of treated water was discharged to the Rito Seco and 400,900 gallons (1.23 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in November.

BMRI performed the monthly visual seepage expression inspections on November 30, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	11/30/2022	24.83
BF-5R	11/30/2022	30.79
BF-6	11/30/2022	30.84
M-6	11/30/2022	DRY
M-7	11/30/2022	DRY
M-8	11/30/2022	DRY
M-9	11/30/2022	141.24
M-10	11/30/2022	24.20
M-11R	11/30/2022	38.87
M-12	11/30/2022	174.39
M-13R	11/30/2022	125.62
M-14	11/30/2022	130.45
M-16	11/30/2022	21.32
M-17	11/30/2022	28.73

Table 3 - Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	11/30/2022	25.61
M-19	11/30/2022	23.91
M-21	11/30/2022	17.62
M-22	11/30/2022	16.17
M-23	11/30/2022	42.86
M-24	11/30/2022	25.18
M-26	11/30/2022	14.98
M-31	11/30/2022	38.24
M-32	11/30/2022	49.08
M-33	11/30/2022	48.35
M-34	11/30/2022	20.21

Table 3 Continued – Monthly and Quarterly Groundwater Depth to Water

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

ulis 7

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File



Battle Mountain Resources, Inc. San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

RECEIVED

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DIVISION OF RECLAMATION MINING AND SAFETY

Mr. Lucas J. West State of Colorado Colorado Department of Reclamation, Mining, & Safety 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Battle Mountain Resources, Inc. San Luis Project - M-88-112 December 2022 Monthly Report

Dear Mr. West:

January 8, 2023

The following summarizes monitoring and site activities at the Battle Mountain Resources Inc. (BMRI) "San Luis Project" (M-88-112) for the month of December 2022. Surface and groundwater monitoring and analysis were completed for all the required sites during the month as specified in the TR-32 Quality Assurance and Quality Control (QA/QC) Plan.

Tailing Facility / Leak Detection System

The six lysimeters which are a part of the Lined Tailing Facility (LTF) leak detection system were inspected and verified for proper vacuum and operation. As shown in Table 1, there was no pore space water found to be present in any of the six lysimeter collection pans, therefore, no sampling or laboratory analysis was required.

Lysimeter Identification	Observation Date	Depth to Water (feet)
LS1R2	12/29/2022	DRY
LS2R2	12/29/2022	DRY
LS3R	12/29/2022	DRY
LD1R2	12/29/2022	DRY
LD2R2	12/29/2022	DRY
LD3R	12/29/2022	DRY

Table 1 – Monthly	^v Lysimeter	Monitoring
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The ten piezometers located on the tailing impoundment main embankment were inspected and measured for depth to water. The depths to water found for each piezometer are shown in Table 2. All piezometers were either dry or contained less than twelve inches of water.

Monitoring Well Identification	Observation Date	Piezometer Depth (ft)	Depth to Water (ft)	Depth of Water (ft)
P6	12/30/2022	72.46	DRY	N/A
P7	12/30/2022	92.50	DRY	N/A
P8	12/30/2022	97.51	96.67	0.84
P9	12/30/2022	72.30	71.94	0.36
P10	12/30/2022	58.30	57.48	0.82
P11	12/30/2022	41.80	41.40	0.40
P12	12/30/2022	41.71	41.65	0.06
P13	12/30/2022	41.34	41.00	0.34
P14	12/30/2022	41.24	DRY	N/A
<u>P15</u>	12/30/2022	41.10	40.85	0.25

 Table 2 – Monthly Piezometer Elevations

The leak detection system at the LTF Collection Pond was inspected December 29, 2022 and 880 gallons were evacuated from the leak detection system and pumped to the LTF. The LTF underdrain system was visually inspected December 29, 2022 and the flow rate was measured to be approximately 32.0 gallons per minute (gpm).

West Pit Waste Water Treatment Plant

During the month of December 2022, the West Pit Waste Water Treatment Plant (WWTP) was operated intermittently (3 to 4 days per week) under Colorado Department of Public Health and Environment (CDPHE) CDPS Permit No. CO0045675 for discharge into the Rito Seco alluvial aquifer. During the month, 8,334,700 gallons (25.6 acre-feet) of treated water was discharged to the Rito Seco and 636,700 gallons (1.95 acre-feet) of water was transferred from the West Pit to the Lined Tailing Facility (LTF). Additionally, no water was reinfiltrated into the West Pit in November.

BMRI performed the monthly visual seepage expression inspections on December 29, 2022 in the historic seepage area identified in Figure 2 of the permit. No seepage expressions were observed in the historic seepage area.

Monitoring Well Identification	Observation Date	Depth to Water (ft)
BF-4	12/30/2022	24.86
BF-5R	12/30/2022	30.83
BF-6	12/30/2022	30.90
M-6	12/30/2022	DRY
M-7	12/30/2022	DRY
M-8	12/30/2022	DRY
M-9	12/30/2022	141.13
M-10	12/30/2022	24.28
M-11R	12/30/2022	39.08
M-12	12/30/2022	174.33
M-13R	12/30/2022	125.54
M-14	12/30/2022	130.40
M-16	12/30/2022	21.69
M-17	12/30/2022	29.26

Table 3 - Monthly and Quarterly Groundwater Depth to Water

Monitoring Well Identification	Observation Date	Depth to Water (ft)
M-18	12/30/2022	26.85
M-19	12/30/2022	24.93
M-21	12/30/2022	17.97
M-22	12/30/2022	16.49
M-23	12/30/2022	43.09
M-24	12/30/2022	25.38
M-26	12/30/2022	15.03
M-31	12/30/2022	38.42
M-32	12/30/2022	43.47
M-33	12/30/2022	47.66
M-34	12/30/2022	20.48

Table 3 Continued – Monthly and Quarterly Groundwater Depth to Water

Should you have any questions or comments, please do not hesitate to call me at (719) 379-0538.

Sincerely,

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Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File

Monthly Water Qua	lity Data for Tailings									
2022			Sample Date							
Analyte	Analysis Method	Units	1/31/2022	2/28/2022	3/31/2022	04/272022	5/31/2022	6/29/2022		
Arsenic, total	M200.8 ICP-MS	mg/L	0.00096	0.00092	B 0.00062	B 0.00062	0.00172	0.00105		
Calcium, total	M200.7 ICP	mg/L	499			594				
Copper, total	M200.7 ICP	mg/L	0.107			0.065				
Iron, total	M200.7 ICP	mg/L	0.708			1.76				
Sodium, total	M200.7 ICP	mg/L	1380			1150				
Zinc, total	M200.7 ICP	mg/L	<0.02			U <0.02				
					L72320	L72821	L73592	L74303		
Monthly Water Qua	lity Data for Tailings									
2022 (Cont)					S	ample Date				
Analyte	Analysis Method	Units	7/28/2022	8/31/2022	9/29/2022	10/31/2022	11/28/2022	12/28/2022		

20					Sa	ample Date		
Analyte	Analysis Method	Units	7/28/2022	8/31/2022	9/29/2022	10/31/2022	11/28/2022	12/28/2022
Arsenic, total	M200.8 ICP-MS	mg/L	0.00113	0.00128	B 0.00048	B 0.00115	B 0.00064	B 0.00046
Calcium, total	M200.7 ICP	mg/L	429			521		
Copper, total	M200.7 ICP	mg/L	0.134			0.085		
Iron, total	M200.7 ICP	mg/L	0.689			0.952		
Sodium, total	M200.7 ICP	mg/L	1710			1280		
Zinc, total	M200.7 ICP	mg/L	U <0.02			<0.02		

B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated

H Analysis exceeded method hold time. pH is a field test with an immediate hold time

L Target analytte response was below the laboratory defined negative threshold

Quarterly Wate	er Quality Data for M-12 2022		2/14/2022	4/12/2022	7/26/2022	10/18/2022
Analyte	Analysis Method	Units	_,,	.,,	.,,	,,
Aluminum, dissolved	M200.7 ICP	mg/L	U <0.05	U <0.05	U <0.05	U <0.05
Arsenic, dissolved	M200.8 ICP-MS	mg/L	U <0.0002	B 0.00027	U <0.0002	B 0.00031
Barium, dissolved	M200.7 ICP	mg/L	0.145	0.15	0.155	0.149
Bicarbonate as CaCO3	SM2320B - Titration	mg/L	149	146	150	163
Cadmium, dissolved	M200.8 ICP-MS	mg/L	0.000292	0.000278	0.000271	0.000333
Calcium, total	M200.7 ICP	mg/L	51.4	52.5	49.9	52.1
Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2	U <2	U <2	U <2
Chloride	M300 - Ion Chromat	mg/L	20.8	20.6	H 20.5	19.7
Chromium, dissolved	M200.8 ICP-MS	mg/L	B 0.00066	B 0.00071	B 0.00063	B 0.00071
Copper, dissolved	M200.8 ICP-MS	mg/L	U <0.0008	U <0.0008	U <0.0008	0.00053
Cyanide WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	U <0.003	U <0.003	U <0.003
Fluoride	M300.0 - Ion Chromat	mg/L	0.296	0.302	H 0.307	0.303
Gross Alpha	M900.0	pCi/L	7.4	9.4	8.6	7.2
Gross Beta	M900.0	pCi/L	4.6	1.5	3	7.3
Hardness as CaCO3 (total)	SM2340B - Calculation	mg/L	163	165	158	166
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2	U <2	U <2	U <2
Iron, dissolved	M200.7 ICP	mg/L	U <0.06	U <0.06	U <0.06	U <0.06
Lead, dissolved	M200.8 ICP-MS	mg/L	0.00101	0.00092	0.00094	0.00115
Magnesium, total	M200.7 ICP	mg/L	8.43	8.5	8.06	8.83
Manganese, dissolved	M200.7 ICP	mg/L	U <0.01	U <0.01	U <0.01	U <0.01
Mercury, dissolved	M245.1 CVAA	mg/L	U <0.0002	U <0.0002	U <0.0002	U <0.0002
Nickel, dissolved	M200.8 ICP-MS	mg/L	U <0.0004	U <0.0004	U <0.0004	U <0.004
Potassium, total	M200.7 ICP	mg/L	2.01	1.99	2.07	2.01
Residue, Filterable (TDS)	SM2540C	mg/L	216	230	238	212
Selenium, dissolved	M200.8 ICP-MS	mg/L	0.00139	0.00163	0.00149	0.00177
Silica, total	M200.7 ICP	mg/L	19.3	19.7	17.3	22.8
Silver, dissolved	M200.8 ICP-MS	mg/L	U <0.0001	U <0.0001	U <0.0001	U <0.0001
Sodium, total	M200.7 ICP	mg/L	13.7	13.7	13.2	13.7
Sulfate	M300.0 -	mg/L	9.63	13.1	H 10.4	8.11
Total Alkalinity	SM2320B - Titration	mg/L	149	146	150	163
Zinc, dissolved	M200.8 ICP-MS	mg/L	0.405	0.351	0.348	0.517

- B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
- U The material was analyzed for but was not detected above the level of the associated value

Quarterly Water	Quality Data for M13R		2/14/2022	4/12/2022	7/26/2022	10/18/2022
Analyte	Analysis Method	Units	_, _ ,	.,,	.,,	
Aluminum, dissolved	M200.7 ICP	mg/L	U <0.05	U <0.05	U <0.05	U <0.05
Arsenic, dissolved	M200.8 ICP-MS	mg/L	B 0.00043	B 0.00057	B 0.00050	B 0.00068
Barium, dissolved	M200.7 ICP	mg/L	0.123	0.124	0.13	0.126
Bicarbonate as CaCO3	SM2320B - Titration	mg/L	337	337	317	322
Cadmium, dissolved	M200.8 ICP-MS	mg/L	B 0.000198	B 0.000220	B 0.000186	B 0.000248
Calcium, total	M200.7 ICP	mg/L	90.7	93.4	90.9	93.7
Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2	U <2	U <2	U <2
Chloride	M300 - Ion Chromat	mg/L	3.86	3.76	H 3.62	3.54
Chromium, dissolved	M200.8 ICP-MS	mg/L	U <0.0005	U <0.0005	U <0.0005	U <0.0005
Copper, dissolved	M200.8 ICP-MS	mg/L	U <0.0008	B 0.00098	B 0.00085	B 0.00132
Cyanide WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	U <0.003	U <0.003	U <0.003
Fluoride	M300.0 - Ion Chromat	mg/L	0.362	0.386	H 0.392	0.381
Gross Alpha	M900.0	pCi/L	36	26	42	41
Gross Beta	M900.0	pCi/L	19	17	7.5	18
Hardness as CaCO3 (total)	SM2340B - Calculation	mg/L	288	294	286	297
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2	U <2	U <2	U <2
Iron, dissolved	M200.7 ICP	mg/L	U <0.06	U <0.06	U <0.06	U <0.06
Lead, dissolved	M200.8 ICP-MS	mg/L	0.00072	0.00071	0.00069	0.00078
Magnesium, total	M200.7 ICP	mg/L	15	14.7	14.4	15.4
Manganese, dissolved	M200.7 ICP	mg/L	U <0.01	U <0.01	U <0.01	U <0.01
Mercury, dissolved	M245.1 CVAA	mg/L	U <0.0002	U <0.0002	U <0.0002	U <0.0002
Nickel, dissolved	M200.8 ICP-MS	mg/L	U <0.0004	U <0.0004	U <0.0004	U <0.0004
Potassium, total	M200.7 ICP	mg/L	1.47	1.43	1.53	1.51
Residue, Filterable (TDS)	SM2540C	mg/L	372	376	388	374
Selenium, dissolved	M200.8 ICP-MS	mg/L	0.00559	0.00686	0.00649	0.00769
Silica, total	M200.7 ICP	mg/L	24.9	24.5	24.6	27.2
Silver, dissolved	M200.8 ICP-MS	mg/L	U <0.0001	U <0.0001	U <0.0001	U <0.0001
Sodium, total	M200.7 ICP	mg/L	32.3	33.1	31.9	32.3
Sulfate	M300.0 -	mg/L	14.8	18.2	H 15.2	14.5
Total Alkalinity	SM2320B - Titration	mg/L	337	337	317	322
Zinc, dissolved	M200.8 ICP-MS	mg/L	0.516	0.602	0.483	0.681

- B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
- U The material was analyzed for but was not detected above the level of the associated value

	Quality Data for M-14 2 (Jan-Jun)		1/18/2022	2/15/2022	3/31/2022	4/25/2022	5/26/2022	6/28/2022
Analyte	Analysis Method	Units						
Aluminum, dissolved	M200.7 ICP	mg/L	U <0.05	U <0.05	U <0.05	B 0.071	U <0.05	U <0.05
Arsenic, dissolved	M200.8 ICP-MS	mg/L	B 0.00074	B 0.00060	B 0.00068	B 0.00058	B 0.00056	B 0.00062
Barium, dissolved	M200.7 ICP	mg/L	0.371	0.371	0.381	0.39	0.396	0.379
Cadmium, dissolved	M200.8 ICP-MS	mg/L	B 0.000103	B 0.000064	U <0.00005	U <0.00005	U <0.00005	B 0.000076
Calcium, total	M200.7 ICP	mg/L	199	194	195	197	193	194
Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2	U <2	U <2	U <2	U <2	U <2
Chloride	M300 - Ion Chromat	mg/L	8.98	8.94	8.96	9.06	H 9.11	B 7.54
Chromium, dissolved	M200.8 ICP-MS	mg/L	B 0.00093	B 0.00088	0.00206	0.00275	B 0.00113	B 0.00077
Copper, dissolved	M200.8 ICP-MS	mg/L	B 0.00100	B 0.00097	B 0.00084	U <0.0008	U <0.0008	B 0.00152
Cyanide WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	U <0.003	U <0.003	B 0.0056	U <0.003	U <0.003
Fluoride	M300.0 - Ion Chromat	mg/L	0.419	0.407	0.413	0.408	0.402	U <0.5
Gross Alpha	M900.0	pCi/L	150	140	95	120	150	130
Gross Beta	M900.0	pCi/L	77	87	46	41	94	89
Hardness as CaCO3 (total)	SM2340B - Calculation	mg/L	623	610	609	616	603	606
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2	U <2	U <2	U <2	U <2	U <2
								-
Iron, dissolved	M200.7 ICP	mg/L	U <0.06	U <0.06	U <0.06	B 0.063	U <0.06	U <0.06
Iron, dissolved Lead, dissolved	M200.7 ICP M200.8 ICP-MS	mg/L mg/L	U <0.06 B 0.00024	U <0.06 U <0.0001	U <0.06 U <0.0001		U <0.06 U <0.0001	
•		-						U <0.06
Lead, dissolved	M200.8 ICP-MS	mg/L	B 0.00024	U <0.0001	U <0.0001	U <0.0001	U <0.0001	U <0.06 U <0.0001
Lead, dissolved Magnesium, total	M200.8 ICP-MS M200.7 ICP	mg/L mg/L	B 0.00024 30.5	U <0.0001 30.4	U <0.0001 29.6	U <0.0001 30.2 B 0.012	U <0.0001 29.5	U <0.06 U <0.0001 29.6
Lead, dissolved Magnesium, total Manganese, dissolved	M200.8 ICP-MS M200.7 ICP M200.7 ICP	mg/L mg/L mg/L	B 0.00024 30.5 U <0.01	U <0.0001 30.4 U <0.01	U <0.0001 29.6 U <0.01	U <0.0001 30.2 B 0.012	U <0.0001 29.5 U <0.01	U <0.06 U <0.0001 29.6 U <0.01
Lead, dissolved Magnesium, total Manganese, dissolved Mercury, dissolved	M200.8 ICP-MS M200.7 ICP M200.7 ICP M245.1 CVAA	mg/L mg/L mg/L mg/L	B 0.00024 30.5 U <0.01 U <0.0002	U <0.0001 30.4 U <0.01 U <0.0002	U <0.0001 29.6 U <0.01 U <0.0002	U <0.0001 30.2 B 0.012 U <0.0002	U <0.0001 29.5 U <0.01 U <0.0002	U <0.06 U <0.0001 29.6 U <0.01 U <0.0002
Lead, dissolved Magnesium, total Manganese, dissolved Mercury, dissolved Nickel, dissolved	M200.8 ICP-MS M200.7 ICP M200.7 ICP M245.1 CVAA M200.8 ICP-MS	mg/L mg/L mg/L mg/L mg/L	B 0.00024 30.5 U <0.01 U <0.0002 0.00122	U <0.0001 30.4 U <0.01 U <0.0002 0.0016	U <0.0001 29.6 U <0.01 U <0.0002 0.00389	U <0.0001 30.2 B 0.012 U <0.0002 0.00677	U <0.0001 29.5 U <0.01 U <0.0002 0.00186	U <0.06 U <0.0001 29.6 U <0.01 U <0.0002 0.0015
Lead, dissolved Magnesium, total Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, total	M200.8 ICP-MS M200.7 ICP M200.7 ICP M245.1 CVAA M200.8 ICP-MS M200.7 ICP	mg/L mg/L mg/L mg/L mg/L	B 0.00024 30.5 U <0.01 U <0.0002 0.00122 2.03	U <0.0001 30.4 U <0.01 U <0.0002 0.0016 2.12	U <0.0001 29.6 U <0.01 U <0.0002 0.00389 1.98	U <0.0001 30.2 B 0.012 U <0.0002 0.00677 2.09	U <0.0001 29.5 U <0.01 U <0.0002 0.00186 2.08	U <0.06 U <0.0001 29.6 U <0.01 U <0.0002 0.0015 1.9
Lead, dissolved Magnesium, total Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, total Residue, Filterable (TDS)	M200.8 ICP-MS M200.7 ICP M200.7 ICP M245.1 CVAA M200.8 ICP-MS M200.7 ICP SM2540C	mg/L mg/L mg/L mg/L mg/L mg/L	B 0.00024 30.5 U <0.01 U <0.0002 0.00122 2.03 802	U <0.0001 30.4 U <0.01 U <0.0002 0.0016 2.12 700	U <0.0001 29.6 U <0.01 U <0.0002 0.00389 1.98 706	U <0.0001 30.2 B 0.012 U <0.0002 0.00677 2.09 702	U <0.0001 29.5 U <0.01 U <0.0002 0.00186 2.08 716	U <0.06 U <0.0001 29.6 U <0.01 U <0.0002 0.0015 1.9 706
Lead, dissolved Magnesium, total Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, total Residue, Filterable (TDS) Selenium, dissolved	M200.8 ICP-MS M200.7 ICP M200.7 ICP M245.1 CVAA M200.8 ICP-MS M200.7 ICP SM2540C M200.8 ICP-MS	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	B 0.00024 30.5 U <0.01 U <0.0002 0.00122 2.03 802 0.00302	U <0.0001 30.4 U <0.01 U <0.0002 0.0016 2.12 700 0.00243 29.1	U <0.0001 29.6 U <0.01 U <0.0002 0.00389 1.98 706 0.00286	U <0.0001 30.2 B 0.012 U <0.0002 0.00677 2.09 702 0.00225	U <0.0001 29.5 U <0.01 U <0.0002 0.00186 2.08 716 0.0026 24.7	U <0.06 U <0.0001 29.6 U <0.01 U <0.0002 0.0015 1.9 706 0.00271
Lead, dissolved Magnesium, total Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, total Residue, Filterable (TDS) Selenium, dissolved Silica, total	M200.8 ICP-MS M200.7 ICP M200.7 ICP M245.1 CVAA M200.8 ICP-MS M200.7 ICP SM2540C M200.8 ICP-MS M200.7 ICP	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	B 0.00024 30.5 U <0.01 U <0.0002 0.00122 2.03 802 0.00302 28.7	U <0.0001 30.4 U <0.01 U <0.0002 0.0016 2.12 700 0.00243 29.1	U <0.0001 29.6 U <0.01 U <0.0002 0.00389 1.98 706 0.00286 29.8	U <0.0001 30.2 B 0.012 U <0.0002 0.00677 2.09 702 0.00225 25.3	U <0.0001 29.5 U <0.01 U <0.0002 0.00186 2.08 716 0.0026 24.7	U <0.06 U <0.0001 29.6 U <0.01 U <0.0002 0.0015 1.9 706 0.00271 28.8
Lead, dissolved Magnesium, total Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, total Residue, Filterable (TDS) Selenium, dissolved Silica, total Silver, dissolved	M200.8 ICP-MS M200.7 ICP M200.7 ICP M245.1 CVAA M200.8 ICP-MS M200.7 ICP SM2540C M200.8 ICP-MS M200.7 ICP M200.8 ICP-MS	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	B 0.00024 30.5 U <0.01 U <0.0002 0.00122 2.03 802 0.00302 28.7 U <0.0001	U <0.0001 30.4 U <0.01 U <0.0002 0.0016 2.12 700 0.00243 29.1 U <0.0001	U <0.0001 29.6 U <0.01 U <0.0002 0.00389 1.98 706 0.00286 29.8 U <0.0001	U <0.0001 30.2 B 0.012 U <0.0002 0.00677 2.09 702 0.00225 25.3 U <0.0001	U <0.0001 29.5 U <0.01 U <0.0002 0.00186 2.08 716 0.0026 24.7 U <0.0001	U < 0.06 U < 0.0001 29.6 U < 0.01 U < 0.0002 0.0015 1.9 706 0.00271 28.8 U < 0.0001 30.8 23.5
Lead, dissolved Magnesium, total Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, total Residue, Filterable (TDS) Selenium, dissolved Silica, total Silver, dissolved Sodium, total	M200.8 ICP-MS M200.7 ICP M200.7 ICP M245.1 CVAA M200.8 ICP-MS M200.7 ICP SM2540C M200.8 ICP-MS M200.7 ICP M200.8 ICP-MS M200.7 ICP	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	B 0.00024 30.5 U <0.01 U <0.0002 0.00122 2.03 802 0.00302 28.7 U <0.0001 32.1	U <0.0001 30.4 U <0.01 U <0.0002 0.0016 2.12 700 0.00243 29.1 U <0.0001 31.4	U <0.0001 29.6 U <0.01 U <0.0002 0.00389 1.98 706 0.00286 29.8 U <0.0001 31.1	U <0.0001 30.2 B 0.012 U <0.0002 0.00677 2.09 702 0.00225 25.3 U <0.0001 31.5	U <0.0001 29.5 U <0.01 U <0.0002 0.00186 2.08 716 0.0026 24.7 U <0.0001 30.7	U <0.06 U <0.0001 29.6 U <0.01 U <0.0002 0.0015 1.9 706 0.00271 28.8 U <0.0001 30.8

	Quality Data for M-14 2 (Jul-Dec)		7/19/2022	8/29/2022	9/13/2022	10/19/2022	11/16/2022	12/12/2022
Analyte	Analysis Method	Units						
Aluminum, dissolved	M200.7 ICP	mg/L	U <0.05					
Arsenic, dissolved	M200.8 ICP-MS	mg/L	B 0.00063	B 0.00073	B 0.00062	B 0.00090	B 0.00068	0.0103
Barium, dissolved	M200.7 ICP	mg/L	0.382	0.384	0.385	0.372	0.391	0.384
Cadmium, dissolved	M200.8 ICP-MS	mg/L	U <0.00005	B 0.000152	B 0.000065	U <0.00005	U <0.00005	U <0.00005
Calcium, total	M200.7 ICP	mg/L	195	198	204	198	196	193
Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2					
Chloride	M300 - Ion Chromat	mg/L	8.89	B 7.61	B 10.9	8.68	H 8.71	B 12.4
Chromium, dissolved	M200.8 ICP-MS	mg/L	B 0.00121	B 0.00082	0.00379	B 0.00144	0.00471	B 0.00054
Copper, dissolved	M200.8 ICP-MS	mg/L	B 0.00158	0.0025	B 0.00165	B 0.00138	B 0.00100	0.00205
Cyanide WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	UH <0.006				
Fluoride	M300.0 - Ion Chromat	mg/L	0.351	B 0.592	U <0.5	0.393	H 0.387	U <0.5
Gross Alpha	M900.0	pCi/L	160	140	140	120	120	170
Gross Beta	M900.0	pCi/L	47	65	79	61	42	70
Hardness as CaCO3 (total)	SM2340B - Calculation	mg/L	608	620	639	623	620	610
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2					
Iron, dissolved	M200.7 ICP	mg/L	U <0.06					
Lead, dissolved	M200.8 ICP-MS	mg/L	U <0.0001	B 0.00014				
Magnesium, total	M200.7 ICP	mg/L	29.4	30.6	315	31.3	31.6	31
Manganese, dissolved	M200.7 ICP	mg/L	U <0.01					
Mercury, dissolved	M245.1 CVAA	mg/L	U <0.0002					
Nickel, dissolved	M200.8 ICP-MS	mg/L	0.00251	0.00325	0.00846	0.00345	0.0111	0.00133
Potassium, total	M200.7 ICP	mg/L	2.05	2.1	2.12	2.18	2.14	2.16
Residue, Filterable (TDS)	SM2540C	mg/L	696	708	694	712	728	704
Selenium, dissolved	M200.8 ICP-MS	mg/L	0.00291	0.00253	0.00278	0.00308	0.00299	0.00077
Silica, total	M200.7 ICP	mg/L	26.8	25.2	29.7	29	29.3	28.5
Silver, dissolved	M200.8 ICP-MS	mg/L	U <0.0001					
Sodium, total	M200.7 ICP	mg/L	30.9	31.5	32.7	30.9	31.5	30.8
Sulfate	M300.0 -	mg/L	21.8	B 19.6	B 16.5	25.3	26.5	B 14.6
Total Alkalinity	SM2320B - Titration	mg/L	602	625	614	608	649	620
Zinc, dissolved	M200.8 ICP-MS	mg/L	U <0.006	U <0.006	U <0.006	B 0.0084	B 0.0095	B 0.0130

- B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
- U The material was analyzed for but was not detected above the level of the associated value

Quarterly Wate	er Quality Data for M-9 2022		2/14/2022	4/12/2022	7/26/2022	10/18/2022
Analyte	Analysis Method	Units	_,,	.,,	.,,	10/ 10/ 2022
Aluminum, dissolved	M200.7 ICP	mg/L	U <0.05	U <0.05	U <0.05	U <0.05
Arsenic, dissolved	M200.8 ICP-MS	mg/L	B 0.00096	0.00128	0.00101	0.0012
Barium, dissolved	M200.7 ICP	mg/L	0.114	0.117	0.122	0.12
Bicarbonate as CaCO3	SM2320B - Titration	mg/L	312	295	275	284
Cadmium, dissolved	M200.8 ICP-MS	mg/L	B 0.000240	B 0.000242	0.000294	B 0.000245
Calcium, total	M200.7 ICP	mg/L	85.2	87.6	84.7	90.1
Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2	U <2	U <2	U <2
Chloride	M300 - Ion Chromat	mg/L	3.98	3.6	H 3.43	3.4
Chromium, dissolved	M200.8 ICP-MS	mg/L	U <0.0005	U <0.0005	U <0.0005	U <0.0005
Copper, dissolved	M200.8 ICP-MS	mg/L	0.00417	0.00395	0.0039	0.00549
Cyanide WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	U <0.003	U <0.003	U <0.003
Fluoride	M300.0 - Ion Chromat	mg/L	B 0.231	0.252	H 0.254	B 0.245
Gross Alpha	M900.0	pCi/L	9.8	7.1	9	12
Gross Beta	M900.0	pCi/L	4.4	5.1	5.7	6.2
Hardness as CaCO3 (total)	SM2340B - Calculation	mg/L	265	271	263	282
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2	U <2	U <2	U <2
Iron, dissolved	M200.7 ICP	mg/L	U <0.06	U <0.06	U <0.06	U <0.06
Lead, dissolved	M200.8 ICP-MS	mg/L	0.00051	0.00066	0.00059	0.00061
Magnesium, total	M200.7 ICP	mg/L	12.8	12.7	12.5	13.8
Manganese, dissolved	M200.7 ICP	mg/L	U <0.01	U <0.01	U <0.01	U <0.01
Mercury, dissolved	M245.1 CVAA	mg/L	U <0.0002	U <0.0002	U <0.0002	U <0.0002
Nickel, dissolved	M200.8 ICP-MS	mg/L	U <0.0004	U <0.0004	U <0.0004	U 0.0004
Potassium, total	M200.7 ICP	mg/L	1.72	1.74	1.78	1.73
Residue, Filterable (TDS)	SM2540C	mg/L	358	348	350	338
Selenium, dissolved	M200.8 ICP-MS	mg/L	0.00331	0.00387	0.00377	0.0043
Silica, total	M200.7 ICP	mg/L	26.5	26.3	24.8	29.6
Silver, dissolved	M200.8 ICP-MS	mg/L	U <0.0001	U <0.0001	U <0.0001	U <0.0001
Sodium, total	M200.7 ICP	mg/L	25.6	26	25.2	26.2
Sulfate	M300.0 -	mg/L	16.4	21	H 17.1	11.8
Total Alkalinity	SM2320B - Titration	mg/L	312	295	275	284
Zinc, dissolved	M200.8 ICP-MS	mg/L	0.333	0.349	0.332	0.405

- B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
- U The material was analyzed for but was not detected above the level of the associated value

Quarterly Wat	er Quality Data for Ranc	h Well	Ranch	Well
	2022		2/22/2022	8/30/2022
Analyte	Analysis Method	Units		
Aluminum, total	M200.7 ICP	mg/L	0.454	U <0.05
Arsenic, total	M200.8 ICP-MS	mg/L	B 0.0004	U 0.00027
Barium, total	M200.7 ICP	mg/L	0.0642	B 0.0704
Boron, total	M200.7ICP	mg/L	U <0.03	U <0.03
Cadmium, total	M200.8 ICP-MS	mg/L	U <0.00005	U <0.00005
Chromium, total	M200.8 ICP-MS	mg/L	U <0.02	U <0.02
Copper, total	M200.7 ICP	mg/L	U <0.01	U <0.01
Cyanide WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	U <0.003
Flouride	M300.0 - Ion Chromat	mg/L	0.352	0.398
Iron, total	M200.7 ICP	mg/L	0.53	U <0.06
Lead, total	M200.8 ICP-MS	mg/L	U <0.03	U <0.03
Manganese, total	M200.7 ICP	mg/L	B 0.011	U <0.01
Mercury, total	M245.1 CVAA	mg/L	U <0.0002	U <0.0002
Molybdenum, total	M200.7 ICP	mg/L	U <0.02	U <0.02
Nickel, total	M200.8 ICP-MS	mg/L	U <0.008	U <0.008
Selenium, total	M200.8 ICP-MS	mg/L	B 0.00013	U <0.0001
Silver, total	M200.8 ICP-MS	mg/L	U <0.0001	U <0.0001
Zinc, total	M200.8 ICP-MS	mg/L	U <0.02	U <0.02

B Analyte concentration detected at a value between MDL and PQL.
The associated value is an estimated quantity

- H Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
- U The material was analyzed for but was not detected above the level of the associated value

Quarterly Water (Quality Data for San Luis	Town Well	San Luis T	own Well
	2022		2/22/2022	8/30/2022
Analyte	Analysis Method	Units		
Aluminum, total	M200.7 ICP	mg/L	U <0.05	U <0.05
Arsenic, total	M200.8 ICP-MS	mg/L	B 0.00024	B 0.00028
Barium, total	M200.7 ICP	mg/L	0.041	0.0413
Boron, total	M200.7ICP	mg/L	U <0.03	U <0.03
Cadmium, total	M200.8 ICP-MS	mg/L	U <0.00005	U <0.00005
Chromium, total	M200.8 ICP-MS	mg/L	U <0.02	U <0.02
Copper, total	M200.7 ICP	mg/L	U <0.01	U <0.01
Cyanide WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	U <0.003
Flouride	M300.0 - Ion Chromat	mg/L	0.388	0.434
Iron, total	M200.7 ICP	mg/L	U <0.06	B 0.066
Lead, total	M200.8 ICP-MS	mg/L	U <0.03	U <0.03
Manganese, total	M200.7 ICP	mg/L	U <0.01	U <0.01
Mercury, total	M245.1 CVAA	mg/L	U <0.0002	U <0.0002
Molybdenum, total	M200.7 ICP	mg/L	U <0.02	U <0.02
Nickel, total	M200.8 ICP-MS	mg/L	U <0.008	U <0.008
Selenium, total	M200.8 ICP-MS	mg/L	U <0.0001	U <0.0001
Silver, total	M200.8 ICP-MS	mg/L	U <0.0001	U <0.000
Zinc, total	M200.8 ICP-MS	mg/L	U <0.02	U <0.02

В	Analyte concentration detected at a value between MDL and
	PQL. The associated value is an estimated quantity

- H Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
- U The material was analyzed for but was not detected above the level of the associated value

Quarterly V	Vater Quality Data for WD-1 2022		2/22/2022	5/10/2022	8/30/2022	11/15/2022
Analyte	Analysis Method	Units	_,, _0	3, 10, 2022	0,00,2022	11, 10, 2022
Arsenic, total	M200.8 ICP-MS	mg/L	B 0.00029	B 0.00055	B 0.00051	B 0.00029
Copper, total	M200.8 ICP-MS	mg/L	B 0.00091	B 0.00100	B 0.00096	U <0.0008
Cyanide WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	U <0.003	U <0.003	U <0.003
Flouride	SM4500F-C	mg/L	0.72	0.68	0.64	0.57
Iron, total	M200.7 ICP	mg/L	1.13	1.13	0.679	0.81
Manganese, dissolved	M200.7 ICP	mg/L	0.121	0.092	B 0.017	B 0.040
Sulfate	D516-02/-07/-11 - TU	mg/L	21.7	10.3	B 4.8	14.5
Zinc	M200.7 ICP	mg/L	U <0.02	U <0.02	U <0.02	U <0.02

- B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
- U The material was analyzed for but was not detected above the level of the associated value

	Quality Data for RS-1		Sample Date
ANALYTE	METHOD	UNITS	1/4/2022 4/6/2022 7/5/2022 10/3/2022
Aluminum, potentially			_, ,, ,,_, ,,_, ,,,,,,,,,
dissolved	M200.8 ICP-MS	mg/L	B 0.0115 0.0329 0.0319 0.356
Arsenic, total	M200.8 ICP-MS	mg/L	U <0.0002 U <0.0002 U <0.0002 B 0.00068
Bicarbonate as CaCO3	SM2320B - Titration	mg/L	65.5 62.6 54.2 50.6
		0,	
Cadmium, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.00005U <0.00005 B 0.0001 U <0.00005
Calcium, dissolved	M200.7 ICP	mg/L	16.2 15.7 15.5 12.7
Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2 U <2 U <2 U <2
Chloride	SM4500CI-E	mg/L	B1.25 B 1.35 B 0.95 B 1.58
Chromium, dissolved	M200.8 ICP-MS	mg/L	U <0.0005 U <0.0005 U <0.0005 U <0.0005
Copper, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.0008 U <0.0008 U <0.0008 0.00255
Fluoride	SM4500F-C	mg/L	0.47 0.56 0.38 B 0.33
Gross Alpha	M900.0	pCi/L	4 3.5 2.2 5.6
Gross Beta	M900.0	pCi/L	-15 1.8 2.1 7.2
Hardness as CaCO3 (dissolved)	SM2340B - Calculatio	mg/L	57 55 54 45
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2 U <2 U <2 U <2
Iron, dissolved	M200.7 ICP	mg/L	U <0.06 B 0.063 B 0.115 B 0.13
Iron, total recoverable	M200.7 ICP	mg/L	B0.13 0.306 0.398 3.32
Lead, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.0001 B 0.00011 B 0.00028 0.00216
Magnesium, dissolved	M200.7 ICP	mg/L	3.99 3.8 3.75 3.21
Manganese, dissolved	M200.7 ICP	mg/L	B0.016 U <0.01 B 0.022 B 0.014
Manganese, total recoverable	M200.7 ICP	mg/L	U <0.02 B 0.021 B 0.034 0.181
Mercury, total	M245.1 CVAA	mg/L	U <0.0002 U <0.0002 U <0.0002 U <0.0002
Nickel, dissolved	M200.8 ICP-MS	mg/L	B 0.00043 U <0.0004 U <0.0004 U <0.0004
Nitrogen, ammonia	M350.1 Auto Salicyla	mg/L	U <0.05 U <0.05 U <0.05 U <0.05
Oil and Grease	1664A/B - Gravimetri	mg/L	U <2.1 U <1.8 no data U <2
Potassium, total	M200.7 ICP	mg/L	B0.65 B 0.79 B 0.63 1.49
Residue, Non-Filterable (TSS)			
@105C	SM2540D	mg/L	U <5 U <5 BH 5 62
Selenium, dissolved	M200.8 ICP-MS	mg/L	U <0.0001 U <0.0001 U <0.0001 B 0.00012
Silica, total	M200.7 ICP	mg/L	12.6 11.8 11.3 16.8
Silver, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.0001 U <0.0001 U <0.0001 U <0.0001
Sodium, total	M200.7 ICP	mg/L	3.34 3.43 3.22 3.11
Sulfate	M300.0 - Ion Chromat	mg/L	4.3 5.56 2.96 B 1.49
Total Alkalinity	SM2320B - Titration	mg/L	65.5 62.6 54.2 50.6
Zinc, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.006 U <0.006 U <0.006 B 0.0074
Definitions:			

B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity

H Analysis exceeded method hold time. pH is a field test with an immediate hold time

Monthly Water Quality Dat	ta for RS-2													
2022 ANALYTE	Method	Units	1/4/2022	2/1/2022	2/1/2022	4/6/2022	E /4/2022		nple Date	9/1/2022	0/1/2022	10/2/2022	11/1/2022	12/5/2022
Aluminum, dissolved	M200.7 ICP	mg/L	U <0.05	U <0.05	U <0.05	4/0/2022 U <0.05	U <0.05	U <0.05	B 0.061	U <0.05	U <0.05	U <0.05	U <0.05	U <0.05
Aluminum, potentially dissolved	M200.8 ICP-MS	mg/L	B 0.0268	0 \0.05	0 -0.05	0.0841	0 \0.05	0 \0.05	0.0928	0 \0.05	0 \0.05	0.0908	0 40.05	0 \0.05
Aluminum, total	M200.7 ICP	mg/L	B 0.116	B 0.12	0.59	0.53	0.395	B 0.194	0.727	0.421	0.371	0.61	0.061	B 0.245
Arsenic, dissolved	M200.8 ICP-MS	-									2 U <0.0002		U <0.0002	U <0.0002
Arsenic, total	M200.8 ICP-MS		U <0.0002	U <0.0002	U <0.0002	U <0.0002	U <0.0002	B 0.0002	B 0.00032	B 0.00027	в 0.00028	B 0.00022	U <0.0002	U <0.0002
Barium, dissolved	M200.7 ICP	mg/L	0.0262	B 0.0261	B 0.0269	B 0.0182	B 0.0229	B 0.0237	B 0.0334	B 0.021	B 0.0222	B 0.02	B 0.0221	B 0.0217
Barium, total	M200.7 ICP	mg/L	B 0.0275	B 0.0277	B 0.032	0.0352	B 0.0264	B 0.0239	0.0384	B 0.0288	B 0.024	B 0.0299	B 0.0241	B 0.0217
Bicarbonate as CaCO3	SM2320B - Titratio	nmg/L	70.6	51.7	71.2	57	54.7	51.6	61.3	55.4	47.8	57.5	48.7	56.4
Boron, dissolved	M200.7 ICP	mg/L	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03
Boron, total	M200.7 ICP	mg/L	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03	U <0.03
Cadmium, dissolved	M200.8 ICP-MS	0.									5U <0.00005		U <0.00005	U <0.00005
Cadmium, potentially dissolved	M200.8 ICP-MS	0.	J <0.0005			U <0.0005			U <0.0005			U <0.00005		
Cadmium, total	M200.8 ICP-MS	0.											U <0.00005	
Calcium, dissolved	M200.7 ICP M200.7 ICP	mg/L	17.6 17.7	16.1 16.4	16.4 16.4	15.1 15.6	14.9 15.5	14.4 14.9	17.6 17.5	15.1 15.7	13.7 13.9	14.1 14.5	13.2 13.3	15.6 15.1
Calcium, total	SM5310B	mg/L mg/L	B 1.5	16.4 B 1.4	16.4 B 1.6	15.6 B 1.6	15.5 B 2.5	14.9 B 1.8	B 3	15.7 B 4.4	13.9 B 2.6	14.5 B 2.5	B 1.3	B 1.2
Carbon, total organic (TOC) Carbonate as CaCO3	SM2320B - Titratio	-	U <2	U <2	U <2	U <2	ы 2.5 U <2	U <2	ыз U <2	ы 4.4 U <2	U <2	U <2	U <2	U <2
Chloride	SM4500CI-E	mg/L mg/L	0 < 2 B 1.57	0 12	0 12	3.25	0 12	0 12	0 <2 B 1.36	0 12	0 12	0 <2 B 1.47	0 12	0 12
Chloride	M300.0 - Ion Chror	-	4.42	2.31	2.23	2.62	B 1.35	H 3.97	B 0.56	B 0.44	B 0.73	B 0.76	4.36	B 0.86
Chromium, dissolved	M200.8 ICP-MS										5 U <0.0005		U <0.0005	U <0.0005
Chromium, total	M200.8 ICP-MS										U <0.0005		U <0.0005	U <0.0005
Copper, dissolved	M200.8 ICP-MS	-		U <0.0008							U <0.0008		U <0.0008	U <0.0008
Copper, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.0008			U <0.0008			B 0.00128			B 0.00094		
Copper, total	M200.8 ICP-MS	mg/L	U <0.0008	B 0.0008	B 0.00111	B 0.00133	B 0.00135	U <0.0008	B 0.00173	B 0.00129	B 0.00175	B 0.00119	U <0.0008	U <0.0008
Cyanide, total	M335.4 - Colorimet	tmg/L	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	B 0.0038	U <0.003	U <0.003	B 0.0041	U <0.003	U <0.003	U <0.003
Cyanide, WAD	SM4500-CN I,E-Col	mg/L	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003
Fluoride	SM4500F-C	mg/L	0.64	0.83	0.95	0.77	0.72	0.82	0.47	0.35	0.41	0.48	0.89	0.51
Gross Alpha	M900.0	pCi/L	0.12			6.2			1.9			1.8		
Gross Beta	M900.0	pCi/L	-20			0.79			6.6			5.3		
Hardness as CaCO3 (dissolved)	SM2340B - Calculat	. 0,	62	58	64	55	54	52	62	52	48	50	50	56
Hydroxide as CaCO3	SM2320B - Titratio	-	U <2	U <2	U <2	U <2	U <2	U <2	U <2	U <2	U <2	U <2	U <2	U <2
Iron, dissolved	M200.7 ICP M200.7 ICP	mg/L	B 0.107	B 0.1	B 0.113	B 0.137	0.165	0.265	0.401	0.239	0.216	0.167	0.16	B 0.138
Iron, total	M200.7 ICP M200.7 ICP	mg/L mg/L	0.305 0.363	0.294	0.812	0.74 0.636	0.643	0.567	1.41 1.48	0.803	0.673	0.907 0.845	0.272	0.537
Iron, total recoverable Lead, dissolved	M200.8 ICP-MS	-		11 <0 0001	11 <0 0001		11 <0 0001	11 <0 0001		11 <0 0001	U <0.0001		U <0.0001	U <0.0001
Lead, potentially dissolved	M200.8 ICP-MS	mg/L	B0.0001	0 <0.0001	0 <0.0001	B 0.00032	0 <0.0001	0 < 0.0001	0.00052	0 <0.0001	0 <0.0001	B 0.00044	0 <0.0001	0 <0.0001
Lead, total	M200.8 ICP-MS	mg/L		B 0.00012	B 0 00032		B 0 00032	B 0 00026		B 0 00038	B 0.00039	0.00057	U <0.0001	B 0.00026
Magnesium, dissolved	M200.7 ICP	mg/L	4.38	4.29	5.67	4.11	3.96	3.93	4.27	3.54	3.4	3.51	4.02	4.05
Magnesium, total	M200.7 ICP	mg/L	4.4	4.3	4.32	4.14	4.1	4.03	4.17	3.7	3.56	3.82	4.12	4.07
Manganese, dissolved	M200.7 ICP	mg/L	B 0.03	B 0.026	B 0.028	B 0.013	B 0.021	B 0.025	B 0.028	B 0.018	B 0.018	B 0.015	B 0.018	B 0.025
Manganese, total	M200.7 ICP	mg/L	B 0.038	B 0.036	0.068	0.06	B 0.049	B 0.043	0.175	0.055	B 0.041	0.068	B 0.024	B 0.049
Manganese, total recoverable	M200.7 ICP	mg/L	B 0.038			B 0.049			0.17			0.062		
Mercury, dissolved	M245.1 CVAA	mg/L	U <0.0002	U <0.0002	U <0.0002	U <0.0002	U <0.0002	U <0.0002	U <0.0002	U <0.0002	2 U <0.0002	U <0.0002	U <0.0002	U <0.0002
Mercury, total	M245.1 CVAA	0.									2 U <0.0002		U <0.0002	U <0.0002
Nickel, dissolved	M200.8 ICP-MS	-		U <0.008								U <0.0004	U <0.008	U <0.008
Nickel, total	M200.7 ICP	mg/L	U <0.008		U <0.008		U <0.008					U <0.008	U <0.008	U <0.008
Nitrate/Nitrite as N	M353.2 - H2SO4 pr	-	B 0.045	B 0.044	B 0.041	U <0.02	U <0.02	U <0.02	U <0.02	U <0.02	B 0.035	U <0.02	U <0.02	B 0.082
Nitrogen, ammonia	M350.1 Auto Salicy		U <0.05	U <0.05	U <0.05	U <0.05	B 0.053	U <0.05	U <0.05	U <0.05	U <0.05	U <0.05	U <0.05	U <0.05
Oil and Grease	1664A/B - Gravime	-	U <2	1.05	1 74	U <1.8	1.24	1 1 4	No Data	D 0 00	B O O	U <2	1 1 2	1.01
Potassium, total	M200.7 ICP	mg/L	B 0.75	1.05	1.24	1.11	1.24 86	1.14	B 0.96	B 0.98	B 0.9	1.27 78	1.13	1.01
Residue, Filterable (TDS) @180C Residue, Non-Filterable (TSS) @105C	SM2540C SM2540D	mg/L mg/L	82 U <5	102 U <5	96 B 14	92 B 8	86 B 8	100 U <5	92 H 23	94 B 5	76 B 9	78 B 13	96 U <5	80 B 12
Selenium, dissolved	M200.8 ICP-MS			U <0.0001								U <0.0001	U <0.0001	U <0.0001
Selenium, total	M200.8 ICP-MS	-									U <0.0001		U <0.0001	U <0.0001
Silica, total	M200.7 ICP	mg/L	13.3	9.3	12.3	12	12.8	11.3	13.2	13	10 <0.0001	13	11.9	12.9
Silver, dissolved	M200.8 ICP-MS	-									U <0.0001		U <0.0001	U <0.0001
Silver, potentially dissolved	M200.8 ICP-MS	-	U <0.0001			U <0.0001			U <0.0001			U <0.0001		2 5.0001
Silver, total	M200.8 ICP-MS	-			U <0.0001			U <0.0001			U <0.0001		U <0.0001	U <0.0001
Sodium, total	M200.7 ICP	mg/L	4.32	7.71	6.18	8.54	5.04	10.2	4.09	3.55	3.78	3.62	11	4.03
Sulfate	M300.0 - Ion Chror		6.63	16.4	15.5	16.1	7.61	16	3.42	H 2.32	3.08	2.21	16.6	4.33
Total Alkalinity	SM2320B - Titratio		70.6	51.7	71.2	57	54.7	51.6	61.3	55.4	47.8	57.5	48.7	56.4
i otar / altaninty					U <0.02	U <0.02	U <0.02	U <0.02	U <0.02	U <0.02	U <0.02	U <0.02	U <0.02	U <0.02
Zinc, dissolved	M200.7 ICP	mg/L	U <0.02	U <0.02	0 < 0.02	0 < 0.02	0 < 0.02	0 < 0.02	0 < 0.02	0 < 0.02	0 < 0.02	0 <0.02	0 < 0.02	
	M200.7 ICP M200.8 ICP-MS	mg/L mg/L	U <0.02 U <0.006	0 < 0.02	0 < 0.02	U <0.002	0 < 0.02	0 <0.02	U <0.002	0 <0.02	0 <0.02	B 0.0064	0 <0.02	
Zinc, dissolved		-											U <0.02	U <0.02

B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity
 H Analysis exceeded method hold time. pH is a field test with an immediate hold time

Monthly Water Quali 2022	· ·							Sar	nple Date					
ANALYTE	METHOD	UNITS	1/4/2022	2/1/2022	3/1/2022	4/6/2022	5/4/2022	6/1/2022	7/5/2022	8/1/2022	9/1/2022	10/3/2022	11/1/2022	12/5/2022
Aluminum, potentially dissolved	M200.8 ICP-MS	mg/L	0.0243			0.0782			0.0428			0.0667		
Arsenic, total	M200.8 ICP-MS	mg/L	B 0.00022			B 0.00025			B 0.00057			B 0.00046		
Bicarbonate as CaCO3	SM2320B - Titration	mg/L	91.1			72			84.8			79.4		
Cadmium, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.00005			U <0.00005			U <0.00005			U <0.00005		
Calcium, dissolved	M200.7 ICP	mg/L	25.5			21.3			25.2			21.2		
Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2			U <2			U <2			U <2		
Chloride	SM4500CI-E	mg/L	2.91			3.56			2.97			2.75		
Chromium, dissolved	M200.8 ICP-MS	mg/L	U <0.0005			U <0.0005			U <0.0005			U <0.0005		
Copper, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.0008			U <0.0008			B 0.00084			B 0.0009		
Cyanide, WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003	U <0.003
Fluoride	SM4500F-C	mg/L	0.74			0.77			0.68			0.57		
Gross Alpha	M900.0	pCi/L	0.46			2.5			2.4			1.7		
Gross Beta	M900.0	pCi/L	-15			1.6			3.7			4.6		
Hardness as CaCO3 (dissolved)	SM2340B - Calculatio	mg/L	85			72			84			71		
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2			U <2			U <2			U <2		
Iron, dissolved	M200.7 ICP	mg/L	0.269	0.207	0.213	0.269	0.365	0.495	0.589	0.393	0.403	0.374	0.425	0.394
Iron, total recoverable	M200.7 ICP	mg/L	0.664	0.635	1.18	0.896	0.752	1.17	1.25	1.15	0.761	1.09	0.952	0.742
Lead, potentially dissolved	M200.8 ICP-MS	mg/L	B 0.00011			B 0.00035			B 0.00025			B 0.00031		
Magnesium, dissolved	M200.7 ICP	mg/L	5.28			4.47			5.08			4.48		
Manganese, dissolved	M200.7 ICP	mg/L	0.168	0.156	0.181	0.124	0.065	0.121	0.084	B 0.043	B 0.048	0.053	0.058	0.125
Manganese, total recoverable	M200.7 ICP	mg/L	0.175	0.168	0.215	0.142	0.081	0.142	0.115	0.063	0.052	0.068	0.074	0.135
Mercury, total	M245.1 CVAA	mg/L	U <0.0002			U <0.0002			U <0.0002			U <0.0002		
Nickel, dissolved	M200.8 ICP-MS	mg/L	U <0.0004			U <0.0004			B 0.00045			U <0.0004		
Nitrogen, ammonia	M350.1 Auto Salicyla	mg/L	U <0.05			U <0.05			U <0.05			U <0.05		
Oil and Grease	1664A/B - Gravimetri	mg/L	U <2			U <1.8			No Data			U <2		
Potassium, total	M200.7 ICP	mg/L	1.06			1.19			1.19			1.61		
Residue, Non-Filterable (TSS) @10	0. SM2540D	mg/L	U <5			B 6			B 11			В 7		
Selenium, dissolved	M200.8 ICP-MS	mg/L	U <0.0001			U <0.0001			U <0.0001			U <0.0001		
Silica, total	M200.7 ICP	mg/L	14.7			14.3			13.5			13.2		
Silver, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.0002			U <0.0002			U <0.0002			U <0.0002		
Sodium, total	M200.7 ICP	mg/L	6.72			8.12			7.17			6.26		
Sulfate	M300.0 - Ion Chromat	mg/L	12.7	13.3	15.7	18.4	13.2	6.52	6.23	H 4.92	9.15	6.37	9.75	14.1
Total Alkalinity	SM2320B - Titration	mg/L	91.1			72			84.8			79.4		
Zinc, potentially dissolved	M200.8 ICP-MS	mg/L	U <0.006			U <0.006			U <0.006			B 0.0129		
Definitions:														

B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated

 ${\bf H}$ Analysis exceeded method hold time. ${\rm pH}$ is a field test with an immediate hold time

L Target analytte response was below the laboratory defined negative threshold

Monthly Water Quality Dat	Monthly Water Quality Data for M-19											
2022					S	ample Date						
ANALYTE	METHOD	UNITS	1/5/2022	2/1/2022	3/1/2022	4/7/2022	5/4/2022	6/1/2022	7/5/2022			
Calcium, total	M200.7 ICP	mg/L	22.3	22.4	21.1	21.1	20	19.8	17.8			
Copper, dissolved	M200.8 ICP-MS	5 mg/L	B 0.00099	B 0.00105	B 0.00097	B 0.0009	B 0.00087	U <0.0008	B 0.00092			
Fluoride	M300.0 - Ion C	hr mg/L	0.87	0.868	0.861	0.853	0.794	0.748	0.693			
Iron, dissolved	M200.7 ICP	mg/L	B 0.148	B 0.135	B 0.147	0.163	B 0.125	B 0.089	0.208			
Manganese, dissolved	M200.7 ICP	mg/L	0.24	0.237	0.264	0.237	0.144	0.119	0.082			
Residue, Filterable (TDS) @180C	SM2540C	mg/L	96	96	102	84	102	98	100			
Sulfate	M300.0 - Ion C	hr mg/L	9.11	8.06	8.74	9.71	12.5	10.7	11.6			

Monthly Water Quality Dat	a for M-19						
2022					Sample Date	9	
ANALYTE	METHOD	UNITS	8/1/2022	9/1/2022	10/3/2022	11/1/2022	12/5/2022
Calcium, total	M200.7 ICP	mg/L	19.3	17.6	20.3	18.3	18.6
Copper, dissolved	M200.8 ICP-MS	mg/L	0.00617	0.00226	B 0.00165	B 0.00131	B 0.00136
Fluoride	M300.0 - Ion Ch	r mg/L	H 0.826	0.803	0.832	0.819	0.811
Iron, dissolved	M200.7 ICP	mg/L	B 0.072	0.727	0.468	B 0.105	B 0.086
Manganese, dissolved	M200.7 ICP	mg/L	0.055	0.197	0.181	0.056	B 0.049
Residue, Filterable (TDS) @180C	SM2540C	mg/L	102	100	98	92	104
Sulfate	M300.0 - Ion Ch	r mg/L	H 11.4	5.78	6.42	7.63	7.48

B Analyte concentration detected at a value between MDL and PQL. The associated value is an

H Analysis exceeded method hold time. pH is a field test with an immediate hold time

L Target analytte response was below the laboratory defined negative threshold

Monthly Water Quality I	Monthly Water Quality Data for M-											
22 in 2022		Sample Date										
ANALYTE	METHOD	UNITS	1/5/2022	2/1/2022	3/1/2022	4/7/2022	5/4/2022	6/1/2022				
Calcium, total	mg/L	M200.7 ICP	32.1	32.5	31.6	32.8	32.3	31.8				
Copper, dissolved	mg/L	M200.8 ICP-MS	U <0.0008									
Fluoride	mg/L	M300.0 - Ion Chromat	1.39	1.39	1.38	1.42	1.4	1.35				
Iron, dissolved	mg/L	M200.7 ICP	B 0.063	B 0.071	B 0.07	U <0.06	B 0.074	B 0.063				
Manganese, dissolved	mg/L	M200.7 ICP	0.371	0.359	0.375	0.386	0.372	0.367				
Residue, Filterable (TDS)	(mg/L	SM2540C	134	136	146	134	142	128				
Sulfate	mg/L	M300.0 - Ion Chromat	10.9	10	10.9	12.5	12.2	10.8				

Monthly Water Quality Data for M-								
22 in 2022	Sample Date							
ANALYTE	METHOD	UNITS	7/5/2022	8/1/2022	9/1/2022	10/3/2022	11/1/2022	12/5/2022
Calcium, total	mg/L	M200.7 ICP	31.4	32.4	31.5	33.9	29	28.4
Copper, dissolved	mg/L	M200.8 ICP-MS	U <0.0008	0.00203	U <0.0008	U <0.0008	U <0.0008	U <0.0008
Fluoride	mg/L	M300.0 - Ion Chromat	1.24	H 1.36	1.24	1.3	1.18	1.3
Iron, dissolved	mg/L	M200.7 ICP	U <0.06	U <0.06	B 0.085	B 0.143	0.137	0.101
Manganese, dissolved	mg/L	M200.7 ICP	0.356	0.373	0.362	0.364	0.295	0.351
Residue, Filterable (TDS) (mg/L		SM2540C	144	134	134	146	128	136
Sulfate	mg/L	M300.0 - Ion Chromat	10.8	H 9.91	9.01	7.93	7.47	8.2

B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated

 ${\bf H}$ Analysis exceeded method hold time. ${\bf p}{\bf H}$ is a field test with an immediate hold time

L Target analytte response was below the laboratory defined negative threshold
Monthly Water Quality Data fo	or M-24 in							
2022					Sam	ple Date		
ANALYTE	METHOD	UNITS	1/5/2022	2/1/2022	3/1/2022	4/7/2022	5/4/2022	6/1/2022
Calcium, total	mg/L	M200.7 ICP	88.3	87.4	81.7	84.2	84	84.2
Copper, dissolved	mg/L	M200.8 ICP-MS	U <0.0008					
Fluoride	mg/L	M300.0 - Ion Chromat	0.792	B 0.882	0.812	0.747	0.804	B 0.827
Iron, dissolved	mg/L	M200.7 ICP	4.53	4.45	4.43	4.3	4.36	4.44
Manganese, dissolved	mg/L	M200.7 ICP	0.942	0.927	0.916	0.899	0.903	0.9
Residue, Filterable (TDS) @180C	mg/L	SM2540C	438	442	428	406	436	418
Sulfate	mg/L	M300.0 - Ion Chromat	167	145	153	160	169	143

Monthly Water Quality Data fo	r M-24 in							
2022					Sam	ple Date		
ANALYTE	METHOD	UNITS	7/5/2022	8/1/2022	9/1/2022	10/3/2022	11/1/2022	12/5/2022
Calcium, total	mg/L	M200.7 ICP	84.1	86.7	80.6	86	81.5	78.3
Copper, dissolved	mg/L	M200.8 ICP-MS	U <0.0008					
Fluoride	mg/L	M300.0 - Ion Chromat	0.758	H 0.796	B 0.763	B 0.638	B 0.834	B 0.808
Iron, dissolved	mg/L	M200.7 ICP	4.49	4.57	4.31	4.44	4.31	4.18
Manganese, dissolved	mg/L	M200.7 ICP	0.901	0.93	0.878	0.919	0.893	0.875
Residue, Filterable (TDS) @180C	mg/L	SM2540C	430	418	414	408	410	404
Sulfate	mg/L	M300.0 - Ion Chromat	146	h 145	138	140	140	134

- **B** Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
- **U** The material was analyzed for but was not detected above the level of the associated value

·	uality Data for Tailings							Comple D						
	2022		. /= /=			. /= /	- / . /	Sample D						
ANALYTE	METHOD	UNITS	1/5/2022	2/1/2022	3/1/2022	4///2022	5/4/2022	6/1/2022	7/5/2022	10/3/2022	8/1/2022	9/1/2022	11/1/2022	12/5/2022
Aluminum, dissolved	M200.7 ICP	mg/L	U <0.05						U <0.05	U <0.05				
Arsenic, dissolved	M200.8 ICP-MS	mg/L	U <0.0002						U <0.0002	U <0.0002				
Barium, dissolved	M200.7 ICP	mg/L	0.0513						0.0417	0.0487				
Bicarbonate as CaCO3	SM2320B - Titration	mg/L	190						155	158				
Cadmium, dissolved	M200.7 ICP	mg/L	U <0.008						U <0.008	U <0.008				
Calcium, total	M200.7 ICP	mg/L	95.2	69.5	79.8	96.2	70.3	70.4	73	83.3	77.9	76.9	77.1	75.7
Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2						U <2	U <2				
Chloride	M300.0 - Ion Chromat	mg/L	4.49						B 2.54	B 2.39				
Chromium, dissolved	M200.7 ICP	mg/L	U <0.2						U <0.2	U <0.2				
Copper, dissolved	M200.8 ICP-MS	mg/L	B 0.00086	B 0.00097	B 0.00104	B 0.00105	B 0.00098	U <0.0008	8 U <0.0008	U <0.0008	U <0.0008	U <0.0008	B 0.00089	B 0.00105
Copper, dissolved	M200.7 ICP	mg/L	U <0.01						U <0.01	U <0.01				
Cyanide, WAD	SM4500-CN I,E-Colori	mg/L	U <0.003						U <0.003	U <0.003				
Fluoride	M300.0 - Ion Chromat	mg/L	0.957	0.915	0.887	0.875	0.933	B 0.876	B 0.831	B 0.873	H 0.867	B 0.812	0.828	0.842
Gross Alpha	M900.0	pCi/L	-1.3						1.7	1.1				
Gross Beta	M900.0	pCi/L	-15						3.7	1.7				
Hardness as CaCO3 (total)	SM2340B - Calculatio	mg/L	303						230	267				
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2						U <2	U <2				
Iron, dissolved	M200.7 ICP	mg/L	U <0.06	U <0.06	U <0.06	U <0.06	U <0.06	U <0.06						
Lead, dissolved	M200.7 ICP	mg/L	U <0.03						U <0.03	U <0.03				
Magnesium, total	M200.7 ICP	mg/L	16.4						12	14.3				
Manganese, dissolved	M200.7 ICP	mg/L	0.301	0.177	0.241	0.308	0.172	0.155	0.128	0.116	0.121	0.119	0.101	0.137
Mercury, dissolved	M245.1 CVAA	mg/L	U <0.0002						U <0.0002	U <0.0002				
Nickel, dissolved	M200.8 ICP-MS	mg/L	U <0.0004						U <0.0004	U <0.0004				
Potassium, total	M200.7 ICP	mg/L	2.59						2.13	2.51				
Residue, Filterable (TDS)														
@180C	SM2540C	mg/L	416	336	368	412	314	302	328	342	338	342	340	340
Selenium, dissolved	M200.8 ICP-MS	mg/L	B 0.00015						B 0.00014	B 0.0001				
Silica, total	M200.7 ICP	mg/L	16.8						14.2	17.2				
Silver, dissolved	M200.8 ICP-MS	mg/L	U <0.0001						U <0.0001	U <0.0001				
Sodium, total	M200.7 ICP	mg/L	20.1						13.6	14.9				
Sulfate	M300.0 - Ion Chromat	mg/L	U <0.4	87.3	121	154	94.6	79	91	101	H 96.7	99.5	108	105
Total Alkalinity	SM2320B - Titration	mg/L	190						155	158				
Zinc, dissolved	M200.7 ICP	mg/L	U <0.02						U <0.02	U <0.02				
Definitions:														

B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity

H Analysis exceeded method hold time. pH is a field test with an immediate hold time

L Target analytte response was below the laboratory defined negative threshold

U The material was analyzed for but was not detected above the level of the associated value

•	uality Data for M-26 022			Sample	e Date	
ANALYTE	METHOD	UNITS	1/10/2022			10/17/2022
Calcium, total	M200.7 ICP	mg/L	32.6	U <0.1	31.7	32.2
Copper, dissolved	M200.8 ICP-MS	mg/L	0.00607	U <0.0008	U <0.0008	U <0.0008
Fluoride	M300.0 - Ion Chromat	mg/L	H 0.799	0.796	H 0.768	0.784
Iron, dissolved	M200.7 ICP	mg/L	0.445	0.413	0.448	0.42
Manganese, dissolved	M200.7 ICP	mg/L	0.316	0.305	0.321	0.322
Residue, Filterable (TDS)						
@180C	SM2540C	mg/L	142	146	144	134
Sulfate	M300.0 - Ion Chromat	mg/L	H 7.45	9.85	H 9.33	7.91
Monthly Water Qualit	y Data for M-22 in 2022					
				Sample		
ANALYTE	METHOD	UNITS	1/10/2022			10/17/2022
Calcium, total	M200.7 ICP	mg/L	43.7	42.3	42.6	42.4
Copper, dissolved	M200.8 ICP-MS	mg/L	U <0.0008	U <0.0008		U <0.0008
Fluoride	M300.0 - Ion Chromat	mg/L	H 1.38	1.35	1.33	1.35
Iron, dissolved Manganese, dissolved	M200.7 ICP	mg/L	0.335 0.166	0.297 0.168	0.377 0.169	0.331 0.164
Residue, Filterable (TDS)	M200.7 ICP	mg/L	0.100	0.108	0.169	0.104
@180C	SM2540C	mg/L	186	194	190	174
Sulfate	M300.0 - Ion Chromat	mg/L	H 32.3	35	30.3	26.8
			11 52.5	33	50.5	20.0
Monthly Water Qualit	y Data for M-16 in 2022			Sample	• Date	
ANALYTE	METHOD	UNITS	1/10/2022			10/17/2022
Calcium, total	M200.7 ICP	mg/L	18.8	17.8	9.53	17.3
Copper, dissolved	M200.8 ICP-MS	mg/L	0.00276	U <0.0008	U <0.0008	B 0.00093
Fluoride	M300.0 - Ion Chromat	mg/L	H 0.6	0.59	0.581	0.597
Iron, dissolved	M200.7 ICP	mg/L	B 0.067	U <0.06	B 0.085	B 0.068
Manganese, dissolved	M200.7 ICP	mg/L	U <0.01	U <0.01	U <0.01	U <0.01
Residue, Filterable (TDS)						
@180C	SM2540C	mg/L	106	92	86	86
Sulfate	M300.0 - Ion Chromat	mg/L	H 10.1	9.38	8.9	7.26
Definitions:						
E					d PQL. The	
			an estimated			
F	Analysis exceeded		ate hold time. pH is	a field test v	with an	
I	Target analytte respon		elow the laboration and the laboration of the la	atory defined	negative	
U	J The material was analy			octed above t	he level of	
L L	• The material was alldly					

the associated value

ANALYTE METHOD UNITS 1/10/2022 4/11/2022 7/25/2022 10/25/2022 Aluminum, dissolved M200.7 ICP mg/L U <0.0002 U <0.0002 U <0.0002 Bicarbonate as CaCO3 SM2320B - Titration mg/L 0.0409 0.0429 0.0425 Bicarbonate as CaCO3 SM2320B - Titration mg/L 21.2 21.7 22.1 22.2 I < 22.3 Carbonate as CaCO3 SM2320B - Titration mg/L U <2.0 U <0.002 U <2.0 U <2.0 U <2.0 U <2.0 U <2.0 U <0.003 U <0.003	Monthly Water Quality	Data for M-34 in 2022					
Aluminum, dissolved M200.7 ICP mg/L U <0.05 U <0.05 U <0.05 Arsenic, dissolved M200.8 ICP-MS mg/L U <0.0002							
Arsenic, dissolvedM200.8 ICP-MSmg/LU <0.0002U <0.0002U <0.0029Birarum, dissolvedM200.7 ICPmg/L81.370.187.5Cadmium, dissolvedM200.7 ICPmg/L21.221.722.122.3Calcium, totalM200.7 ICPmg/L21.221.722.122.3Carbonate as CaCO3SM3230B - Titrationmg/LU <0.02					4/11/2022		
Barium, dissolved M200.7 ICP mg/L 0.0409 0.0429 0.0429 Bicarbonate as CaCO3 SM2320B - Titration mg/L 81.3 70.1 87.5 Cadmium, dissolved M200.7 ICP mg/L U <0.008	•						
Bicarbonate as CaCO3 SM2320B - Titration mg/L 81.3 70.1 87.5 Cadmium, dissolved M200.7 ICP mg/L U <0.008	•		-				
Cadmium, dissolved M200.7 ICP mg/L U <0.008 U <0.008 U <0.008 Calcium, total M200.7 ICP mg/L 21.2 21.7 22.1 22.3 Carbonate as CaCO3 SM3320B - Titration mg/L U <2	Barium, dissolved	M200.7 ICP	mg/L				
Calcium, total M200.7 ICP mg/L 21.2 21.7 22.1 22.3 Carbonate as CaCO3 SM2320B - Titration mg/L U <2	Bicarbonate as CaCO3	SM2320B - Titration	mg/L	81.3		70.1	87.5
Carbonate as CaCO3SM2320B - Titration M300.0 - Ion Chromat mg/L $U < 2$ $U < 2$ $U < 2$ $U < 2$ ChlorideM300.0 - Ion Chromat M200.7 ICPmg/L 2.22 $H 2.13$ 2.11 Chromium, dissolvedM200.7 ICPmg/L $U < 0.02$ $U < 0.02$ $U < 0.02$ Copper, dissolvedM200.7 ICPmg/L $U < 0.01$ $U < 0.008$ $U < 0.01$ $U < 0.03$ Cyanide, WADSM4500-CN I,E-Colorimg/L $U < 0.003$ $U < 0.03$ $U < 0.03$ FluorideM300.0 - Ion Chromatmg/L $H 0.501$ 0.49 $H 0.485$ 0.468 Gross AlphaM900.0pCi/L 1.2 1.5 3.2 Gross BetaM900.0pCi/L 0.5 1.4 3.7 Hardness as CaCO3 (total)SM2320B - Titrationmg/L $U < 2.006$ $U < 0.22$ $U < 2$ Iron, dissolvedM200.7 ICPmg/L $U < 0.06$ $U < 0.06$ $U < 0.06$ $U < 0.06$ Lead, dissolvedM200.7 ICPmg/L $U < 0.002$ $U < 0.002$ $U < 0.002$ $U < 0.002$ Magnesium, totalM200.7 ICPmg/L $U < 0.0002$ $U < 0.0002$ $U < 0.002$ $U < 0.002$ Negrey, dissolvedM200.7 ICPmg/L $U < 0.0004$ $U < 0.0002$ $U < 0.002$ Negrey, dissolvedM200.7 ICPmg/L $U < 0.0004$ $U < 0.0002$ $U < 0.002$ Nickel, dissolvedM200.8 ICP-MSmg/L $U < 0.0004$ $U < 0.0004$ $U < 0.0004$ Potassium, totalM200.7 ICP <td>Cadmium, dissolved</td> <td>M200.7 ICP</td> <td>mg/L</td> <td>U <0.008</td> <td></td> <td>U <0.008</td> <td>U <0.008</td>	Cadmium, dissolved	M200.7 ICP	mg/L	U <0.008		U <0.008	U <0.008
Chloride M300.0 - lon Chromat mg/L 2.22 H 2.13 2.11 Chromium, dissolved M200.7 ICP mg/L U <0.02	Calcium, total	M200.7 ICP	mg/L	21.2	21.7	22.1	22.3
Chromium, dissolved M200.7 ICP mg/L U <0.02 U <0.02 U <0.02 U <0.02 Copper, dissolved M200.7 ICP mg/L U <0.01	Carbonate as CaCO3	SM2320B - Titration	mg/L	U <2		U <2	U <2
Copper, dissolved M200.7 ICP mg/L U <0.01 U <0.0008 U <0.01 U <0.03 Cyanide, WAD SM4500-CN I,E-Colori mg/L U <0.003	Chloride	M300.0 - Ion Chromat	mg/L	2.22		H 2.13	2.11
Cyanide, WAD SM4500-CN I,E-Colori mg/L U <0.003 U <0.003 U <0.003 Fluoride M300.0 - Ion Chromat mg/L H 0.501 0.49 H 0.485 0.468 Gross Alpha M900.0 pCi/L 1.2 1.5 3.2 Gross Beta M900.0 mg/L 0.5 1.4 3.7 Hardness as CaCO3 (total) SM2340B - Calculatio mg/L 0<0.0	Chromium, dissolved	M200.7 ICP	mg/L	U <0.02		U <0.02	U <0.02
Fluoride M300.0 - Ion Chromat mg/L H 0.501 0.49 H 0.485 0.468 Gross Alpha M900.0 pCi/L 1.2 1.5 3.2 Gross Beta M900.0 pCi/L 0.5 1.4 3.7 Hardness as CaCO3 (total) SM2340B - Calculatio mg/L 74 76 78 Hydroxide as CaCO3 SM2320B - Titration mg/L U <0.6	Copper, dissolved	M200.7 ICP	mg/L	U <0.01	U <0.0008	U <0.01	U <0.01
Gross Alpha M900.0 pCi/L 1.2 1.5 3.2 Gross Beta M900.0 pCi/L 0.5 1.4 3.7 Hardness as CaCO3 (total) SM2340B - Calculatio mg/L 74 76 78 Hydroxide as CaCO3 SM2320B - Titration mg/L U <2	Cyanide, WAD	SM4500-CN I,E-Colori	mg/L	U <0.003		U <0.003	U <0.003
Gross Beta M900.0 pCi/L 0.5 1.4 3.7 Hardness as CaCO3 (total) SM2340B - Calculatio mg/L 74 76 78 Hydroxide as CaCO3 SM2320B - Titration mg/L U <2	Fluoride	M300.0 - Ion Chromat	mg/L	H 0.501	0.49	H 0.485	0.468
Hardness as CaCO3 (total)SM2340B - Calculatiomg/L747678Hydroxide as CaCO3SM2320B - Titrationmg/LU <2	Gross Alpha	M900.0	pCi/L	1.2		1.5	3.2
Hydroxide as CaCO3SM2320B - Titrationmg/LU <2U <2U <2Iron, dissolvedM200.7 ICPmg/LU <0.06	Gross Beta	M900.0	pCi/L	0.5		1.4	3.7
Iron, dissolvedM200.7 ICPmg/LU <0.06U <0.06U <0.06U <0.06U <0.06Lead, dissolvedM200.7 ICPmg/L5.175.055.45Manganese, dissolvedM200.7 ICPmg/L0.2080.2060.2210.216Mercury, dissolvedM205.1 CVAAmg/LU <0.002	Hardness as CaCO3 (total)	SM2340B - Calculatio	mg/L	74		76	78
Lead, dissolved M200.7 ICP mg/L U <0.03 U <0.03 U <0.03 Magnesium, total M200.7 ICP mg/L 5.17 5.05 5.45 Manganese, dissolved M200.7 ICP mg/L 0.208 0.206 0.221 0.216 Mercury, dissolved M200.7 ICP mg/L U <0.0002	Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2		U <2	U <2
Magnesium, totalM200.7 ICPmg/L5.175.055.45Manganese, dissolvedM200.7 ICPmg/L0.2080.2060.2210.216Mercury, dissolvedM245.1 CVAAmg/LU <0.0002	Iron, dissolved	M200.7 ICP	mg/L	U <0.06	U <0.06	U <0.06	U <0.06
Marganese, dissolvedM200.7 ICPmg/L0.2080.2060.2210.216Mercury, dissolvedM245.1 CVAAmg/LU <0.0002	Lead, dissolved	M200.7 ICP	mg/L	U <0.03		U <0.03	U <0.03
Mercury, dissolved M245.1 CVAA mg/L U <0.0002 U <0.0002 U <0.0002 Nickel, dissolved M200.8 ICP-MS mg/L U <0.0004	Magnesium, total	M200.7 ICP	mg/L	5.17		5.05	5.45
Nickel, dissolvedM200.8 ICP-MSmg/LU <0.0004U <0.0004B 0.00041Potassium, totalM200.7 ICPmg/LB 0.791.02B 0.88Residue, Filterable (TDS)@180CSM2540Cmg/L112118116H 134Selenium, dissolvedM200.8 ICP-MSmg/LU <0.0001	Manganese, dissolved	M200.7 ICP	mg/L	0.208	0.206	0.221	0.216
Potassium, total Residue, Filterable (TDS)M200.7 ICPmg/LB 0.791.02B 0.88@180CSM2540Cmg/L112118116H 134Selenium, dissolvedM200.8 ICP-MSmg/LU <0.0001	Mercury, dissolved	M245.1 CVAA	mg/L	U <0.0002		U <0.0002	U <0.0002
Residue, Filterable (TDS) @180C SM2540C mg/L 112 118 116 H 134 Selenium, dissolved M200.8 ICP-MS mg/L U <0.0001	Nickel, dissolved	M200.8 ICP-MS	mg/L	U <0.0004		U <0.0004	B 0.00041
@180C SM2540C mg/L 112 118 116 H 134 Selenium, dissolved M200.8 ICP-MS mg/L U <0.0001	Potassium, total	M200.7 ICP	mg/L	B 0.79		1.02	B 0.88
Selenium, dissolved M200.8 ICP-MS mg/L U <0.0001 U <0.0001 U <0.0001 Silica, total M200.7 ICP mg/L 14.8 15.8 15.7 Silver, dissolved M200.8 ICP-MS mg/L U <0.0001	Residue, Filterable (TDS)						
Silica, total M200.7 ICP mg/L 14.8 15.8 15.7 Silver, dissolved M200.8 ICP-MS mg/L U <0.0001	@180C	SM2540C	mg/L	112	118	116	H 134
Silver, dissolved M200.8 ICP-MS mg/L U <0.0001 U <0.0001 U <0.0001 Sodium, total M200.7 ICP mg/L 7.75 7.72 7.6 Sulfate M300.0 - Ion Chromat mg/L H15.4 17.9 H 17 16.9 Total Alkalinity SM2320B - Titration mg/L 81.3 70.1 87.5	Selenium, dissolved	M200.8 ICP-MS	mg/L	U <0.0001		U <0.0001	U <0.0001
Sodium, total M200.7 ICP mg/L 7.75 7.72 7.6 Sulfate M300.0 - Ion Chromat mg/L H 15.4 17.9 H 17 16.9 Total Alkalinity SM2320B - Titration mg/L 81.3 70.1 87.5	Silica, total	M200.7 ICP	mg/L	14.8		15.8	15.7
Sulfate M300.0 - Ion Chromat mg/L H 15.4 17.9 H 17 16.9 Total Alkalinity SM2320B - Titration mg/L 81.3 70.1 87.5	Silver, dissolved	M200.8 ICP-MS	mg/L	U <0.0001		U <0.0001	U <0.0001
Total AlkalinitySM2320B - Titrationmg/L81.370.187.5	Sodium, total	M200.7 ICP	mg/L	7.75		7.72	7.6
	Sulfate	M300.0 - Ion Chromat	mg/L	H 15.4	17.9	H 17	16.9
Zinc dissolved M200.7 ICP mg/L 11 < 0.02 11 < 0.02 11 < 0.02	Total Alkalinity	SM2320B - Titration	mg/L	81.3		70.1	87.5
	Zinc, dissolved	M200.7 ICP	mg/L	U <0.02		U <0.02	U <0.02

В	Analyte concentration detected at a value between MDL and PQL.
	The associated value is an estimated quantity

- **H** Analysis exceeded method hold time. pH is a field test with an immediate hold time
- L Target analytte response was below the laboratory defined negative threshold
 - U The material was analyzed for but was not detected above the level of the associated value

Monthly Water Qu 20	•			Samp	le Date	
ANALYTE	METHOD	UNITS	1/10/2022			10/20/2022
Aluminum, dissolved	M200.7 ICP	mg/L	U <0.05		U <0.05	U <0.05
Arsenic, dissolved	M200.8 ICP-MS	mg/L	U <0.0002		U <0.0002	U <0.0002
Barium, dissolved	M200.7 ICP	mg/L	0.123		0.126	0.125
Bicarbonate as CaCO3	SM2320B - Titration	mg/L	226		209	221
Cadmium, dissolved	M200.7 ICP	mg/L	U <0.008		U <0.008	U <0.008
Calcium, total	M200.7 ICP	mg/L	70.6	73.5	71.1	73.1
Carbonate as CaCO3	SM2320B - Titration	mg/L	B 10.4		U <2	U <2
Chloride	M300.0 - Ion Chromat	mg/L	3.11		H 3.05	2.97
Chromium, dissolved	M200.7 ICP	mg/L	U <0.02		U <0.02	U <0.02
Copper, dissolved	M200.7 ICP	mg/L	U <0.01	U <0.0008	U <0.01	U <0.01
Cyanide, WAD	SM4500-CN I,E-Colori	mg/L	U <0.003		U <0.003	U <0.003
Fluoride	M300.0 - Ion Chromat	mg/L	H 0.963	0.959	H 0.93	0.919
Gross Alpha	M900.0	pCi/L	1.7		0.27	-0.11
Gross Beta	M900.0	pCi/L	5.4		1.5	4.3
Hardness as CaCO3 (total)	SM2340B - Calculatio	mg/L	217		214	223
Hydroxide as CaCO3	SM2320B - Titration	mg/L	U <2		U <2	U <2
Iron, dissolved	M200.7 ICP	mg/L	1.11	1.04	1.01	1.17
Lead, dissolved	M200.7 ICP	mg/L	U <0.03		U <0.03	U <0.03
Magnesium, total	M200.7 ICP	mg/L	9.84		8.96	9.86
Manganese, dissolved	M200.7 ICP	mg/L	0.826	0.819	0.858	0.867
Mercury, dissolved	M245.1 CVAA	mg/L	U <0.0002		U <0.0002	U <0.0002
Nickel, dissolved	M200.8 ICP-MS	mg/L	U <0.0004		U <0.0004	U <0.0004
Potassium, total	M200.7 ICP	mg/L	1.64		1.73	1.67
Residue, Filterable (TDS)						
@180C	SM2540C	mg/L	312	306	312	H 316
Selenium, dissolved	M200.8 ICP-MS	mg/L	U <0.0001		U <0.0001	U <0.0001
Silica, total	M200.7 ICP	mg/L	28.8		26.3	29.5
Silver, dissolved	M200.8 ICP-MS	mg/L	U <0.0001		U <0.0001	U <0.0001
Sodium, total	M200.7 ICP	mg/L	22.1		20.9	21.2
Sulfate	M300.0 - Ion Chromat	mg/L	H 33.1	36.7	H 33.4	33.4
Total Alkalinity	SM2320B - Titration	mg/L	236		209	221
Zinc, dissolved	M200.7 ICP	mg/L	U <0.02		U <0.02	U <0.02

В	Analyte concentration detected at a value between MDL and PQL.
	The associated value is an estimated quantity
н	Analysis exceeded method hold time. pH is a field test with an
	immediate hold time

- L Target analytte response was below the laboratory defined negative threshold
- **U** The material was analyzed for but was not detected above the level of the associated value

Monthly Wate	er Quality Data for Col.					
2022				Sample	e Date	
ANALYTE	METHOD	UNITS	1/31/2022	4/27/2022	7/28/2022	10/31/2022
Calcium, total	M200.7 ICP	mg/L	523	543	526	522
Copper, total	M200.8 ICP-MS	mg/L	U <0.0008	U <0.0008	U <0.0008	U <0.0008
Cyanide, WAD	SM4500-CN I,E-Colori	mg/L	0.0128	0.0115	B 0.0032	H 0.0301
Iron, total	M200.7 ICP	mg/L	29.9	31.7	30.6	40.8
Sodium, total	M200.7 ICP	mg/L	1000	973	946	953
Zinc, total	M200.7 ICP	mg/L	U <0.02	U <0.02	U <0.02	U <0.02

Monthly Wat	ter Quality Data for LD					
	2022		Sample Date			
ANALYTE	METHOD	UNITS	1/31/2022	4/27/2022	7/28/2022	10/31/2022
Calcium, total	M200.7 ICP	mg/L	520	527	511	490
Copper, total	M200.8 ICP-MS	mg/L	0.045	0.052	0.0493	0.0645
Cyanide, WAD	SM4500-CN I,E-Colori	mg/L	U <0.003	B 0.0031	B 0.0032	U <0.003
Iron, total	M200.7 ICP	mg/L	B 0.068	U <0.06	B 0.076	U <0.06
Sodium, total	M200.7 ICP	mg/L	1050	1000	1000	994
Zinc, total	M200.7 ICP	mg/L	U <0.02	U <0.02	U <0.02	U <0.02

B Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity

H Analysis exceeded method hold time. pH is a field test with an immediate hold time

L Target analytte response was below the laboratory defined negative threshold

U The material was analyzed for but was not detected above the level of the associated value

APPENDIX C DMR's, BMP, and WET Testing Reports

Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

April 26, 2022

Colorado Department of Public Health and Environment Water Quality Control Division Attn: WQDC-B2 – DMR Receipt 4300 Cherry Creek Drive Denver, CO 80246-1530

Re: Battle Mountain Resources, Inc. San Luis Project - San Luis, Colorado First Quarter 2022 – DMR's, BMP and WET Testing Reports CDPHE CDPS Permit No. CO0045675

Dear Sir or Madame:

Please find the enclosed Battle Mountain Resources, Inc. "San Luis Project" (Permit No. CO0045675) Colorado Department of Public Health and Environment-Colorado Discharge Permit System (CDPS) Best Management Practices (BMP) report for permitted outfall 002 for the first quarter 2022. The quarterly BMP report provides the required data associated with groundwater well elevations, the quarterly potentiometric surface map and groundwater well chemistry.

In addition, the first quarter 2022 Discharge Monitoring Reports (DMRs) were submitted for each of the permitted water treatment plant discharges in the NetDMR System and the WET Testing Reports were attached to the appropriate DMR submittal in NetDMR. These permitted discharges consist of water treatment plant Discharge Numbers 001-A and 001-B. During the quarter, the maximum 30-day average flow was 0.23 million gallons of water discharged per day, therefore the applicable permit criteria for the reporting period is associated with discharge number 001-B.

Should any questions arise or if I can be of any assistance providing clarification, please call me at (719) 379-0538.

Sincerely,

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File Devon Horntvedt, Newmont USA Limited Lawrence Fiske, Newmont USA Limited Tim Runnells, Engineering Analytics Alan Fosdick, Engineering Analytics

Battle Mountain Resources, Inc. San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

April 26, 2022

Colorado Department of Public Health and Environment Water Quality Control Division Attn: WQDC-B2 – DMR Receipt 4300 Cherry Creek Drive Denver, CO 80246-1530

Re: Battle Mountain Resources, Inc. San Luis Project First Quarter 2022 BMP Report CDPHE CDPS Permit No. CO0045675

Dear Sir or Madame:

In accordance with and compliance of the permit limitations and permit terms and conditions contained in Part I, Section 5 <u>Discharge Point 002</u>: (Permit Limitations, Best Management Practices, and Schedule of Compliance of the *State of Colorado Authorization to Discharge Under the Colorado Discharge Permit System*, Battle Mountain Resources, Inc. submits the following *Quarterly Best Management Practices Report*.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 62.4, and the Colorado Discharge Permit System Regulations, Sections 61.8(2), 61.8(3)(n), and 61.8(3)(r), 5 C.C.R. 1002-61, the permittee shall continue to implement the following limitations, compliance schedules, and Best Management Practices (BMPs).

The attainment of applicable water quality standards will be implemented and evaluated through the application of the following limitations, compliance schedules, and BMPs that are designed to monitor and control the groundwater quality and quantity discharging from the West Pit to the Rito Seco alluvial aquifer.

Specifically, the limitations, compliance schedules, and BMPs are those activities that address contaminated groundwater that may flow into the Rito Seco. This includes: (1) the potential flow of the affected groundwater from the West Pit that, in the past, manifested itself in the formation of the surface seeps along the arroyo sidewall of the Rito Seco, and (2) the plume of affected groundwater within the Rito Seco alluvial aquifer downgradient of the West Pit that flows along the naturally occurring hydraulic gradient and that may flow into the Rito Seco. The activities will include the following specific requirements:

 The elevation of the groundwater table in the vicinity of the West Pit shall be measured on a weekly basis at the following locations: (i) the West Pit backfill wells BF-4 and BF-5 and (ii) the Rito Seco alluvial wells M-16 and M-20, as shown in Figure 3 of the permit, for purposes of determining the performance of the "pump and treat" system that regulates the flow and quality of the groundwater in the seepage front. The permittee shall also determine on a quarterly basis the elevations of the groundwater table at BF-3, BF-4, BF-5, BF-6, M-11R, M-16, M-17, M-18, M-19, M-20, M-21, M-22, M-23, M-24, M-25, M-26, M-27, M-28, M-29, M-30, M-31, M-32, and M-33 for the purpose of developing a groundwater potentiometric map as monitoring confirmation of the groundwater flow direction. The quarterly data regarding depth to groundwater and groundwater potentiometric surface map will be submitted to the WQCD with the BMP report as described.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the weekly West Pit backfill and alluvial wells as required under Paragraph 1 of the specific requirements. Measurements obtained for the weekly West Pit backfill wells (BF-4 and BF-5R) and alluvial wells (M-16 and M-20) are shown in Table 1. The quarterly groundwater elevations required under Paragraph 1 were also measured and are shown in Table 2. A potentiometric surface map, developed by Engineering Analytics, is shown in Figure 1. The groundwater table elevations and potentiometric map confirm that the groundwater flow gradient during the first quarter of 2022 was from the Rito Seco to the West Pit. No corrective action is required under Paragraph 1 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
	01/05/2022	8579.26
	01/12/2022	8579.22
	01/19/2022	8579.24
	01/26/2022	8579.25
	02/02/2022	8579.30
	02/09/2022	8578.22
BF-4	02/16/2022	8579.27
	02/23/2022	8579.31
	03/02/2022	8579.30
	03/09/2022	8579.29
	03/16/2022	8579.28
	03/23/2022	8579.35
	03/30/2022	8579.30
	01/05/2022	8579.07
	01/12/2022	8579.03
	01/19/2022	8579.05
	01/26/2022	8579.07
	02/02/2022	8579.07
	02/09/2022	8579.02
BF-5R	02/16/2022	8579.08
	02/23/2022	8579.08
	03/02/2022	8579.08
	03/09/2022	8579.11
Γ	03/16/2022	8579.10
	03/23/2022	8579.12
	03/30/2022	8579.08

Table 1 – Weekly Groundwater Elevations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
	01/05/2022	8600.79
	01/12/2022	8600.65
	01/19/2022	8600.59
	01/26/2022	8600.58
	02/02/2022	8600.58
	02/09/2022	8600.56
M-16	02/16/2022	8600.54
	02/23/2022	8600.53
	03/02/2022	8600.54
	03/09/2022	8600.56
	03/16/2022	8600.66
	03/23/2022	8600.71
	03/30/2022	8600.77
	01/05/2022	8579.63
	01/12/2022	8579.99
	01/19/2022	8579.97
	01/26/2022	8579.97
	02/02/2022	8579.94
	02/09/2022	8579.88
M-20	02/16/2022	8579.87
	02/23/2022	8579.91
	03/02/2022	8579.94
	03/09/2022	8580.01
	03/16/2022	8580.02
	03/23/2022	8580.06
	03/30/2022	8580.20

Table 1 – Weekly Groundwater Elevations (continued)

Table 2 – Quarterly Groundwater Elevations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
BF-3	01/31/2022	8578.01
BF-4	01/31/2022	8579.28
BF-5R	01/31/2022	8579.05
BF-6	01/31/2022	8578.98
M-11R	01/31/2022	8550.73
M-16	01/31/2022	8600.57
M-17	01/31/2022	8586.60
M-18	01/31/2022	8579.73
M-19	01/31/2022	8580.53
M-20	01/31/2022	8579.95
M-21	01/31/2022	8576.79
M-22	01/31/2022	8572.51
M-23	01/31/2022	8556.03
M-24	01/31/2022	8559.32
M-25	01/31/2022	8541.03
M-26	01/31/2022	8544.12
M-27	01/31/2022	DRY
M-28	01/31/2022	8579.89
M-29	01/31/2022	8580.83
M-30	01/31/2022	8608.43
M-31	01/31/2022	8550.36
M-32	01/31/2022	8528.83
M-33	01/31/2022	8535.15

2) The weekly groundwater table elevation data shall be tabulated and reported on the quarterly BMP reports, and the data will be used to evaluate compliance with the following permit limitations.

The groundwater table elevation, based on the average of all measured values for each calendar month in the West Pit backfill groundwater monitoring wells BF-4 and BF-5, must be equal to or lower than an elevation of 8582 feet above sea level (ft. amsl).

Compliance Action Taken: Battle Mountain Resources, Inc. measured the West Pit backfill monitoring wells (BF-4 and BF-5R) weekly and the measurements are shown in Table 1. The groundwater measurements for wells BF-4 and BF-5R were averaged by calendar month and the results are shown in Table 3. The January, February, March 2022 averages were below the 8582 ft. amsl required in Paragraph 2. No corrective action is required under the Paragraph 2 requirement and schedule compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Month (2022)	Number of Observations	Average Monthly Groundwater Elevation (ft amsl)
	January	4	8579.24
BF-4	February	4	8579.03
	March	5	8579.30
BF-5R	January	4	8579.06
	February	4	8579.06
	March	5	8579.10

Table 3 – Quarterly West Pit Backfill Monthly Average Groundwater Table Elevations

3) If the average monthly groundwater table elevation in the West Pit backfill for any calendar month, measured as described in the above paragraph, is greater than 8582 ft. amsl or the quarterly determination of the groundwater potentiometric surface map indicates that the flow of the groundwater is from the West Pit to the Rito Seco alluvium, the permittee shall verbally communicate such condition to WQCD within 24 hours of the determination of the condition (elevated West Pit backfill table or groundwater flow from the West Pit as indicated by the quarterly groundwater potentiometric surface map) and initiate the following compliance schedule.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the West Pit backfill monitoring wells (BF-4 and BF-5R) weekly and the calendar month average groundwater measurement elevations (Table 3) were below the 8582 ft. amsl required in Paragraph 2. The January 31, 2022, potentiometric surface map (Figure 1) shows the groundwater flow gradient was from the Rito Seco alluvium to the West Pit backfill. Therefore, site operations demonstrated the West Pit backfill groundwater level was maintained at or below an elevation of 8582 ft. amsl through the quarter. Therefore, no requirement(s) to initiate actions contained within the schedule of compliance for Section 5.3 is required.

4) The quality of groundwater in the vicinity of the West Pit shall be monitored on a monthly basis in the Rito Seco alluvial groundwater monitoring wells M-19, M-21, M-24 and M-11R for the purposes of monitoring the changes in the quality of the plume or affected groundwater in the Rito Seco alluvial aquifer. Groundwater quality in these monitoring wells will be analyzed for pH, temperature, total dissolved solids, calcium, sulfate, manganese, fluoride, copper, and iron for the purpose of evaluating the status of the groundwater quality in the downgradient groundwater plume. The groundwater quality data will be summarized and transmitted to the WQCD in the quarterly BMP report required under Part I, Section E.1 of this permit.

Compliance Action Taken: Battle Mountain Resources, Inc. collected monthly groundwater samples in the vicinity of the West Pit backfill area from Rito Seco alluvial monitoring wells M-19, M-21, M-24 and M-11R. No corrective action is required under the Paragraph 4 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Analyte	Reporting	Sample Monitoring Well Identifie				
Analyte	Units	Date	M-11R	M-19	M-21	M-24
		01/05/2022	6.98	6.40	6.67	6.75
рН	SU	02/01/2022	7.09	6.63	6.76	6.79
		03/01/2022	7.13	6.58	6.79	6.92
		01/05/2022	9.3	8.9	7.4	7.7
Temperature	°C	02/01/2022	8.7	8.8	7.8	8.0
_		03/01/2022	9.8	9.4	8.5	8.5
		01/05/2022	94.4	22.3	32.1	88.3
Calcium, Total	mg/L	02/01/2022	69.5	22.4	32.5	87.4
		03/01/2022	79.8	21.1	31.6	81.7
		01/05/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.00
Copper, Dissolved	mg/L	02/01/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.00
		03/01/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.00
		01/05/2022	0.957	0.870	1.39	0.792
Fluoride	mg/L	02/01/2022	0.915	0.868	1.39	LT 1.25
		03/01/2022	0.887	0.861	1.38	0.812
		01/05/2022	LT 0.15	0.158	LT 0.15	4.47
Iron, Dissolved	mg/L	02/01/2022	LT 0.15	LT 0.15	LT 0.15	4.45
		03/01/2022	LT 0.15	LT 0.15	LT 0.15	4.43
		01/05/2022	0.298	0.240	0.371	0.934
Manganese, Dissolved	mg/L	02/01/2022	0.177	0.237	0.359	0.927
-		03/01/2022	0.241	0.264	0.375	0.916
Sulfate		01/05/2022	*	9.09	10.9	167
	mg/L	02/01/2022	87.3	8.06	10.00	145
		03/01/2022	121	8.74	10.9	153
		01/05/2022	416	96	130	434
Total Dissolved Solids	mg/L	02/01/2022	336	96	136	442
	-	03/01/2022	368	102	146	428

Table 4 – Rito Seco Alluvial Groundwater Quality Summary

* = Sample analysis interpretation were determined to be incorrect and the obtained results were inconsistent with historical sulfate data. This sample could not be reanalyzed within holding times and the subsequent month sample was already collected prior to the laboratory reporting, so the sample was not recollected. Results from the February and March sampling events were consistent with previous historical results.

5) The historical seeps were caused by the plume of affected groundwater and may, in the future, also be caused by natural variation in the flow of groundwater in the vicinity of the area where the past seeps occurred. The permittee shall conduct a monthly visual inspection of the area of historical seeps and the permittee shall report any seepage flow that is associated with the area historic seepage expression, as is identified in Figure 2 of the permit. Results of the seep monitoring shall be tabulated and summarized in the quarterly BMP report.

If these inspections identified the occurrence of seeps, the permittee will be required to communicate verbally to the WQCD within 24 hours of the seepage observation, followed by written notification within 7 calendar days of the seepage observation. Verbal updates will then be provided to the WQCD every second day thereafter until the WQCD has made a determination regarding the status of the West Pit groundwater control system through the implementation of the following compliance schedule.

Compliance Action Taken: Battle Mountain Resources, Inc. performed monthly visual seepage expression inspections in the historic seepage area identified in Figure 2 of the permit. Visual observations during these inspections are shown in Table 5. No seepage expressions were observed in the historic seepage area during the first quarter of 2022. Therefore, no verbal or written notifications were required and the implementation of the compliance schedule was not required. No corrective action is required under the Paragraph 5 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Visual Inspection Date	Was Visual Observation of Seepage Determined in the Area of the Historic Seepage Expression	Comments
01/31/2022	No	All Dry
02/28/2022	No	All Dry
03/31/2022	No	All Dry

 Table 5 – Monthly Seepage Expression Inspection Tabulation

6) The BMP for the groundwater flow downgradient from the groundwater divide (see section VI.A.2 for the Rationale) that has been developed in the Rito Seco alluvial aquifer consists of a groundwater capture system in conjunction with groundwater table elevation control in the West Pit. The water management plan for the Rito Seco alluvial aquifer consists of pumping two groundwater capture wells (M-32 and M-33) located downgradient of the plume of affected groundwater. This action will allow flushing of constituents in the groundwater from the Rito Seco alluvial aquifer in that portion (plume) of the aquifer affected by previous flow of groundwater from the West Pit. Measurements of the groundwater table elevations will be taken on a weekly basis from M-32 and M-33. This data shall be tabulated and reported for outfall 002 on the quarterly BMP report, and the data will be used to evaluate compliance with the following permit limitation.

The groundwater table elevation, based on the average of all measured values for each calendar month at M-32 and M-33 in the Rito Seco alluvial aquifer, must be equal to or lower than an elevation of 8540 ft. amsl.

If the average monthly groundwater table elevations measured in the Rito Seco alluvial aquifer at M-32 and M-33 is greater than 8540 ft. amsl, the permitee shall initiate the following compliance schedule within 24 hours of the determination of groundwater table elevation exceedance.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the alluvial aquifer monitoring wells (M-32 and M-33) weekly and the resulting elevations are presented in Table 6. The groundwater elevations for wells M-32 and M-33 were averaged by calendar month and the results are shown in Table 6. The January, February, March 2022 averages were below the 8540 ft. amsl required under Paragraph 6. Therefore, site operations were in full compliance of Part I, Section 5.5 and there were no requirements(s) to initiate actions contained within the schedule of compliance for Section 5.5. No corrective action is required under Paragraph 6 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)	Month (2022)	Average Monthly Groundwater Elevation (ft amsl)
	01/05/2022	8531.25		
	01/12/2022	8531.95		
	01/19/2022	8529.79	January	8530.13
	01/26/2022	8528.82		
M-32	01/31/2022	8528.83		
IVI-52	02/02/2022	8528.96		
	02/09/2022	8528.94	February 8527.40	
	02/16/2022	8526.26		8527.40
	02/23/2022	8526.44		
	02/28/2022	8526.39		

Table 6 –	Weekly/Monthl	v Rito Seco Allı	uvial Aquifer /	Average Groundwa	ter Table Elevations
I able 0	v comy/month	y mill beev mill	u viai Aquiter A	a verage of ouna wa	

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)	Month (2022)	Average Monthly Groundwater Elevation (ft amsl)
	03/02/2022	8526.45		
	03/09/2022	8526.59		
M-32	03/16/2022	8527.08	March	8526.96
IVI-52	03/23/2022	8527.03	March	8320.90
	03/30/2022	8527.30		
	03/31/2022	8527.30		
	01/05/2022	8526.46		
	01/12/2022	8536.06		
	01/19/2022	8535.68	January	8533.71
	01/26/2022	8535.20	5	
	01/31/2022	8535.15		
	02/02/2022	8535.21		
	02/09/2022	8535.00		
M-33	02/16/2022	8532.09	February	8534.02
IVI-33	02/23/2022	8533.16		
	02/28/2022	8534.66		
	03/02/2022	8535.83		
	03/09/2022	8533.31		
	03/16/2022	8533.78	Manah	9522 54
	03/23/2022	8529.87	March	8532.54
	03/30/2022	8531.01		
	03/31/2022	8531.42		

Table 6 (Cont) – Weekly/Monthly Rito Seco Alluvial Aquifer Average Groundwater Table Elevations

7) The water quality of the Rito Seco will be assessed using surface water quality collected at RS-2, as shown in Figure 3. Surface water monitoring in the Rito Seco shall be conducted at RS-2 on a monthly basis and the laboratory analytical results shall be submitted to the WQCD in the quarterly BMP report. Water quality samples collected at RS-2 shall be analyzed for the following constituents: calcium, magnesium, sodium, potassium, ammonia, total dissolved solids, total hardness, pH, total suspended solids, cyanide (WAD and total), bicarbonate, alkalinity, chloride, sulfate, nitrate-nitrite, fluoride and the total and dissolved concentrations of aluminum, arsenic, barium, boron, cadmium, copper, chromium, iron, lead, manganese, mercury, nickel, selenium, silica, silver and zinc. The following compliance schedule shall be implemented in the event that any constituent exceeds the applicable water quality standards for the Rito Seco.

Compliance Action Taken: Battle Mountain Resources, Inc. collected monthly surface water samples in January, February, March 2022 at location RS-2, as shown in Figure 3 of the permit. Results of analyses performed on these samples are shown in Table 7. The results of the laboratory analytical testing show that the applicable water quality standards were met for the Rito Seco during the months of January, February, March 2022. Site operations were in full compliance of Part I, Section 5.7 and there was no requirement(s) to initiate actions contained within the schedule of compliance for Section 5.7. Scheduled compliance monitoring will continue unchanged next quarter.

Table 7 – RS-2 Surface Water Quality Results

Analyte	Reporting Units	01/04/2022	02/01/2022	03/01/2022
Alkalinity	mg/L as CaCO ₃	70.6	51.7	71.2
Aluminum, Dissolved	mg/L	LT 0.25	LT 0.25	LT 0.25
Aluminum, Total	mg/L	LT 0.25	LT 0.25	0.590
Ammonia as N	mg/L	LT 0.2	LT 0.2	LT 0.2
Arsenic, Dissolved	mg/L	LT 0.001	LT 0.001	LT 0.001
Arsenic, Total	mg/L	LT 0.001	LT 0.001	LT 0.001
Barium, Dissolved	mg/L	LT 0.035	LT 0.035	LT 0.035
Barium, Total	mg/L	LT 0.035	LT 0.035	LT 0.035
Bicarbonate as CaCO3	mg/L	70.6	51.7	71.2
Boron, Dissolved	mg/L	LT 0.1	LT 0.1	LT 0.1
Boron, Total	mg/L	LT 0.1	LT 0.1	LT 0.1
Cadmium, Dissolved	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Cadmium, Total	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Calcium, Total	mg/L	17.7	16.4	16.4
Carbonate as CaCO3	mg/L	LT 20	LT 20	LT 20
Chloride	mg/L	4.42	2.31	2.23
Chromium, Dissolved	mg/L	LT 0.002	LT 0.002	LT 0.002
Chromium, Total	mg/L	LT 0.002	LT 0.002	LT 0.002
Copper, Dissolved	mg/L	LT 0.002	LT 0.002	LT 0.002
Copper, Total	mg/L	LT 0.002	LT 0.002	LT 0.002
Cyanide, Total	mg/L	LT 0.01	LT 0.01	LT 0.01
Cyanide, WAD	mg/L	LT 0.01	LT 0.01	LT 0.01
Fluoride	mg/L	0.61	0.83	0.95
Hardness as CaCO3	mg/L	62.0	58	64
Iron, Dissolved	mg/L	LT 0.15	LT 0.15	LT 0.15
Iron, Total	mg/L	0.305	0.294	0.812
Lead, Dissolved	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Lead, Total	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Magnesium, Total	mg/L	4.40	4.30	4.32
Manganese, Dissolved	mg/L	LT 0.05	LT 0.05	LT 0.05
Manganese, Total	mg/L	LT 0.05	LT 0.05	0.068
Mercury, Dissolved	mg/L	LT 0.001	LT 0.001	LT 0.001
Mercury, Total	mg/L	LT 0.001	LT 0.001	LT 0.001
Nickel, Dissolved	mg/L	LT 0.001	LT 0.04	LT 0.04
Nickel, Total	mg/L	LT 0.04	LT 0.04	LT 0.04
Nitrate+Nitrite as N	mg/L	LT 0.1	LT 0.1	LT 0.1
рН	SU	7.22	7.25	7.20
Potassium, Total	mg/L	LT 1	1.05	1.24
Selenium, Dissolved	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Selenium, Total	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Silica, Total	mg/L	13.2	9.3	12.3
Silver, Dissolved	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Silver, Total	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Sodium, Total	mg/L	4.32	7.71	6.18
Sulfate	mg/L	6.57	16.4	15.5
Total Dissolved Solids	mg/L	82	102	96
Total Suspended Solids	mg/L	LT 20	LT 20	LT 20
Zinc, Dissolved	mg/L	LT 0.05	LT 0.05	LT 0.05
Zinc, Total	mg/L	LT 0.05	LT 0.05	LT 0.05

8) If any component of the groundwater control system is not performing within the limits set forth in this permit, the permittee will be required to initiate appropriate compliance schedule activities, including the preparation of a response plan, for any and all components of the groundwater control system that do not meet the applicable

requirements. The permittee shall also conduct weekly sampling at RS-2 until such time as the other compliance schedule activity(ies) have been completed.

Compliance Action Taken: As demonstrated by the information and data presented in this report, all components of the groundwater control system performed within the limits set forth in the permit. Therefore, site operations were in full compliance of Part I, Section 8 and there was no requirement(s) to initiate actions contained within the schedule of compliance for Section 8.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is to the best of my knowledge and belief, is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Julio Madrid	Signature:	Julio Fin
		-	1

Date: April 26, 2022





February 4, 2022

Julio Madrid Battle Mountain Resources, Inc. P.O. Box 310 San Luis, CO 81152

Dear Julio:

Enclosed is the report for chronic biomonitoring tests performed for Battle Mountain Resources, Inc. on effluent from the 001B outfall. There was no statistically significant toxicity to either test species at any effluent concentration. The effluent passes WET (Whole Effluent Toxicity) testing requirements for this sampling period.

If you have any questions or concerns, please do not hesitate to contact me at (303) 661-9324.

Best regards,

Haley h let

Haley West Laboratory Supervisor Enclosure(s): Invoice Report

REPORT OF CHRONIC BIOMONITORING TESTS CONDUCTED FOR BATTLE MOUNTAIN RESOURCES, INC. ON EFFLUENT FROM THE 001B OUTFALL

Prepared for:

Julio Madrid Battle Mountain Resources, Inc. P.O. box 310 San Luis, CO 81152

Prepared by:

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Chronic Toxicity Test Summary

Test:	 7-day static renewal using <i>Ceriodaphnia dubia</i> 7-day static renewal using fathead minnow (<i>Pimephales promelas</i>) 	
Client:	Battle Mountain Resources, Inc.	
Test Procedure Followed:	<i>Ceriodaphnia dubia</i> : EPA/821/R-02-013. Method 1002.0 (2002) fathead minnow: EPA/821/R-02-013. Method 1000.0 (2002)	
Sample Number:	422030.B	
Dilution Water:	moderately hard laboratory reconstituted water	
Test Organism Source:	SeaCrest Group	
Reference Toxicant:	Sodium Chloride	

Sample	Time of Collection	Date of Collection	Time of Receipt	Date of Receipt
Effluent 1	0600	01-24-2022	1100	01-24-2022
Effluent 2	0600	01-26-2022	1150	01-26-2022
Effluent 3	0600	01-28-2022	1130	01-28-2022

	Ceriodaphnia dubia	fathead minnow
Test Initiation Time	1600	1500
Test Initiation Date	01-24-2022	01-24-2022
Test Completion Time	1700	1400
Test Completion Date	01-30-2022	01-31-2022

Client: BMRI CO Site: 001B	D-0045675	SCG Project No.: 422030.B Project: Quarterly WET
Abst	ract with Result	8
Test Concentrations:	Control (0%),	13%, 26%, 52%, 76%, 100%
	10 for Cerioda	phnia dubia
Number of Organisms/Concentration:	40 for fathead	minnow
	10 for Cerioda	phnia dubia
Replicates at each Concentration:	4 for fathead m	innow

	Ceriodaphnia dubia	fathead minnow	
Test vessel size/Exposure volume	30ml/15ml	500ml/200ml	
Sub-lethal NOEL/IC25	100%/>100%	100%/>100%	
Pass/Fail Status	PASS	PASS	
Temperature Range (°C)	24.1 - 25.9	24.1 - 25.4	
Dissolved Oxygen Range (mg/L)	6.8 - 8.2	4.8 - 8.6	
pH Range	7.4 - 8.1	7.3 - 8.2	
	Control (<i>Cerio</i> /FHM)	Effluent Sample	
Hardness (mg/L as CaCO ₃)	96/88	43/52/61	
Alkalinity (mg/L as CaCO ₃)	63/64	14/15/13	
Total residual chlorine (mg/L)	< 0.01	< 0.01	
Total ammonia (mg/L as NH3)	<0.03	0.06/0.05/0.07	

INTRODUCTION

Biomonitoring provides an effective means by which the toxicity of discharges from municipal, industrial, and mining operations can be tested. Among the advantages of biomonitoring is the ability to test complex effluents containing a broad range of contaminants. Biomonitoring, when used in conjunction with chemical analyses, can generate data capable of identifying a much wider range of contaminants.

The Colorado Water Quality Control Division requires certain NPDES permittees to perform acute and/or chronic biomonitoring tests. The chronic test measures significant differences in lethality and in reproduction (*Ceriodaphnia dubia*) or growth (fathead minnow – *Pimephales promelas*) between control and effluent-exposed organisms.

The present report discusses the results of chronic biomonitoring tests conducted on effluent from the Battle Mountain Resources, Inc. 001B discharge. These tests were conducted in accordance with EPA and State of Colorado procedures in January 2022.

MATERIALS AND METHODS

Sample Collection

Two or three gallons of the effluent were collected on three separate dates as specified in Permit CO-0045675. Samples were delivered chilled to the SeaCrest lab where they were held at 0-6°C. Chain of custody forms showing sample collection and laboratory arrival times are included (Appendix 1).

Dilution Water

Laboratory reconstituted water was used as both the dilution water source and the control for the tests. Reconstituted water for the *Ceriodaphnia dubia* test was produced by adding sodium bicarbonate, calcium sulfate, magnesium sulfate, potassium chloride, and sodium selenate to deionized water. Reconstituted water for the fathead minnow test was produced by adding sodium bicarbonate, calcium sulfate, magnesium sulfate, and potassium chloride to deionized water.

Test Organisms

The biomonitoring test used *Ceriodaphnia dubia*, cultured in the SeaCrest laboratory. The organisms are cultured in brood culture boards from which individual females are monitored for survival and reproduction for periods of up to two weeks. Neonates less than 24-hours old, released from third or subsequent broods of eight or more within an 8-hour period, are collected from the brood chambers and used in tests. The animals are fed daily with a mixture of Yeast, Cereal Leaves, and Trout Chow (YCT), produced in-house. This is supplemented with cultured green algae *(Selenastrum capricornutum)* provided by Aquatic Biosystems.

Less than one-day-old fathead minnow, cultured in the laboratory, were also used in the test. Adult fish are maintained in 10-gallon aquaria where females deposit their eggs on the under-surface of split PVC pipe sections. The eggs are collected daily and transferred to aerated containers where they hatch after three to four days. The larval fish are fed newly hatched brine shrimp (*Artemia* sp.) at least twice per day.

In-house organisms are tested monthly in a reference toxicant test using sodium chloride to monitor overall health and test reproducibility (Appendix 4).

Test Procedures

Upon receipt at the lab, samples were analyzed for alkalinity, ammonia, chlorine, conductivity, dissolved oxygen, hardness, and pH.

Methods used in chemical analysis

Alkalinity	EPA 310.2	Hach 8203	I-2030-85.2
Ammonia	SM4500-NH3, C-E1997	ASTM D1426-08	
Chlorine	SM4500-CI D	Hach 10026	
Conductivity	SM2510		
Dissolved Oxygen	SM4500-O	Electrode: G-2001	Winkler (QC): B-F-2001
Hardness	SM2340 B or C	Hach 8213	
рН	SM4500-H+ B-2000		

The test followed procedures in EPA³ and CDPHE⁴ guidelines. Exposure concentrations included control (0%), 13%, 26%, 52%, 76%, and 100% mixtures, diluted with moderately hard laboratory reconstituted water.

Individual *Ceriodaphnia dubia* were placed in 30ml plastic containers containing approximately 15ml of exposure medium. Ten replicates at each concentration were used. The animals were fed daily with the YCT mixture and an equal volume of the green algae *(Selenastrum capricornutum)*. The exposure medium was changed daily in each container and the number of young released overnight were counted and recorded. Young were removed from the containers daily and discarded. Routine measurements were made each day of temperature, dissolved oxygen, and pH before and after the water changes.

Fathead minnow were exposed in 500ml plastic cups to which 250ml of media was replaced daily. Four replicates were used at each concentration. Ten fish, less than 24-hours old, were placed in each cup. The fish were monitored daily for survival and fed live brine shrimp at least twice per day. After seven days, the fish were removed from the cups, euthanized with isopropyl alcohol, and then placed in aluminum pans and dried in an oven for a minimum of six hours at 100°C. The pans were then weighed on a five-place analytical balance to determine the average dry weight of the fish from each replicate.

Data Analysis

Data from the tests were analyzed on a personal computer using the CETIS program (developed by Tidepool Scientific Software). Statistical tests used in the analyses are shown in Table 1. Test acceptability was determined using control survival and reproduction/growth criteria, concentration-response relationships, and percent minimum significant differences (USEPA ^{5,6}).

v	ariance	D	istribution	
Bartlett Equali	ty of Variance Test	Shapiro-Wi	lk W Normality Test	
	Statistical	Difference		
Species	Survival	Growth	Reproduction	IC ₂₅
Ceriodaphnia dubia	Fisher Exact/Bonferroni- Holm Test	N/A	Steel Many-One Rank Sum Test	ICp
fathead minnow	Steel Many-One Rank Sum Test	Dunnett Multiple Comparison Test	N/A	ICp

Table 1. Statistical methods used in testing for significant differences in test parameters.

RESULTS

Ceriodaphnia dubia Test Results

Test results for the *Ceriodaphnia dubia* are summarized in Table 2 and provided on the data sheets located in Appendix 2. Survival was 90% in the 100% effluent and ranged from 90% - 100% in the remaining effluent concentrations. Control survival was 100%. No statistically significant lethality was measured in any effluent concentration when compared to the control. The NOEL (No Observed Effect Level) for lethality was 100% and the LC₂₅ (Lethal Concentration 25) for lethality was >100%.

Average number of neonates was 14.7 in the 100% effluent concentration and ranged from 11.8 - 14.9 in the remaining effluent concentrations. Average number of neonates in the control was 15.7 for statistical analyses and test acceptability criteria. No statistically significant differences in the number of neonates were found between the control and any effluent concentration. The NOEL for reproduction was 100% and the IC₂₅ (Inhibition Concentration 25) for reproduction was >100%.

	Percent	Mean			Significant	Difference
Concentration	Survival	Neonates	Min.	Max.	Lethality	Reprod.
Control (0%)	100	15.7	9	20	1	110
13%	90	11.8	0	17		
26%	100	14.3	9	18		
52%	100	13.3	9	22		
76%	90	14.9	0	24		
100%	90	14.7	0	21		

Table 2. Summary of Ceriodaphnia dubia test results. An asterisk (*) der	notes a statistically
significant difference from the control.	

Fathead Minnow Test Results

Client: BMRI

Site: 001B

Fathead minnow results are summarized in Table 3 and are provided on data sheets in Appendix 3. Survival was 100% in the 100% effluent concentration and ranged from 95% - 100% in the remaining effluent concentrations. Control survival was 100%. No statistically significant lethality was measured in any effluent concentration when compared to the control. The NOEL for lethality was 100% and the LC₂₅ for lethality was >100%.

Average weight in the 100% effluent concentration was 0.462mg and ranged from 0.435mg - 0.479mg per individual in the remaining effluent concentrations. Average weight for the control fish was 0.433mg for statistical analyses and test acceptability criteria. No statistically significant differences for growth were measured in any effluent concentration when compared to the control. The NOEL for growth was 100% and the IC₂₅ for growth was >100%.

	Percent	Average			Significant	Difference
Concentration	Survival	Weight (mg)	Min.	Max.	Lethality	Growth
Control (0%)	100	0.433	0.388	0.476		
13%	95	0.474	0.339	0.522		
26%	100	0.474	0.376	0.552		
52%	100	0.435	0.379	0.508		
76%	98	0.479	0.365	0.572		· · · · · · · · · · · · · · · · · · ·
100%	100	0.462	0.422	0.508		

Table 3. Summary of fathead minnow test results. An asterisk (*) denotes a statistically significant difference from the control.

Test Acceptability

Acceptable control survival (80%) was achieved in both tests. Similarly, *Ceriodaphnia dubia* reproduction (average 15 neonates/organism) and fathead minnow growth (average 0.250mg/test container) in control organisms met required levels. PMSD was within the required limits for an acceptable test (Table 4).

Table 4. PMSD for chronic test parameters.

	fathead min	now growth	C. dubia rej	oroduction
	Lower bound	Upper bound	Lower bound	Upper bound
PMSD	12	30	13	47
(% Minimum significant difference)	27	.2	31	0

DISCUSSION

A failed test for this discharge occurs when there is an NOEL or IC_{25} less than the IWC (Instream Waste Concentration) of 52%. The NOEL represents the highest effluent concentration at which no statistically significant effect is observed. The IC_{25} represents an estimate of the effluent concentration that would cause a 25 percent reduction of a non-quantal biological measurement. A violation for this discharge occurs when both the NOEL and the IC_{25} are less than the IWC. Since neither test species demonstrated statistically significant differences meeting these criteria, the discharge passes WET testing requirements for this sampling period.

REFERENCES

- 1. Hach Chemical Company. 2008. *Hach's Water Analysis Handbook*. Fifth Edition. Hach Chemical Company, Loveland, Colorado. Digital Medium.
- 2. APHA/AWWA/WEF. 1998. Standard Methods for the Examination of Water and Wastewater. 20th Edition. American Public Health Association, Washington, D.C.
- 3. USEPA. 2002. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. EPA-821-R-02-013. 335 pp.
- 4. CDPHE (Colorado Department of Public Health and Environment). 1998. Laboratory Guidelines for Conducting Whole Effluent Toxicity Tests. Water Quality Control Division.
- 5. USEPA. 2000. Method of Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136). EPA/821/B-00/004.
- 6. USEPA. 2000. Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications under the National Pollutant Discharge Elimination System Program. EPA/833/R-00/003.

Appendix 1 - Chain of Custody with Sample Receipt Forms

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500 S. Arthur Avenue, Unit 450 - Louisville, CO 80027

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Battle Mountain Gold Mine NPDES WET Test Log

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SeaCrest Group Louisville, CO

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ct Name: L	: Number:	ulio	O. Box :	9-379.	N/4	X Mail	Sample Location or ID	Test						Turnaround Requirements (Analytical Testing Only)	Standard (10 days)	3-5 Day	eport Date:	Relinquished By (1)	Perino
Client/Project Name: DM RI	P. O./Project Number: San Luis	Contact: Julio Modrid	Address: P.O. Box 310 San Luis	Phone # 719-379-0059	Fax #	Report By:	Sample Lo	W.E.T.							Star	3-5	Requested Report Date:	Reli	Signature Durid B. (22, W.) 1/28/22
~3 Hour Time 0900 Observation good water flow, Power un to Sampler , Sample Fontginer on ice on lee Observationgood water thru, tower on to Sampler, Sample lontainer on ICY Observation aund water flow, Power on to Sampler, Sample Container On ~6 Hour Time 1200_ Observation good water flow, Power on to Sampler , Sample Container Observation good wheter flow , Power on to Sampler, Sample Contriner on intal new on the R gallons (ma) Observationgrade water Mouspourser on to Samp 181, Sample Battle Mountain Gold Mine NPDES WET Test Log Volume sent to lab Observationapodewater they forwer on to Sampler 28/22 Circle One: M W C Observation good water low, pruse on to minutes Sampling Personnel: S. Maes tes, D. Carito, A. 01 Date / ml per Preatment System Flow Rate 510 GPM gallons End Sample Program: Time <u>0600</u> Start Sample Program: Time 0600 100 Total Volume Collected H 卤 Samples packed on ice ISCO Sampling Schedule ~24 Hour Time Ob00 ~18 Hour Time 2400 -21 Hour Time 0300 ~15 Hour Time 2100 ~9 Hour Time 1500 ~12 Hour Time 1800 SmRI Dellvered Completed COC outer third setting Cooler Sealed

i.	1 - 1 - 1 - 1 - 1 - 1 - 1	
1	SeaCrest Group	
	Louisville, CO	

Sample Receipt Form

Project #	422	030.B				Sam	ble #: 3		
Date:	012822					Initial			
Samples		6		1.1	-				
1. FedEx	Notes:	UPS		Courie	r	Hand	Delivery) (circle	e one)
2. Chilled	to Ship						Ambi	ent Chille	d
3. Cooler	Received Notes:	Broken o	⁻ Leaking				Y	N	NA
4. Sample	e Received Notes:	d Broken o	or Leaking	g			Y	N	
5. Receiv	ed Within Notes:	36hr Hold	ing Time				Ŷ	N	
6. Aeratio	n necessa	iry					Y	N	
7. pH adjı	ustment ne	ecessary					Y	(\mathbb{N})	
8. Sample	e Received Notes: <i>S</i> o				-6° C .		Y	N	NA
9. Descrip	Effluent:	clear,		Contract of the second s	resence	of Particu	late Matte	r):	
	Receiving Presence		species:				Y	(N)	
Lab #	Temp	D.O.	рН	Cond	1				
030 BH3	5.0	8.4	7.4	197					
Custody	Seals:								
	t on Outer	Package			(Y)	N			
	en on Out	영상 가슴 가슴 가 좋아?	е		Y	N	NA		
	t on Samp				Y	N			
	en on San				Y	Ν	NA		
Custody I	Documen	tation (Cł	nain of Co	ustody):	~				
1. Present	t Upon Re	ceipt of Sa	ample		(\mathbf{Y})	Ν			

Appendix 2 – Data Sheets for the Ceriodaphnia dubia Test

WET TEST REPORT FORM – CHRONIC

Permittee:	Battle Mountain Resources, Inc.	
Permit No.:	CO-0045675	
Outfall:	001B – IWC: 52%	
Test Type:	Routine 🖂 Accelerated 🗌 Screen 🗌	
Test Species:	Ceriodaphnia dubia	

Test Start Time	Test Start Date	Test End Time	Test End Date
1600	01-24-2022	1700	01-30-2022

Test Results	Lethality/TCP3B	Reproduction/TKP3B
S code: NOEL	100%	100%
	PASS	PASS
P code: LC ₂₅ /IC ₂₅	>100%	>100%
	PASS	PASS
T code:	>100%	>100%

Test Summary

Measurements	Control (0%)	13%	26%	52%	76%	100%
Exposed organisms	10	10	10	10	10	10
Survival for day 1	10	10	10	10	10	10
Survival for day 2	10	9	10	10	10	10
Survival for day 3	10	9	10	10	9	9
Survival for day 4	10	9	10	10	9	9
Survival for day 5	10	9	10	10	9	9
Survival for day 6	10	9	10	10	9	9
Mean 3 Brood Total	15.7	11.8	14.3	13.3	14.9	14.7
rdness (mg/L) – Receiv			Effluent: 4			on Water
kalinity (mg/L) – Recei			Effluent: 1			on Water

Were all Test Conditions in Conformance with Division Guidelines? YES \boxtimes NO \square If **NO**, list deviations from test specifications: N/A

Laboratory: SeaCrest Group

Comments:

Analyst's Name: Isabelle Sibley and Julie McKenney

les Date February 4,2022 Signature

SeaCrest Group

	240	Г		1.1.1.1	150 070	R	0016	2		
Permittee: IWC %:	BMR		olate #:	Lab #	422 U JL). <u>B</u> Site: H22-002	<u>, 001 г.</u>	Sample Date:	017	1122
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	0	0	0	0	0 5	U U	6			17
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	0	0	0	6	0	5	4			16
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Temp pH	0 0 7.3 25.9 8.0	0 0 7.1 7.1 74.1 24.1 8.0 8.1	0 0 7.2 1.2 24.2 24.1 7.9 8.0	84 0 1.4 7.1 241 241 7.7 7.9	0 7.4 7.4 6.0 24.1 7.9 7.9	5 5 74 7.4 24.1 24.1 14 8.0	7			12
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Temp pH Cond	0 0 7.3 25.9 8.0	0 0 7.1 7.1 74.1 24.1 8.0 8.1	0 0 7.2 1.2 24.2 24.1 7.9 8.0	84 0 1.4 7.1 241 241 7.7 7.9	0 7.4 7.4 6.0 24.1 7.9 7.9	5 5 74 7.4 2411 241 19 80 280 280 7 41	3 7 8.1 241 7.9		2	12 14.3 13 9
Temp pH Cond	0 7.3 25.9 8.0 277 0	0 0 7.1 7.1 14.1 24.1 <u>8.0 8.1</u> 274 0 0 0	0 0 1.2 1.2 1.2 24.1 1.9 8.0 29 9 0	84 0 1.4 7.1 241 241 1.7 1.9 1.7 1.9 215 0	0 74 74 50 241 79 79 70 5	5 5 74 7.4 24.1 24.1 19 8.0 280	7 7 8.1 2.41 7.9		16.	12 14.3 13 9 14
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nitials ardness Ikalinity Chlorine mmonia Exposur	Eff #1 <u>43</u> <u>74</u> <u>6.06</u> e Chamb	Eff #2 58 /5 20.0\ 0.05	Eff #3 61 13 6.01 0.07	Rec'g #1			96 63 60.01 60.03	Recon #2	Reco	n #3
nitials ardness Ikalinity Chlorine mmonia Exposur	Eff #1 <u>43</u> <u>74</u> <u>6.06</u> e Chamb Total Cap	Eff #2 58 15 20.01 0.05 er pacity:	Eff #3 61 13 20.01 0.07 30	Rec'g #1	Test Solution V	/olume:	96 63 20.01 20.03 15_ml	Recon #2	Reco	in #3
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nitials ardness Ikalinity hlorine nmonia Exposur Feeding Aeration #1 #2 #3 Screene	Eff #1 43 14 20.0(e Chamb Total Cap Total Cap Test Solu Schedule Not fed: Fed Irreg None: Not Used	Eff #2 /5 /6.0\ 0.02 er bacity: ution Surface Ar e ularly: I Enclosers	Eff #3 67 13 20.01 0.07 rea: 30 x	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min) /min)
nitials ardness Ikalinity hlorine nmonia Exposur Feeding Aeration #1 #2 #3 Screene	Eff #1 43 14 20.0(e Chamb Total Cap Total Cap Test Solu Schedule Not fed: Fed Irreg None: Not Used	Eff #2 /5 /6.0\ 0.02 er bacity: ution Surface Ar e ularly: I Enclosers	Eff #3 67 13 20.01 0.07 rea: 30 x	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	Volume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min) /min)
nitials ardness kalinity hlorine mmonia Exposur Feeding Aeration #1 #2 #3 Screene Conditio	Eff #1 93 14 2006 e Chamb Total Cap Total Cap Test Solu Schedule Not fed: Fed Irreg None: Not Ised	Eff #2 /5 /6.0 0.0 er bacity: ution Surface Ar e ularly: I Enclosers : ance of survivin	Eff #3 6/ 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min) /min)
nitials ardness kalinity hlorine mmonia Exposur Feeding #1 #2 #3 Screene Conditio	Eff #1 93 14 2006 e Chamb Total Cap Total Cap Test Solu Schedule Not fed: Fed Irreg None: Not Ised	Eff #2 /5 /6.0\ 0.02 er bacity: ution Surface Ar e ularly: I Enclosers	Eff #3 6/ 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min) /min)
nitials ardness kalinity hlorine mmonia Exposur Feeding Aeration #1 #2 #3 Screene Conditio	Eff #1 93 14 2006 e Chamb Total Cap Total Cap Test Solu Schedule Not fed: Fed Irreg None: Not Ised	Eff #2 /5 /6.0 0.0 er bacity: ution Surface Ar e ularly: I Enclosers : ance of survivin	Eff #3 6/ 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min) /min)
Initials Hardness Alkalinity Chlorine Ammonia . Exposur . Feeding . Aeration #1 #3 . Screene . Conditio	Eff #1 93 14 2006 e Chamb Total Cap Total Cap Test Solu Schedule Not fed: Fed Irreg None: Not Ised	Eff #2 /5 /6.0 0.0 er bacity: ution Surface Ar e ularly: I Enclosers : ance of survivin	Eff #3 67 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min
Initials Iardness Alkalinity Chlorine Exposur Exposur Aeration #1 #3 Screene Conditio	Eff #1 93 14 20.06 e Chamb Total Cap Total Cap Test Solu Schedule Not fed: Fed Irreg None: Not fed: None: None: None: None: None: None: None: None: None: Not fed: None:	Eff #2 /5 /5 20.01 0.0 er oacity: ution Surface Ar e ularly: I Enclosers : ance of survivin	Eff #3 67 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min)
nitials ardness Ikalinity hlorine mmonia Exposur Feeding Aeration #1 #3 Screene Conditio	Eff #1 93 14 20.06 e Chamb Total Cap Total Cap Total Cap Total Cap Total Cap Ed Irreg None: None: None: None: None: None: None: None: None: None: Automation Not Used Not Used Not Used Not Potential Not Used Not Used Not Used Not Used Not Used Not Used Not Vsed	Eff #2 /5 /5 20.01 0.0 er oacity: ution Surface Ar e ularly: I Enclosers : ance of survivin	Eff #3 67 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min)
nitials ardness Ikalinity hlorine mmonia Exposur Feeding Aeration #1 #3 Screene Conditio	Eff #1 93 14 20.06 e Chamb Total Cap Total Cap Total Cap Total Cap Total Cap Ed Irreg None: None: None: None: None: None: None: None: None: None: Automation Not Used Not Used Not Used Not Potential Not Used Not Used Not Used Not Used Not Used Not Used Not Vsed	Eff #2 /5 /5 20.01 0.0 er oacity: ution Surface Ar e ularly: I Enclosers : ance of survivin	Eff #3 67 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min)
nitials ardness kalinity hlorine mmonia Exposur Feeding Aeration #1 #3 Screene Conditio	Eff #1 93 14 20.06 e Chamb Total Cap Total Cap Total Cap Total Cap Total Cap Ed Irreg None: None: None: None: None: None: None: None: None: None: Automation Not Used Not Used Not Used Not Potential Not Used Not Used Not Used Not Used Not Used Not Used Not Vsed	Eff #2 /5 /5 20.01 0.0 er oacity: ution Surface Ar e ularly: I Enclosers : ance of survivin	Eff #3 67 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min)
nitials ardness Ikalinity hlorine mmonia Exposur Feeding Aeration #1 #3 Screene Conditio	Eff #1 93 14 20.06 e Chamb Total Cap Total Cap Total Cap Total Cap Total Cap Ed Irreg None: None: None: None: None: None: None: None: None: None: Automation Not Used Not Used Not Used Not Potential Not Used Not Used Not Used Not Used Not Used Not Used Not Vsed	Eff #2 /5 /5 20.01 0.0 er oacity: ution Surface Ar e ularly: I Enclosers : ance of survivin	Eff #3 67 13 20.01 0.07 mea: 30 rea: X g organisms at	Rec'g #1	Test Solution N Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used:	/olume: constant): (cyclic):	9% (03 ∠0.01 ∠0.03 15 ml cm to X YCT, algae (((((((((((((((((cm cm 	0 bubbles 0 bubbles 0 bubbles	/min) /min)
nitials ardness Ikalinity hlorine mmonia Exposur Feeding Aeration #1 #3 Screene Conditio	Eff #1 93 14 20.06 e Chamb Total Cap Total Cap Total Cap Total Cap Total Cap Ed Irreg None: None: None: None: None: None: None: None: None: None: Automation Not Used Not Used Not Used Not Potential Not Used Not Used Not Used Not Used Not Used Not Used Not Vsed	Eff #2 /5 /o.er bacity: ution Surface Ar ularly: I Enclosers ance of survivin MML M	$Eff #3$ $6/$ 13 $20 \cdot 61$ $0 \cdot 0$ $rea:$ 30 $rea:$ x $g \text{ organisms at}$ $n0 f_{1} C$	Rec'g #1	Test Solution V Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used: alive but immo	/olume: constant): (cyclic): bile; loss of orien	94 63 20.01 20.03 15 ml cm to X YCT, algae ((cm diar ntation; erratic n	cm minutes @ ~100 minutes @ ~100 minutes @ ~100 neter novement; etc.): x:y:z = board #	0 bubbles 0 bubbles 0 bubbles	/min) /min) /min)
nitials ardness Ikalinity chlorine mmonia Exposur Feeding Aeration #1 #2 #3 Screene Conditio	Eff #1 93 14 20.06 e Chamb Total Cap Total Cap Total Cap Total Cap Total Cap Ed Irreg None: None: None: None: None: None: None: None: None: None: Automation Not Used Not Used Not Used Not Potential Not Used Not Used Not Used Not Used Not Used Not Used Not Vsed	Eff #2 /5 /o.er bacity: ution Surface Ar ularly: I Enclosers ance of survivin MML M	$Eff #3$ $6/$ 13 $20 \cdot 61$ $0 \cdot 0$ $rea:$ 30 $rea:$ x $g \text{ organisms at}$ $n0 f_{1} C$	Rec'g #1	Test Solution V Water Depth (Fed Daily: Food Used: Before Use: Before Use: Before Use: Used: alive but immo	/olume: constant): (cyclic):	94 63 20.01 20.03 15 ml cm to X YCT, algae ((cm diar ntation; erratic n	cm minutes @ ~100 minutes @ ~100 minutes @ ~100 neter novement; etc.): x:y:z = board #	0 bubbles 0 bubbles 0 bubbles	/min) /min)
nitials ardness Ikalinity hlorine mmonia Exposur Feeding Aeration #1 #3 Screene Conditio	Eff #1 93 14 20.06 e Chamb Total Cap Total Cap Total Cap Total Cap Total Cap Ed Irreg None: None: None: None: None: None: None: None: None: None: Automation Not Used Not Used Not Used Not Potential Not Used Not Used Not Used Not Used Not Used Not Used Not Vsed	Eff #2 52 15 20.01 0.02 er bacity: ution Surface Ar e ularly: I Enclosers t: ance of survivin MM N	$Eff #3$ $6/$ 13 $20 \cdot 61$ $0 \cdot 07$ $a: 30$ $a: 30$ x $g \text{ organisms at}$ $n0 \cdot 6$	ml cm ²	Test Solution V Water Depth (Fed Daily: Food Used: Before Use: Before Use: Used: alive but immo	/olume: constant): (cyclic): bile; loss of orien	94 63 20.01 20.03 15 ml cm to X YCT, algae ((cm diar ntation; erratic n	cm cm 	0 bubbles 0 bubbles 0 bubbles	/min) /min) /min)

CETIS Ana	lyt	ical Rep	ort		_					1.1.1.1.1.1.1.1	ort Date Code/					9 (p 1 of 1 5-6631-791
Ceriodaphnia	7-d	Survival an	d Repr	oduction Te	est									5 - Q	SeaC	rest Group
Analysis ID: Analyzed:	1.4	3552-6755 Feb-22 16:3	9	Endpoint: Analysis:		Survival Rat 2xK Conti	te ngency Tab	les			S Vers is Leve		CETIS 1	v1.9.6	5	
Batch ID:	08-0	0509-3431		Test Type:	Rer	production-S	Survival (7d)	1.2	-	Analy	vst:	Lab	Tech	-	_	
Start Date:	24	Jan-22		Protocol:		V821/R-02-				Dilue	Seat one of the contract of th					
Ending Date:	30 .	Jan-22		Species:	Ceriodaphnia dubia				Brine		Not A	pplicable	в			
Test Length:				Taxon:	Branchiopoda				Sour	ce:		ouse Cult			Age:	
Sample ID:					422030.B				Proje	ct:	WET	Quarter	y Ċom	pliance	Test (1Q)	
Sample Date:	24 .	lan-22		Material:	PO	TW Effluent	8			Sour	ce:	NPD	ES Perm	it # (X)	(99999	999)
Receipt Date:	24	lan-22		CAS (PC):						Statio	on:	001B				
Sample Age:	n/a			Client:	BM	RI										
Data Transfor	m		Alt H	ур					NOE	L	LOEL	5	TOEL	TU	R	
Untransformed	1		C > T						100	*	>100		n/a	1		
Fisher Exact/	Bonf	erroni-Holn	n Test										i			
Control	vs	Group		Test S	Stat	P-Type	P-Value	Decision	n(α:5%)							
Dilution Water		13		0.500)	Exact	1.0000	Non-Sigr	ificant E	Effect						
		26		1.000	C	Exact	1.0000	Non-Sigr	ificant E	Effect						
		52		1.000)	Exact	1.0000	Non-Sigr								
		76		0.500)	Exact	1.0000	Non-Sigr	ificant E	Effect						
		100		0.500)	Exact	1.0000	Non-Sigr	ificant E	Effect	1.000		_			
Data Summar	У															
Conc-%		Code	NR	R		NR + R	Prop NR	Prop R	%Eff							
0		D	10	0		10	1	0	0.0%	ń.						
13			9	1		10	0.9	0.1	10.0							
26			10	0		10	1	0	0.0%							
52			10	0		10	1	0	0.0%	5						
76			9	1		10	0.9	0.1	10.09	%						
100			9	1		10	0.9	0.1	10.09	%						

Analyst: HM QA: TW

CETIS	S Ana	lytical Rep	ort	_							port Date st Code/II				39 (p 1 of 1 5-6631-791
Ceriod	aphnia	7-d Survival an	d Rep	roduc	ction Te	est								SeaC	rest Grou
Analys Analyz		04-9879-7945 01 Feb-22 16:39	9		point: lysis:	7d Survival Rate Linear Interpola		1)		2.5	TIS Versi atus Leve	5651 13	ETISv1.9.6		
Batch	D:	08-0509-3431		Test	Type:	Reproduction-S	urvival (7d))		An	alyst:	Lab Tec	h		
Start D	ate:	24 Jan-22		Prot	ocol:	EPA/821/R-02-013 (2002)						Reconst	tituted Water		
Ending	Date:	30 Jan-22		Spe	cies:	Ceriodaphnia di	ubia			Bri	ne:	Not App	licable		
Test Le	104 M 11			Taxo	on:	Branchiopoda				So		1.000	e Culture		Age:
Sample	ample ID: 13-0346-6024			Cod	e:	422030.B				Pro	oject:	WET QL	arterly Com	pliance	e Test (1Q
Sample	Date:	24 Jan-22		Mate	erial:	POTW Effluent				So	urce:	NPDES	Permit # (X)	(999999	9999)
Receip	t Date:	24 Jan-22		CAS	(PC):					Sta	tion:	001B			
Sample	Age:	n/a		Clier		BMRI									
Linear	Interpo	lation Options		1											
X Trans	sform	Y Transform	i i	Seed	d	Resamples	Exp 95%	CL	Metho	d					
Linear		Linear		6811	50	1000	Yes	1	Two-Po	oint Inter	polation	Y			
Point E	stimate	es													
Level	%	95% LCL	95%	UCL	TU	95% LCL	95% UCL								
LC5	58	6.5	n/a		1.724	n/a	15.38								
LC10	100	58	n/a		1	n/a	1.724								
LC15	>100	n/a	n/a		<1	n/a	n/a								
LC20	>100	n/a	n/a		<1	n/a	n/a								
LC25	>100	n/a	n/a		<1	n/a	n/a								
LC40	>100	n/a	n/a		<1	n/a	n/a								
LC50	>100	n/a	n/a	_	<1	n/a	n/a								
7d Surv	vival Ra	ate Summary			_		Calcu	lated V	ariate	(A/B)				Isoton	ic Variate
Conc-%	6	Code	Cour	nt	Mean	Min	Max	Std D	ev (CV%	%Effe	ct A/I	B Me	an	%Effect
0		D	10		1.0000	1	1.0000	0.000	21	0.00%	0.0%	1.30	/10 1		0.0%
13			10		0.9000	0.0000	1.0000	0.316	2 :	35.14%	10.0%	9/1	0.9	667	3.33%
26			10		1.0000		1.0000	0.000	0 (0.00%	0.0%	10	/10 0.9	667	3.33%
52			10		1.0000	1	1.0000	0.000	0 (0.00%	0.0%	10	/10 0.9	667	3.33%
76			10		0.9000	0.0000	1.0000	0.316	2 :	35.14%	10.0%	9/1	0.9		10.0%
			10		0.9000	0.0000	1,0000	0.316		35.14%	10.0%	9/1	0 0.9		10.0%

Analyst: HN QA: THE

CETIS Ana	ayu	oan Kepu								ort Date: Code/ID:		Feb-22 16: 22030CD / 1		
Ceriodaphnia	7-d	Survival and	d Repro	oduction Test								SeaC	crest Grou	
Analysis ID: Analyzed:		658-2511 eb-22 16:39			eproduction onparametric	-Control v	/s T	reatments	10000	IS Versior us Level:	n: CETISv 1	1.9.6		
Batch ID:	08-0	509-3431	1	Test Type: R	eproduction-	Survival (7	7d)		Analyst: Lab Tech					
Start Date:	24 J	an-22		Protocol: E	A/821/R-02	-013 (200)	2)		Diluent: Reconstituted Water					
Ending Date:	30 J	an-22		Species: C	eriodaphnia d	dubia			Brin	e: No	t Applicable			
Test Length:	6d (Dh	1	Taxon: B	anchiopoda				Sou	rce: In-	House Cultu	ire	Age:	
Sample ID:	13-0	346-6024		Code: 422030.B						ect: W	ET Quarterly	Complianc	e Test (1Q	
Sample Date:	24 J	an-22	1.13	Material: POTW Effluent						rce: NF	DES Permit	# (XX99999	9999)	
Receipt Date:	24 J	an-22	14	CAS (PC):						on: 00	1B			
Sample Age:				2018년 2017년 1월 17일	MRI									
Data Transfor	m		Alt Hy	yp					NOEL	LOEL	TOEL	TU	PMSD	
Untransformed	1		C > T						100	>100	n/a	14	30.98%	
Steel Many-O	ne Ra	ank Sum Te	st	1.1.1										
Control	vs	Conc-%		Test Sta	t Critical	Ties	DF	P-Type	P-Value	Decision	n(a:5%)			
Dilution Water		13		80	75	3	18	CDF	사람은 그는 것 같은 것 같		xt 🛛			
		26		90	75	3	18	CDF	0.3541	Non-Sign	nificant Effect	t		
		52		85.5	75	5	18	CDF	0.2204	Non-Sign	nificant Effect	;t		
		76		99.5	75	4	18	CDF	0.6816	Non-Sign	nificant Effect	t		
	1.1	100		105	75	3	18	CDF	0.8333	Non-Sigr	nificant Effec	at .		
ANOVA Table														
Source		Sum Squa	res	Mean Sc	uare	DF		F Stat	P-Value	Decision	n(α:5%)			
Between		95.2833		19.0567		5		0.8443	0.5244	Non-Sigr	nificant Effect	:t		
Error	-	1218.9		22.5722		54		1.1.1						
Total		1314.18				59		3						
ANOVA Assur	nptio	ns Tests												
Attribute	1	Test				Test Sta	at	Critical	P-Value	Decision				
Variance		Bartlett Equ	ality of	Variance Tes		7.395		15.09	0.1929	Equal Va	ariances			
Distribution		Shapiro-Wi	Ik W N	ormality Test		0.9112		0.9459	3.5E-04	Non-Nor	mal Distribut	ion		
Reproduction	Sum	mary		1.8										
Conc-%		Code	Count		95% LCL		L	Median	Min	Max	Std Err	CV%	%Effect	
0		D	10	15.7	13.18	18.22		17	9	20	1.116	22.48%	0.00%	
13			10	11.8	8.315	15.28		13	0	17	1.541	41.29%	24.84%	
26			10	14.3	12.19	16.41		15	9	18	0.9315	20.60%	8.92%	
52			10	13.3	10.48	16.12		13	9	22	1.248	29.67%	15.29%	
76			10	14.9	10.47	19.33		16	0	24	1.958	41.55%	5.10%	
				14.7		19.03								

Analyst: HN QA: TH

CETIS	S Ana	alytical Rep	ort						Report Da Test Code				39 (p 2 of 2 5-6631-791
Ceriod	laphnia	7-d Survival ar	d Repro	duction Te	est							Sea	Crest Group
Analys	is ID:	04-7763-7571		ndpoint:	Reproduction	- 10-1			CETIS Ver	sion:	CETISv1.9.6		
Analyz	ed:	01 Feb-22 16:3	9 A	nalysis:	Linear Interpola	ation (ICPIN)	10	Status Lev	el:	1		
Batch	ID:	08-0509-3431	т	est Type:	Reproduction-S	Survival (7d)		Ĩ.	Analyst:	Lab 1	Fech		
Start D	ate:	24 Jan-22	P	rotocol:	EPA/821/R-02-	013 (2002)			Diluent:	Reco	instituted Wate	r	
Ending	Date:	30 Jan-22	S	pecies:	Ceriodaphnia d	ubia			Brine:	Not A	Applicable		
Test Le	ength:	6d 0h	т	axon:	Branchiopoda	1	Source:	In-Ho	ouse Culture		Age:		
Sample	e ID:	13-0346-6024	С	ode:	422030.B				Project:	WET	Quarterly Com	plianc	e Test (1Q)
Sample	e Date:	24 Jan-22	M	laterial:	POTW Effluent	2		1	Source:	NPD	ES Permit # (X)	X9999	9999)
Receip	t Date:	24 Jan-22	С	AS (PC):				1	Station:	001B			
Sample	e Age:	n/a	С	lient:	BMRI								
Linear	Interpo	lation Options											
X Trans	sform	Y Transform	n S	eed	Resamples	Exp 95%	CL Me	thod					
Linear		Linear	20	005554	1000	Yes	Tw	o-Point Ir	iterpolation				
Point E	stimat	es				125							
Level	%	95% LCL	95% UC	L TU	95% LCL	95% UCL							
IC5	5.371	2.871	n/a	18.62	n/a	34.84							
IC10	10.74	5.741	n/a	9.309	n/a	17.42							
IC15	>100	n/a	n/a	<1	n/a	n/a							
C20	>100	n/a	n/a	<1	n/a	n/a							
IC25	>100	n/a	n/a	<1	n/a	n/a							
IC40	>100	n/a	n/a	<1	n/a	n/a							
IC50	>100	n/a	n/a	<1	n/a	n/a							
Reprod	luction	Summary				Cal	culated V	/ariate				Isotor	nic Variate
Conc-%	6	Code	Count	Mean	Min	Мах	Std Dev	CV%	%Ef	fect	Me	ean	%Effect
0		D	10	15.7	9	20	3.529	22.48	% 0.0%	5	15	.7	0.0%
13			10	11.8	0	17	4.872	41.29	% 24.8	4%	13	.8	12.1%
26			10	14.3	9	18	2.946	20.60	% 8.92	%	13	.8	12.1%
52			10	13.3	9	22	3.945	29.67	% 15.2	9%	13	.8	12.1%
76			10	14.9	0	24	6.19	41.55	% 5.1%		13	.8	12.1%
100			10	14.7	0	21	6.056	41.20	% 6.37		13		12.1%

Analyst: HN QA: TW

003-715-114-2

CETIS™ v1.9.6.14

Appendix 3 – Data Sheets for the Fathead Minnow Test

WET TEST REPORT FORM – CHRONIC

Permittee:	Battle Mountain Resources, Inc.
Permit No.:	CO-0045675
Outfall:	001B – IWC: 52%
Test Type:	Routine 🖂 Accelerated 🗌 Screen 🗌
Test Species:	fathead minnow

Test Start Time	Test Start Date	Test End Time	Test End Date
1500	01-24-2022	1400	01-31-2022

Test Results	Lethality/TCP6C	Growth/TKP6C
S code: NOEL	100%	100%
2.1.2 2.4 2.4	PASS	PASS
P code: LC ₂₅ /IC ₂₅	>100%	>100%
	PASS	PASS
T code:	>100%	>100%

Test Summary Control Measurements 13% 26% 52% 76% 100% (0%) Exposed organisms 40 40 40 40 40 40 Survival for day 1 40 40 40 40 40 40 Survival for day 2 40 40 40 40 40 40 Survival for day 3 40 40 40 40 40 40 Survival for day 4 40 39 40 40 40 40 Survival for day 5 40 39 40 40 39 40 Survival for day 6 40 39 40 40 39 40 Survival for day 7 40 38 40 40 39 40 Mean Dry Wt. (mg) 0.433 0.474 0.474 0.435 0.479 0.462 Recon Water: 88

Were all Test Conditions in Conformance with Division Guidelines? YES \boxtimes NO \square If **NO**, list deviations from test specifications: N/A

Laboratory: SeaCrest Group

Comments:

Analyst's Name: Shanna Wepman, Haley West, and Daniela Thornton

Date February 4,2022 Haley Whent Signature

SeaCrest Group

m			mg Ave wt	0		6 0.433	S	•	39 1.11	212.0	22	2	_	HLA'O SL	14	4	_	7 0.435	6	20	1A	11.40 07	21	0	-	221-0-20	2					_											
Form #: 103a Effective: January 2009	. ~		Fish Wt mg	0.38	80.47	CH-0	10.39	0.51	6.0	-	0	7 0.552	4 0.376	0	3 0.494	40120 S		7 0 38	C	3 0.518	0.	20440	1.1	0-11-0 L	0.0	0.0	7 0.42					8										minutes	
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臣	MH		Fish & Tare	0.72964		21190.0	0.7048h	0.108906	0.70399	612213	12	0.109909	01/10/10	15411-0	0.70601	0.72126	0.71307	4,9707.0	0.70792	186620	0.71313	0.72702	100	0.70857	22707-0	0.70485	0-69303					hbhil.u	Condition/appearance of surviving organisms and Comments				L				@ ~ 100 bi	#	
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CETIS Ana	lytica	al Repo	ort							ort Date: t Code/ID:		Feb-22 16: 030FHM / 1	
Fathead Minn	ow 7-d	Larval S	urvival a	and Growth	Test							Sea	Crest Gro
		9-4950		Carl and the second	7d Survival Ra			a contr	1000	IS Versio	5 (Percent)	1.9.6	
Analyzed:	01 Fet	-22 16:48	3 A	nalysis:	Nonparametri	c-Contro	l vs T	Freatments	Stat	us Level:	1		
Batch ID:	03-341	6-8276	T	est Type:	Growth-Surviv	al (7d)	1		Ana	lyst: La	ab Tech		
Start Date:	24 Jan	-22	P	rotocol:	EPA/821/R-02	2-013 (20	002)		Dilu	ent: R	econstituted 1	Water	
Ending Date:	31 Jan	-22	S	pecies:	Pimephales p	romelas			Brin	e: N	ot Applicable		
Test Length:	7d Oh		т	axon:	Actinopterygii				Sou	rce: In	-House Cultu	re	Age:
Sample ID:	07-837	0-6763	c	ode:	422030.B				Proj	ect: W	ET Quarterly	Complianc	e Test (1
Sample Date:	24 Jan	-22	N	laterial:	POTW Effluer	nt			Sou	rce: N	PDES Permit	# (XX9999	9999)
Receipt Date:	24 Jan	-22	C	AS (PC):					Stat	ion: 00)1B		
Sample Age:	n/a		C	lient:	BMRI								
Data Transform	m		Alt Hy	p					NOEL	LOEL	TOEL	TU	PMSD
Angular (Corre	cted)	1.1	C > T					- D	100	>100	n/a	1	7.58%
Steel Many-Or	ne Ran	k Sum Te	st										
Control V	/s	Conc-%		Test S	tat Critical	Ties	DF	P-Type	P-Value	Decisio	n(α:5%)		
Dilution Water	0.1	13		16	10	1	6	CDF	0.6105	Non-Sig	nificant Effect	t	
		26		18	10	1	6	CDF	0.8333		nificant Effec		
		52		18	10	1	6	CDF	0.8333		nificant Effec		
		76		16	10	1	6	CDF	0.6105	the second se	nificant Effec		
1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		100		18	10	1	6	CDF	0.8333	Non-Sig	nificant Effec	t	
ANOVA Table													
Source		Sum Squa		Mean S		DF		F Stat	P-Value	Decisio			
Between		.0207562		0.0041		5		0.8337	0.5427	Non-Sig	nificant Effec	t	
Error		.0896276	6	0.0049	793	18	_	-0					
Total		.110384			A	23	_		_				
ANOVA Assum	ptions	s Tests											
Attribute		est	_		-	Test S	Stat	Critical	P-Value	Decisio			
Variance				Variance Te		242.44	1	12.22.1	110.00	Indeterm			
Distribution	S	shapiro-W	ilk W No	rmality Test		0.643	9	0.884	2.0E-06	Non-Nor	mal Distribut	ion	
7d Survival Ra	ite Sun	nmary											
Conc-%		ode	Count	Mean	95% LCL	100 C		Median	Min	Max	Std Err	CV%	%Effec
0	E)	4	1.0000	1.0000	1.000		1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
13			4	0.9500	0.7909	1.000		1.0000	0.8000	1.0000	0.0500	10.53%	5.00%
26			4	1.0000	1.0000	1.000		1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
52			4	1.0000	1.0000	1.000		1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
76 100			4	0.9750	0.8954	1.000		1.0000	0.9000	1.0000	0.0250	5.13% 0.00%	2.50% 0.00%
		L. L.			1.0000	1.0000		1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
Angular (Corre					050/1.01	0.000		Madler			044 5	C) /0/	0/ = **-
Conc-% 0		ode	Count	Mean	95% LCL		ICL	Median	Min	Max	Std Err	CV%	%Effec
	6		4	1.412	1.412	1.412		1.412	1.412	1.412	0	0.00%	0.00%
13			4	1.336	1.093	1.578		1.412	1.107	1.412	0.07622	11.41%	5.40%
26 52			4	1.412	1.412	1.412		1.412	1.412	1.412	0	0.00%	0.00%
52 76			4	1.412	1.412	1.412		1.412	1.412	1.412	0	0.00%	0.00%
100			4	1.371	1.242 1.412	1.501 1.412		1.412 1.412	1.249 1.412	1.412 1.412	0.04074	5.94% 0.00%	2.89% 0.00%
			4	1.412	1.412	1.412		1.412	1.4 2	412	0	0.00%	0.00%

Analyst: HW QA: TM

Analyzed: 01 Batch ID: 03 Start Date: 24 Ending Date: 31 Test Length: 7d Sample ID: 07 Sample Date: 24 Receipt Date: 24 Sample Date: 24 Receipt Date: 24 Sample Age: n/a Linear Interpolati X X Transform Linear Linear % LC5 >100 LC10 >100 LC20 >100 LC40 >100 LC50 >100 LC50 >100 Conc-% 0 13	4-1116-8871 1 Feb-22 16:48 3-3416-8276 4 Jan-22 1 Jan-22 1 Oh 7-8370-6763 4 Jan-22 4 Jan-22 4 Jan-22 a tion Options Y Transform Linear	End Ana Test Prof Spe Taxo Cod Mate CAS Clien Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a	Ipoint: Ilysis: t Type: tocol: cies: on: le: erial: 5 (PC): nt: d	h Test 7d Survival Ra Linear Interpol Growth-Surviva EPA/821/R-02 Pimephales pr Actinopterygii 422030.B POTW Effluen BMRI BMRI Resamples 1000 95% LCL n/a n/a n/a n/a n/a	ation (ICPIN al (7d) -013 (2002) oomelas t t <u>Exp 95%</u> Yes 95% UCL n/a n/a n/a n/a n/a	CL Meti Two	CE Sta Dilu Brin Sou Pro Sou Stat	ient: Re ince: No irce: In- ject: W irce: Nf ion: 00	n: CETIS 1 ab Tech econstituted ot Applicable -House Cult	Sea v1.9.6 Water e ure y Complian	18-9628-330 Crest Grou Age: ce Test (1Q) 99999)
Analyzed: 01 Batch ID: 03 Start Date: 24 Ending Date: 31 Test Length: 7d Sample ID: 07 Sample ID: 07 Sample Date: 24 Receipt Date: 24 Sample ID: 07 Sample Date: 24 Receipt Date: 24 Sample Date: 24 Sample Date: 24 Receipt Date: 24 Sample Age: n/a Linear Interpolati X X Transform Linear Point Estimates Level Level % LC5 >100 LC20 >100 LC40 >100 LC50 >100 Conc-% 0 13 13	1 Feb-22 16:48 3-3416-8276 4 Jan-22 1 Jan-22 4 Oh 7-8370-6763 4 Jan-22 4 Jan-22 a tion Options Y Transform Linear 95% LCL n/a n/a n/a n/a n/a	Ana Tesi Prof Spe Taxo Cod Mate CAS Clien Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a n/a	typsis: trype: tocol: ccies: on: erial: s (PC): nt: d c f f f f f f f f f f f f f f f f f f	Linear Interpol Growth-Surviva EPA/821/R-02 Pimephales pr Actinopterygii 422030.B POTW Effluen BMRI BMRI Resamples 1000 95% LCL n/a n/a n/a n/a	ation (ICPIN al (7d) -013 (2002) oomelas t t <u>Exp 95%</u> Yes 95% UCL n/a n/a n/a n/a n/a	CL Meti Two	Sta Ana Dilu Brin Sou Pro Sou Sta	tus Level: Ilyst: La Ient: Re Ince: In- Irce: In- Iect: W Irce: Ni Iion: 00	1 ab Tech econstituted of Applicable -House Cult ET Quarteri PDES Perm	Water e ure y Complian	ce Test (1Q)
Batch ID: 03 Start Date: 24 Ending Date: 31 Test Length: 7d Sample ID: 07 Sample Date: 24 Receipt Date: 24 Sample Date: 24 Receipt Date: 24 Sample Age: n/a Linear Interpolati X X Transform Linear Point Estimates Level LC5 >100 LC10 >100 LC20 >100 LC20 >100 LC40 >100 LC50 >100 C4 >100 C50 >100 I3 13	3-3416-8276 4 Jan-22 1 Jan-22 1 Jan-22 1 Oh 7-8370-6763 4 Jan-22 a tion Options Y Transform Linear 95% LCL n/a n/a n/a n/a n/a n/a	Test Prof Spe Taxe Cod Mate CAS Clien Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a n/a	t Type: tocol: ccies: on: le: erial: s (PC): nt: d d 56 TU <1 <1 <1 <1 <1 <1 <1	Growth-Surviva EPA/821/R-02 Pimephales pri Actinopterygii 422030.B POTW Effluen BMRI BMRI Resamples 1000 95% LCL n/a n/a n/a n/a	al (7d) -013 (2002) omelas t Exp 95% Yes 95% UCL n/a n/a n/a n/a n/a	CL Meti Two	Ana Dilu Brin Sou Pro Sou Stat	Ilyst: La Ient: Re Ince: In- Iect: W Irce: Ni Iion: 00	ab Tech econstituted of Applicable -House Cult ET Quarterl PDES Perm	e ure y Complian	ce Test (1Q)
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Ending Date: 31 Test Length: 7d Sample ID: 07- Sample Date: 24 Receipt Date: 24 Sample Age: n/a Linear Interpolati X X Transform Linear Point Estimates - Level % LC5 >100 LC10 >100 LC20 >100 LC20 >100 LC40 >100 LC50 >100 Mathematical Structure - Long - Labor - Labor - Long - Transform - Long - Long - Long - Long - Long - Long - </td <td>I Jan-22 J Oh 7-8370-6763 J Jan-22 J Jan-22 a tion Options Y Transform Linear 95% LCL n/a n/a n/a n/a n/a n/a</td> <td>Spe Taxi Cod Mate CAS Clien Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a n/a</td> <td>cies: on: le: erial: 5 (PC): nt: 56 56 71 41 <1 <1 <1 <1 <1</td> <td>Pimephales pri Actinopterygii 422030.B POTW Effluen BMRI BMRI 1000 95% LCL n/a n/a n/a n/a</td> <td>exp 95% Yes 95% UCL n/a n/a n/a n/a</td> <td>Two</td> <td>Brir Sou Pro Sou Stat</td> <td>ne: No Irce: In- ject: W Irce: Ni ion: 00</td> <td>ot Applicable -House Cult ET Quarterl PDES Perm</td> <td>e ure y Complian</td> <td>ce Test (1Q</td>	I Jan-22 J Oh 7-8370-6763 J Jan-22 J Jan-22 a tion Options Y Transform Linear 95% LCL n/a n/a n/a n/a n/a n/a	Spe Taxi Cod Mate CAS Clien Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a n/a	cies: on: le: erial: 5 (PC): nt: 56 56 71 41 <1 <1 <1 <1 <1	Pimephales pri Actinopterygii 422030.B POTW Effluen BMRI BMRI 1000 95% LCL n/a n/a n/a n/a	exp 95% Yes 95% UCL n/a n/a n/a n/a	Two	Brir Sou Pro Sou Stat	ne: No Irce: In- ject: W Irce: Ni ion: 00	ot Applicable -House Cult ET Quarterl PDES Perm	e ure y Complian	ce Test (1Q
Test Length: 7d Sample ID: 07. Sample Date: 24 Receipt Date: 24 Sample Age: n/a Linear Interpolati X X Transform Inear Point Estimates 2 Level % LC5 >100 LC10 >100 LC20 >100 LC20 >100 LC20 >100 LC5 >100 LC40 >100 LC50 >100 L00 Conc-% L013 Linear	d 0h 7-8370-6763 4 Jan-22 a tion Options <u>Y Transform</u> Linear 95% LCL n/a n/a n/a n/a n/a n/a	Taxo Cod Mate CAS Clien Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a n/a	on: le: erial: 5 (PC): nt: d d 56 TU <1 <1 <1 <1 <1 <1	Actinopterygii 422030.B POTW Effluen BMRI Resamples 1000 95% LCL n/a n/a n/a n/a	Exp 95% Yes 95% UCL n/a n/a n/a n/a	Two	Sou Pro Sou Stat	irce: In- ject: W irce: Nf ion: 00	-House Cult ET Quarterl PDES Perm	ure y Complian	ce Test (1Q
Sample ID: 07- Sample Date: 24 Receipt Date: 24 Receipt Date: 24 Sample Age: n/a Linear Interpolati X X Transform 1 Linear Point Estimates Level % LC5 >100 LC10 >100 LC20 >100 LC20 >100 LC50 >100 L010 100 L020 100 L03 100	7-8370-6763 4 Jan-22 4 Jan-22 a tion Options Y Transform Linear 95% LCL n/a n/a n/a n/a n/a n/a	Cod Mate CAS Clie Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a	le: erial: 5 (PC): nt: 56 56 71 <1 <1 <1 <1 <1 <1	422030.B POTW Effluen BMRI Resamples 1000 95% LCL n/a n/a n/a n/a	Exp 95% Yes 95% UCL n/a n/a n/a n/a	Two	Pro Sou Stat	ject: W Irce: Ni ion: 00	ET Quarterl PDES Perm	y Complian	ce Test (1Q
Sample Date: 24 Receipt Date: 24 Sample Age: n/a Linear Interpolati X Transform Linear Point Estimates Level % LC5 >100 LC10 >100 LC15 >100 LC20 >100 LC20 >100 LC25 >100 LC20 >100 LC25 >100 LC20 >100	4 Jan-22 4 Jan-22 a tion Options Y Transform Linear 95% LCL n/a n/a n/a n/a n/a n/a	Mate CAS Clien Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a n/a	erial: 5 (PC): nt: 56 56 71 <1 <1 <1 <1 <1	POTW Effluen BMRI Resamples 1000 95% LCL n/a n/a n/a n/a	Exp 95% Yes 95% UCL n/a n/a n/a n/a	Two	Sou Stat	irce: Ni ion: 00	PDES Perm		
Receipt Date: 24 Sample Age: n/a Linear Interpolati X Transform Linear Point Estimates Level C5 C10 C10 C10 C20 C20 C40 C50 C40 C50 C40 C50 C40 C50 C40 C50 C50 C3	tion Options Y Transform Linear 95% LCL n/a n/a n/a n/a n/a n/a n/a	CAS Cliei Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a	s (PC): nt: 56 56 71 71 71 71 71 71 71	BMRI Resamples 1000 95% LCL n/a n/a n/a n/a	Exp 95% Yes 95% UCL n/a n/a n/a n/a	Two	Stat	ion: 00		it # (XX999:	99999)
Sample Age: n/a Linear Interpolation X X Transform X Linear X Point Estimates X Level % LC5 >100 LC10 >100 LC20 >100 LC20 >100 LC30 >100 LC40 >100 LC50 >100 L00 100 L00 100 <	a tion Options Y Transform Linear 95% LCL n/a n/a n/a n/a n/a n/a n/a	Clier Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a	nt: 56 50 41 41 41 41 41 41 41	Resamples 1000 95% LCL n/a n/a n/a n/a n/a	Yes 95% UCL n/a n/a n/a n/a	Two	nod		D1B		
Linear Interpolati X Transform Linear Point Estimates Level % LC5 >100 LC10 >100 LC10 >100 LC15 >100 LC20 >100 LC20 >100 LC20 >100 LC20 >100 LC30 >100 LC40 >100 LC50 >100	tion Options <u>Y Transform</u> Linear <u>95% LCL</u> n/a n/a n/a n/a n/a n/a n/a	Seed 7695 95% UCL n/a n/a n/a n/a n/a n/a	d 56 7U 71 71 71 71 71 71	Resamples 1000 95% LCL n/a n/a n/a n/a n/a	Yes 95% UCL n/a n/a n/a n/a	Two	10 00 V	polation			
X Transform Linear Point Estimates Level % LC5 >100 LC10 >100 LC15 >100 LC20 >100 LC20 >100 LC20 >100 LC20 >100 LC20 >100 LC30 >100 LC30 >100 LC40 >100 LC50 >100	Y Transform Linear 95% LCL n/a n/a n/a n/a n/a n/a	7695 95% UCL n/a n/a n/a n/a n/a	TU <1 <1 <1 <1 <1 <1	1000 95% LCL n/a n/a n/a n/a	Yes 95% UCL n/a n/a n/a n/a	Two	10 00 V	polation			
Linear Point Estimates Level % LC5 >100 LC10 >100 LC15 >100 LC20 >100 LC20 >100 LC20 >100 LC40 >100 LC50 >100 Conc-% 0 13	Linear 95% LCL n/a n/a n/a n/a n/a n/a	7695 95% UCL n/a n/a n/a n/a n/a	TU <1 <1 <1 <1 <1 <1	1000 95% LCL n/a n/a n/a n/a	Yes 95% UCL n/a n/a n/a n/a	Two	10 00 V	polation			
Point Estimates Level % LC5 >100 LC10 >100 LC15 >100 LC20 >100 LC25 >100 LC20 >100 LC20 >100 LC20 >100 LC40 >100 LC50 >100 Td Survival Rate Conc-% D 13	95% LCL n/a n/a n/a n/a n/a	95% UCL n/a n/a n/a n/a n/a	TU <1 <1 <1 <1 <1	95% LCL n/a n/a n/a n/a	95% UCL n/a n/a n/a n/a		-Point Interp	polation			
Level % LC5 >100 LC10 >100 LC15 >100 LC20 >100 LC25 >100 LC40 >100 LC50 >100 Conc-% 0 13 0	n/a n/a n/a n/a n/a	n/a n/a n/a n/a n/a	<1 <1 <1 <1	n/a n/a n/a n/a	n/a n/a n/a n/a						
LC5 >100 LC10 >100 LC15 >100 LC20 >100 LC25 >100 LC40 >100 LC50 >100 Conc-% 0 13	n/a n/a n/a n/a n/a	n/a n/a n/a n/a n/a	<1 <1 <1 <1	n/a n/a n/a n/a	n/a n/a n/a n/a						
LC10 >100 LC15 >100 LC20 >100 LC25 >100 LC25 >100 LC40 >100 LC50 >100 7d Survival Rate Conc-% 0 13	n/a n/a n/a n/a	n/a n/a n/a n/a	<1 <1 <1	n/a n/a n/a	n/a n/a n/a						
LC15 >100 LC20 >100 LC25 >100 LC40 >100 LC50 >100 7d Survival Rate Conc-%	n/a n/a n/a	n/a n/a n/a	<1 <1	n/a n/a	n/a n/a						
C20 >100 C25 >100 C40 >100 C50 >100 7d Survival Rate Conc-% 0 13	n/a n/a	n/a n/a	<1	n/a	n/a						
.C25 >100 .C40 >100 .C50 >100 7d Survival Rate Conc-% 0 13	n/a	n/a									
_C40 >100 _C50 >100 7d Survival Rate Conc-% 0 13			<1	nla							1001
_C50 >100 7d Survival Rate Conc-%) 13	n/a				n/a						
7d Survival Rate Conc-%) 13	n/a	n/a n/a	<1 <1	n/a n/a	n/a n/a						
Conc-%) 13	19-5	ting.		IVa	14.4	lated Varia		_		lanta	nic Variate
) 13	Code	Count	Mean	Min	Max	lated Varia Std Dev	CV%	%Effect	A/B	Mean	%Effect
13	D	4	1.0000		1.0000	0.0000	0.00%	0.0%	40/40	1	0.0%
		4	0.9500		1.0000	0.1000	10.53%	5.0%	38/40	0.985	1.5%
26		4	1.0000		1.0000	0.0000	0.00%	0.0%	40/40	0.985	1.5%
52		4	1.0000		1.0000	0.0000	0.00%	0.0%	40/40	0.985	1.5%
76		4	0.9750	0.9000	1.0000	0.0500	5.13%	2.5%	39/40	0.985	1.5%
100		4	1.0000	1.0000	1.0000	0.0000	0.00%	0.0%	40/40	0.985	1.5%
d Survival Rate	Detail										
Conc-%		Rep 1	Rep 2		Rep 4						
0	D	1.0000	1.0000	1.0000	1.0000						
13		1.0000	0.8000		1.0000						
26		1.0000	1.0000	1.0000	1.0000						
52		1.0000	1.0000	1.0000	1.0000						
6		0.9000	1.0000	1.0000	1.0000						
100		1.0000	1.0000	1.0000	1.0000						

CETIS Ana	iiyti	cal Rep	oort	920							ort Date				48 (p 3 of 8-9628-336
Fathead Minn	low 7	-d Larval	Surviva	I and Growt	h Te	est								SeaC	rest Grou
Analysis ID: Analyzed:		004-3575 eb-22 16:4	48	Endpoint: Analysis:		an Dry Bion rametric-Co			tments		IS Vers us Leve		CETISv1	.9.6	
Batch ID:	03-3	416-8276	í.	Test Type:	Gro	wth-Surviva	al (7d)			Ana	lyst:	Lab	Tech		
Start Date:	24 J	an-22		Protocol:	EP.	A/821/R-02	-013 (20	02)		Dilu	ent:	Reco	onstituted V	Vater	
Ending Date:	31 J	an-22		Species:	Pin	nephales pr	omelas			Brin	e:	Not /	Applicable		
Test Length:	7d (Dh		Taxon:	Act	inopterygii				Sou	rce:	In-H	ouse Cultur	e	Age:
Sample ID:	07-8	370-6763	0.1	Code:	422	2030.B				Proj	ect:	WET	Quarterly	Complianc	e Test (1Q
Sample Date:	24 J	an-22		Material:	PO	TW Effluen	t			Sou	rce:	NPD	ES Permit	# (XX9999	9999)
Receipt Date:	24 J	an-22		CAS (PC):						Stat	ion:	001E	3		
Sample Age:	n/a		1	Client:	BM	RI								-	
Data Transfor	m		Alt H							NOEL	LOEL	_	TOEL	ти	PMSD
Untransformed	1		C > T							100	>100		n/a	1	27.20%
Dunnett Multi	ple C	ompariso	n Test												
Control	vs	Conc-%	,	Test S	Stat	Critical	MSD	DF	P-Type	P-Value	Decis	sion(a:5%)		
Dilution Water		13		-0.837	8	2.407	0.118	6	CDF	0.9735	Non-S	Signif	icant Effect	1.00	
		26		-0.842	9	2.407	0.118	6	CDF	0.9738	Non-S	Signif	icant Effect		
		52		-0.030	59	2.407	0.118	6	CDF	0.8422	Non-S	Signif	icant Effect		
		76		-0.934	8	2.407	0.118	6	CDF	0.9794			icant Effect		
		100		-0.582	4	2.407	0.118	6	CDF	0.9501	Non-S	Signif	icant Effect		
ANOVA Table															
Source		Sum Squ	uares	Mean	Squ	lare	DF		F Stat	P-Value	Decis	sion(d	a:5%)		
Between		0.008517	'8	0.001	10.50		5		0.3557	0.8719	Non-S	Signifi	icant Effect		
Error		0.086214		0.004	7897	I	18								
Total		0.094732	24				23								
ANOVA Assur	nptio	ns Tests													
Attribute		Test		1			Test S	tat	Critical	P-Value	Decis	ion(d	a:1%)		
Variance		Bartlett E	quality c	f Variance T	est		3.065		15.09	0.6899	Equal	Varia	ances		
Distribution		Shapiro-V	Nilk W N	lormality Tes	st		0.9421		0.884	0.1814	Norm	al Dis	stribution		
Mean Dry Bior	nass	-mg Sumi	mary												
Conc-%		Code	Coun	t Mean	-	95% LCL	95% U	CL	Median	Min	Max		Std Err	CV%	%Effect
)		D	4	0.433		0.3566	0.5094		0.434	0.388	0.476		0.02401	11.09%	0.00%
13			4	0.474		0.3307	0.6173		0.5175	0.339	0.522		0.04502	18.99%	-9.47%
26			4	0.474		0.3577	0.5908		0.4845	0.376	0.552		0.03662	15.44%	-9.53%
52			4	0.434		0.3355	0.5335		0.4255	0.379	0.508		0.0311	14.32%	-0.35%
76			4	0.4788		0.3378	0.6197		0.489	0.365	0.572		0.04428	18.50%	-10.57%
100		-	4	0.461	5	0.4052	0.5178		0.458	0.422	0.508		0.01769	7.67%	-6.58%
Mean Dry Bior	nass	-mg Detai	(
Conc-%		Code	Rep 1		1	Rep 3	Rep 4	-							
)		D	0.388			0.476	0.395								
13			0.516			0.519	0.522								
26			0.552			0.475	0.494								
52			0.464	0.379		0.387	0.508								
76			0.518	0.365		0.46	0.572								
100			0.46	0.456		0.508	0.422								

Analyst: HN QA: NR

Analyzed: () Batch ID: () Start Date: 2 Ending Date: 3 Test Length: 7	06-8232-9749 01 Feb-22 16:48 03-3416-8276 24 Jan-22 31 Jan-22 7d Oh 07-8370-6763 24 Jan-22 24 Jan-22 14	End Ana Tesi Prot Spe Taxo Cod Mate	point: lysis: t Type: tocol: cies: on: e: erial: ; (PC):	h Test Mean Dry Bion Linear Interpola Growth-Surviva EPA/821/R-02- Pimephales pro Actinopterygii 422030.B POTW Effluent	ation (ICPIN) al (7d) 013 (2002) omelas		Sta Ana Dilu Brii	nent: Rem ne: Not	: CETISv1. 1 D Tech constituted W Applicable House Culture	9.6 /ater	Crest Group
Analyzed: 0 Batch ID: 0 Start Date: 2 Ending Date: 3 Test Length: 7 Sample ID: 0 Sample Date: 2 Receipt Date: 2 Sample Age: r Linear Interpola	01 Feb-22 16:48 03-3416-8276 24 Jan-22 31 Jan-22 7d Oh 07-8370-6763 24 Jan-22 24 Jan-22 1/a	3 Ana Tesi Prof Spe Tax Cod Mate CAS	lysis: t Type: tocol: cies: on: e: e: erial: ; (PC):	Linear Interpola Growth-Surviva EPA/821/R-02- Pimephales pro Actinopterygii 422030.B	ation (ICPIN) al (7d) 013 (2002) omelas		Sta Ana Dilu Brii	tus Level: lyst: Lat lent: Red ne: Not	1 Tech constituted W Applicable	'ater	
Batch ID: 0 Start Date: 2 Ending Date: 3 Test Length: 7 Sample ID: 0 Sample Date: 2 Receipt Date: 2 Sample Age: r Linear Interpola	03-3416-8276 24 Jan-22 31 Jan-22 7d Oh 07-8370-6763 24 Jan-22 24 Jan-22 n/a	Tesi Proi Spe Taxi Cod Mate	t Type: tocol: cies: on: e: e: erial: ; (PC):	Growth-Surviva EPA/821/R-02- Pimephales pro Actinopterygii 422030.B	il (7d) 013 (2002) omelas		Ana Dilu Brit	lyst: Lat ent: Re ne: Not	o Tech constituted W t Applicable		
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Ending Date: 3 Test Length: 7 Sample ID: 0 Sample Date: 2 Receipt Date: 2 Sample Age: r Linear Interpola	31 Jan-22 7d Oh 07-8370-6763 24 Jan-22 24 Jan-22 n/a	Spe Taxe Cod Mate	cies: on: e: erial: ; (PC):	Pimephales pro Actinopterygii 422030.B	omelas		Bri	ne: Not	Applicable		
Test Length: 7 Sample ID: 0 Sample Date: 2 Receipt Date: 2 Sample Age: r Linear Interpole	7d Oh 07-8370-6763 24 Jan-22 24 Jan-22 n/a	Taxo Cod Mate CAS	on: e: erial: ; (PC):	Actinopterygii 422030.B							
Sample ID: 0 Sample Date: 2 Receipt Date: 2 Sample Age: r Linear Interpole	07-8370-6763 24 Jan-22 24 Jan-22 n/a	Cod Mate CAS	e: erial: ; (PC):	422030.B			Sou	rce: In-l	Jouro Culture		
Sample Date: 2 Receipt Date: 2 Sample Age: r Linear Interpol	24 Jan-22 24 Jan-22 1/a	Mate CAS	erial: ; (PC):						iouse culture	9	Age:
Receipt Date: 2 Sample Age: r Linear Interpol	24 Jan-22 n/a	CAS	(PC):	POTW Effluent			Pro	ject: WE	T Quarterly (Complianc	e Test (1Q
Sample Age: r Linear Interpol	n/a						Sou	rce: NP	DES Permit #	(XX9999	9999)
Linear Interpol		Clie	nt:				Sta	ion: 001	В		
	ation Options		100	BMRI							
X Transform						1.5					
	Y Transform	See	d	Resamples	Exp 95%		0.0.4				
Linear	Linear	3270	021	1000	Yes	Two	Point Inter	olation			
Point Estimates	S										
Level %	95% LCL	95% UCL		95% LCL	- 755 (75)E C 75	0.0					
C5 >100	n/a	n/a	<1	n/a	n/a						
C10 >100	n/a	n/a	<1	n/a	n/a						
C15 >100	n/a	n/a	<1	n/a	n/a						
C20 >100	n/a	n/a	<1	n/a	n/a						
C25 >100	n/a	n/a	<1	n/a	n/a						
C40 >100 C50 >100	n/a n/a	n/a n/a	<1	n/a n/a	n/a n/a						
Mean Dry Biom	and a second second	. These		00.7	1992	culated Va	riato			Isotor	nic Variate
Conc-%	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	_	Mean	%Effect
0	D	4	0.433	0.388	0.476	0.04802	11.09%	0.0%		0.4604	0.0%
13	2	4	0.474	0.339	0.522	0.09003	18.99%	-9.47%		0.4604	0.0%
26		4	0.4742		0.552	0.07323	15.44%	-9.53%		0.4604	0.0%
52		4	0.4345	0.379	0.508	0.06221	14.32%	-0.35%		0.4582	0.47%
76		4	0.4788	0.365	0.572	0.08855	18.50%	-10.57%		0.4582	0.47%
100		4	0.4615	0.422	0.508	0.03538	7.67%	-6.58%		0.4582	0.47%
Mean Dry Biom	ass-mg Detail	57.20		1.5	12						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4						
0	D	0.388	0.473	0.476	0.395						
13		0.516	0.339	0.519	0.522						
26		0.552	0.376	0.475	0.494						
52		0.464	0.379	0.387	0.508						
76		0.518	0.365	0.46	0.572						
100		0.46	0.456	0.508	0.422						

Analyst: HW QA: 10

Appendix 4 – QA/QC and Reference Toxicant Test Chart

Quality Assurance Check List - Chronic Whole Effluent Toxicity Test

Client:	Battle Mountain Resources, Inc.
SeaCrest Sample No:	422030.B
Species Tested:	Ceriodaphnia dubia and fathead minnow

	Start Date of Test	Start Date of Test
Sample Dates	(Ceriodaphnia dubia)	(fathead minnow)
01-24-2022		•) · () · () · () · () · () · () · () ·
01-26-2022		
01-28-2022	01-24-2022	01-24-2022

Sample received in lab properly preserved (0-6°C)?	N*
Sample received at laboratory within 36 hours of collection?	Y
Sample delivered on ice or equivalent?	Y
Test initiated within 36-hours of collection?	Y
Test protocol conforms to CDPHE guidelines (Ceriodaphnia dubia)?	Y
Test protocol conforms to CDPHE guidelines (fathead minnow)?	Y
Average test temp. ±1°C (Ceriodaphnia dubia)?	Y
Average test temp. ±1°C (fathead minnow)?	Y
DO level ≥4.0mg/L; no super-saturation (Ceriodaphnia dubia)?	Y
DO level ≥4.0mg/L; no super-saturation (fathead minnow)?	Y
Survival in control ≥80% (<i>Ceriodaphnia dubia</i>)?	Y
Survival in control ≥80% (fathead minnow)?	Y
Ceriodaphnia dubia neonates <24-hours old?	Y
Fathead minnow larvae <24-hours old?	Y
Appropriate reference toxicity test conducted?	Y
Reference toxicity test results within the confidence limits for the lab?	Y

* Sample #1 was hand delivered at 7.3°C on the same day as sampling.

Author Hally Mert	Date February 4, 2022
Position: Laboratory Supervisor	0 /
Quality Control	Date 4 February 2022
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SeaCrest Group	36

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METHOD QC

Method	Analyte	Date	LCS (rec)	%REC	%RPD	QC LIMITS
2320 B	Alkalinity - Total	12/3/2021	101.60%	97.86%	3.51%	T F DD07
2320 B	Alkalinity - Total	12/10/2021	104.00%	101 68%	2 17%	
2320 B	Alkalinity - Total	12/17/2021	104 80%	%P0 20	2 850L	9,00,0
4500 NH3 D		12/3/2021	08 32%	100 86%	2 500/	%00.0∓
4500 NH3 D		12/10/2021	100.40%	100.60%	-1 30%	± 10.00%
4500 NH3 D) Ammonia	12/17/2021	105 00%	100 00%	70C8 U	E 10.00%
4500 CI D	Chlorine Chlorine	12/29/2021	%26.96	103 13%	70000	± 10.00%
2340 B	Hard	120212121	103 51%	100 0001	0,000	± 0.00, ± 20.00%
2340 B	Hardness - Total	1000/01/01	8/ 10:001	0/ 20.001	0.20%	± 5.00%
0000		1202/01/21	%00.701	89.00%	-2.00%	± 5.00%
0 0407		12/15/12/12/1	102.00%	101.00%	1.69%	± 5.00%
			LCS (rec)	%REC M1	%REC M2	OC I imite
4500 O	DO - Winkler	12/1/2021	N/A	100 00%	Q5 77%	+ E 000/
4500 O	DO - Winkler	12/9/2021	N/A	Q6 77%	04 7 AN	%00.0 F
A500 O	DO Minhor	TODOLOFICE		0/11/00	97.74 /0	± 5.00%
0 0000+	DO - WILIKIEL	1202/91/21	N/A	98.48%	97.06%	± 5.00%
			Blank	%REC MR S	%RPD	
2540 D	Suspended Solids (TTL)	12/2/2021	100.00%	93.40%	0.00%	+ 15%
2540 C	Dissolved Solids (TTL)	12/2/2021	%66.66	104.10%	0.00%	
	1 n n n					11
Signature:	: Nally When	LL.			Signature.	/ w
	000	C 040				
Date:	2 C MANNAI	JUUL			Date:	3 Juny 2022

SeaCrest Group 500 S Arthur Ave. Suite 450 Louisville, CO 80027 (303) 661.9324 FAX (303) 661.9325





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2 8425	2 8381	2 7030	0 7037	7885	2.8053	2.8032	2 7956	2 7747	2 7747	2 7769	2.7664	2 7966	2 8252	2 7425	2 7816	2 8150	2622 2	2 7874	2 7982
1.3806	1.3730	1 3515	1 3532	1 3544	1.3517	1.3962	1.3979	1.3939	1.3939	1.4948	1.4945	1.5357	1.4386	1.4777	1.5041	1.5342	1.5338	1.5310	1.5330
2.1115	2.1056	2.0722	2.0735	2.0715	2.0785	2.0997	2.0968	2.0843	2.0843	2.1359	2.1304	2.1661	2.1319	2.1101	2.1429	2.1746	2.1568	2.1592	2.1656
1.4400	2.0000	1.8000	2.0180	2.3330	2.3890	2.1250	2.3330	2.0710	2.1250	2.5000	2.2190	2.5000	1.5000	2.3330	2.5000	2.5000	2.1250	2.5000	2.3330
06/22/20	07/01/20	08/05/20	09/14/20	10/02/20	11/06/20	12/04/20	01/04/21	02/15/21	03/04/21	04/01/21	05/03/21	06/14/21	07/01/21	08/11/21	09/06/21	10/03/21	11/04/21	12/07/21	1/3/2022
	1.4400 2.1115 1.3806	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 1.8000 2.0722 1.3515	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 1.8000 2.0722 1.3515 2.0180 2.0735 1.3537	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 1.8000 2.0722 1.3515 2.0180 2.0735 1.3532 2.3330 2.0715 1.3544	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 1.8000 2.0722 1.3515 2.0180 2.0735 1.3532 2.3330 2.0735 1.3544 2.3890 2.0785 1.3517	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 1.8000 2.0722 1.3515 2.0180 2.0735 1.3532 2.3330 2.0735 1.3544 2.3390 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.362	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 1.8000 2.0722 1.3515 1.8000 2.0722 1.3515 2.0180 2.0735 1.3515 2.3330 2.0715 1.3544 2.3890 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0785 1.3617 2.3330 2.0968 1.3962	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 2.0000 2.0722 1.3515 1.8000 2.0735 1.3515 2.0180 2.0735 1.3515 2.3330 2.0715 1.3544 2.3330 2.0715 1.3544 2.3330 2.0785 1.3517 2.3330 2.0785 1.3573 2.3330 2.0785 1.3577 2.1250 2.0997 1.3962 2.3330 2.0968 1.3979 2.0710 2.0843 1.3939	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 2.0000 2.0735 1.3515 2.0180 2.0735 1.3515 2.0180 2.0735 1.3515 2.3330 2.0715 1.3544 2.3330 2.0715 1.3517 2.3330 2.0715 1.3517 2.3330 2.0715 1.3517 2.3330 2.0715 1.3517 2.3330 2.0715 1.3617 2.1250 2.0997 1.3962 2.1250 2.0968 1.3979 2.1250 2.0843 1.3939	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 2.0000 2.0735 1.3515 2.0180 2.0735 1.3515 2.0180 2.0735 1.3515 2.0180 2.0735 1.3515 2.0180 2.0735 1.3515 2.3330 2.0715 1.3544 2.3330 2.0715 1.3517 2.3330 2.0715 1.3517 2.3330 2.0715 1.3562 2.3330 2.0715 1.3562 2.1250 2.0968 1.3962 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1339 2.1359 1.4948	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 2.00180 2.0722 1.3515 2.0180 2.0735 1.3515 2.0180 2.0715 1.3544 2.3330 2.0715 1.3544 2.3330 2.0715 1.3544 2.3330 2.0785 1.3544 2.3330 2.0715 1.3562 2.3330 2.0715 1.3562 2.3330 2.0715 1.3962 2.1250 2.0968 1.3979 2.1333 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.1359 1.3939 2.1300 2.1359 1.4946	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 2.0180 2.0722 1.3515 2.0180 2.0735 1.3544 2.3330 2.0715 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0715 1.3562 2.3330 2.0715 1.3573 2.3330 2.0715 1.3979 2.1250 2.0968 1.3979 2.1330 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.1359 1.3939 2.1250 2.1359 1.3939 2.1250 2.1359 1.4948 2.1300 2.1364 1.4945 2.5000 2.1661 1.5357	1.4400 2.1115 1.3806 2.0000 2.056 1.3730 2.0180 2.0722 1.3515 2.0180 2.0735 1.3532 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3544 2.3330 2.0785 1.3562 2.1250 2.0843 1.3962 2.1250 2.0843 1.3939 2.1250 2.0843 1.3933 2.1250 2.1304 1.4945 2.1250 2.1304 1.4945 2.1200 2.1304 1.4945 2.5000 2.1304 1.4945 2.5000 2.1304 1.4945 2.1500 2.1319 1.4945 1.5357 1.5357 1.5357	1.4400 2.1115 1.3806 2.0000 2.0725 1.3730 2.0180 2.0735 1.3515 2.0180 2.0715 1.3515 2.0180 2.0715 1.3515 2.0180 2.0715 1.3515 2.0180 2.0715 1.3517 2.1250 2.0785 1.3544 2.3330 2.0715 1.3562 2.3330 2.0785 1.3562 2.3330 2.0785 1.3979 2.1250 2.0843 1.3979 2.1250 2.0843 1.3979 2.1250 2.0843 1.3979 2.1250 2.1369 1.3939 2.1250 2.1359 1.3939 2.1250 2.1359 1.3939 2.1250 2.1304 1.4946 2.2130 1.4945 1.4945 2.3330 2.1661 1.4945 2.3330 2.1661 1.4386 2.3330 2.1661 1.4345 2.3330 2.1661 1.4386 2.3330 2.1611 1.4777	1.4400 2.1115 1.3806 2.0000 2.1056 1.3730 2.0180 2.0722 1.3515 2.0180 2.0735 1.3515 2.0180 2.0735 1.3515 2.0180 2.0715 1.3532 2.3330 2.0715 1.3517 2.3330 2.0715 1.3517 2.3330 2.0785 1.3517 2.3330 2.0785 1.3517 2.1250 2.0785 1.362 2.1250 2.0968 1.3979 2.1250 2.0843 1.3979 2.1250 2.0843 1.3979 2.1250 2.0843 1.3979 2.1250 2.1369 1.3939 2.1250 2.1369 1.4948 2.1250 2.1319 1.4945 2.5000 2.1319 1.4386 2.3330 2.1661 1.4777 2.5000 2.1101 1.4777 2.5000 2.1429 1.4777	1.4400 2.1115 1.3806 2.0000 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2.1056 1.3730 2.0180 2.0735 1.3515 2.0180 2.0735 1.3532 2.0180 2.0715 1.3532 2.0180 2.0715 1.3532 2.3330 2.0715 1.3544 2.3330 2.0715 1.3544 2.3330 2.0716 1.357 2.1250 2.0843 1.3962 2.1250 2.0843 1.3939 2.0710 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.1359 1.3939 2.1250 2.1359 1.4945 2.1250 2.1661 1.4945 2.3330 2.1661 1.4736 2.3330 2.1661 1.4945 2.3330 2.1661 1.4945 2.3330 2.1661 1.4736 2.5500 2.1429 1.5342 2.1560 2.1568 1.5338 <



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+2 SD	1 4102	1 426400403	1 2064		1.3809	1.3866	1.3853	1.3701	1.3470	1.3625	1.3605	1.3461	1.3521	1 3499	1 3599	1 3375	1.3162	1 3367	1 3311	1.3076	1.3284
-2 SD	0.8400	0 787921907	0 7964	0 7064	1.081.0	0.7993	0.8049	0.7730	0.7653	0.7646	0.7475	0.7439	0.7472	0.7475	0.7508	0.7516	0.7574	0.7807	0.7830	0.7931	0.8016
Mean	1.1251	1.1072062	1 0907	1 0015	0100.1	1.0930	1.0951	1.0715	1.0562	1.0635	1.0540	1.0450	1.0496	1.0487	1.0553	1.0445	1.0368	1.0587	1.0570	1.0503	1.0650
IC25	1.0000	0.8	1.0450	1 2040		1.0270	1.0020	0.8229	0.9453	1.2100	0.9062	1.0030	1.1140	1.1340	1.1550	1.0180	1.0820	1.2630	1.1930	1,1450	1.2300
Date	06/22/20	7/1/2020	08/05/20	09/14/20		10/02/20	11/06/20	12/04/20	01/04/21	02/15/21	03/04/21	04/01/21	05/03/21	06/14/21	07/01/21	08/11/21	09/06/21	10/03/21	11/04/21	12/07/21	01/03/22

TEST DATE

FHM SURVIVAL LC25 NaCI REFTOX



+2 SD	5.9297	5.8293	5.8616	5.8617	5.9092	5.6597	5.4949	5.6685	5.6702	5.8429	6.1596	6.3925	6.4155	6.5101	6.7224	6.7226	6.7904	6.8135	6.8799	7.0713
-2 SD	1.8832	1.8990	1.9934	1.9931	2.0428	2.2040	2.2576	2.2017	2.1591	2.1464	2.0920	1.9849	1.7621	1.7345	1.6465	1.6644	1.7899	1.9442	1.9620	2.0849
Mean	3.9065	3.8642	3.9275	3.9274	3.9760	3.9318	3.8762	3.9351	3.9146	3.9947	4.1258	4.1887	4.0888	4.1223	4.1844	4.1935	4.2901	4.3788	4.4210	4.5781
IC25	2.8120	4.0740	4.3640	2.8830	4.4760	5.5000	4.0770	5.3330	3.2500	5.3330	6.1583	6.2160	2.3750	5.5000	6.2580	3.7000	5.1250	4.8750	5.2000	6.3570
Date	05/20/20	06/11/20	07/23/20	08/20/20	09/04/20	10/21/20	11/12/20	12/09/20	01/04/21	02/03/21	03/25/21	04/02/21	05/20/21	06/28/21	07/24/21	08/19/21	09/02/21	10/08/21	11/22/21	12/20/21

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+2 SD	7.0417	7.0360	7.1096	7.3316	7.3367	7.4156	7.4194	7.5481	7.5231	7.5375	7.5919	7.7295	7.8162	7.9113	7.9582	7.9619	8.0895	8.0905	8.0771	8.0788
-2 SD	2.2521	2.2479	2.2980	2.4157	2.4133	2.3802	2.4172	2.4402	2.3784	2.6088	2.5891	2.5395	2.2272	2.2267	2.5384	2.8247	2.8982	2.9074	3.0315	3.0309
Mean	4.6469	4.6419	4.7038	4.8737	4.8750	4.8979	4.9183	4.9941	4.9508	5.0732	5.0905	5.1345	5.0217	5.0690	5.2483	5.3933	5.4939	5.4990	5.5543	5.5549
IC25	2.8660	4.6820	5.4310	6.7500	6.5000	6.5770	4.6370	6.1720	4.2580	5.7680	6.5280	6.8650	2.7590	6.2200	6.5530	6.2310	6.6650	5.0481	5.3520	6.7310
Date	05/20/20	06/11/20	07/23/20	08/20/20	09/04/20	10/21/20	11/12/20	12/09/20	01/04/21	02/03/21	03/25/21	04/02/21	05/20/21	06/28/21	07/24/21	08/19/21	09/02/21	10/08/21	11/22/21	12/20/21
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Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

July 26, 2022

Colorado Department of Public Health and Environment Water Quality Control Division Attn: WQDC-B2 – DMR Receipt 4300 Cherry Creek Drive Denver, CO 80246-1530

Re: Battle Mountain Resources, Inc. San Luis Project - San Luis, Colorado Second Quarter 2022 – DMR's, BMP and WET Testing Reports CDPHE CDPS Permit No. CO0045675

Dear Sir or Madame:

Please find the enclosed Battle Mountain Resources, Inc. "San Luis Project" (Permit No. CO0045675) Colorado Department of Public Health and Environment-Colorado Discharge Permit System (CDPS) Best Management Practices (BMP) report for permitted outfall 002 for the second quarter 2022. The quarterly BMP report provides the required data associated with groundwater well elevations, the quarterly potentiometric surface map and groundwater well chemistry.

In addition, the second quarter 2022 Discharge Monitoring Reports (DMRs) were submitted for each of the permitted water treatment plant discharges in the NetDMR System and the WET Testing Reports were attached to the appropriate DMR submittal in NetDMR. These permitted discharges consist of water treatment plant Discharge Numbers 001-A and 001-B. During the quarter, the maximum 30-day average flow was 0.27 million gallons of water discharged per day, therefore the applicable permit criteria for the reporting period is associated with discharge number 001-B.

Should any questions arise or if I can be of any assistance providing clarification, please call me at (719) 379-0538.

Sincerely,

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File Devon Horntvedt, Newmont USA Limited Lawrence Fiske, Newmont USA Limited Tim Runnells, Engineering Analytics Alan Fosdick, Engineering Analytics

Battle Mountain Resources, Inc. San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

July 26, 2022

Colorado Department of Public Health and Environment Water Quality Control Division Attn: WQDC-B2 – DMR Receipt 4300 Cherry Creek Drive Denver, CO 80246-1530

Re: Battle Mountain Resources, Inc. San Luis Project Second Quarter 2022 BMP Report CDPHE CDPS Permit No. CO0045675

Dear Sir or Madame:

In accordance with and compliance of the permit limitations and permit terms and conditions contained in Part I, Section 5 <u>Discharge Point 002</u>: (Permit Limitations, Best Management Practices, and Schedule of Compliance of the *State of Colorado Authorization to Discharge Under the Colorado Discharge Permit System*, Battle Mountain Resources, Inc. submits the following *Quarterly Best Management Practices Report*.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 62.4, and the Colorado Discharge Permit System Regulations, Sections 61.8(2), 61.8(3)(n), and 61.8(3)(r), 5 C.C.R. 1002-61, the permittee shall continue to implement the following limitations, compliance schedules, and Best Management Practices (BMPs).

The attainment of applicable water quality standards will be implemented and evaluated through the application of the following limitations, compliance schedules, and BMPs that are designed to monitor and control the groundwater quality and quantity discharging from the West Pit to the Rito Seco alluvial aquifer.

Specifically, the limitations, compliance schedules, and BMPs are those activities that address contaminated groundwater that may flow into the Rito Seco. This includes: (1) the potential flow of the affected groundwater from the West Pit that, in the past, manifested itself in the formation of the surface seeps along the arroyo sidewall of the Rito Seco, and (2) the plume of affected groundwater within the Rito Seco alluvial aquifer downgradient of the West Pit that flows along the naturally occurring hydraulic gradient and that may flow into the Rito Seco. The activities will include the following specific requirements:

 The elevation of the groundwater table in the vicinity of the West Pit shall be measured on a weekly basis at the following locations: (i) the West Pit backfill wells BF-4 and BF-5 and (ii) the Rito Seco alluvial wells M-16 and M-20, as shown in Figure 3 of the permit, for purposes of determining the performance of the "pump and treat" system that regulates the flow and quality of the groundwater in the seepage front. The permittee shall also determine on a quarterly basis the elevations of the groundwater table at BF-3, BF-4, BF-5, BF-6, M-11R, M-16, M-17, M-18, M-19, M-20, M-21, M-22, M-23, M-24, M-25, M-26, M-27, M-28, M-29, M-30, M-31, M-32, and M-33 for the purpose of developing a groundwater potentiometric map as monitoring confirmation of the groundwater flow direction. The quarterly data regarding depth to groundwater and groundwater potentiometric surface map will be submitted to the WQCD with the BMP report as described.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the weekly West Pit backfill and alluvial wells as required under Paragraph 1 of the specific requirements. Measurements obtained for the weekly West Pit backfill wells (BF-4 and BF-5R) and alluvial wells (M-16 and M-20) are shown in Table 1. The quarterly groundwater elevations required under Paragraph 1 were also measured and are shown in Table 2. A potentiometric surface map, developed by Engineering Analytics, is shown in Figure 1. The groundwater table elevations and potentiometric map confirm that the groundwater flow gradient during the second quarter of 2022 was from the Rito Seco to the West Pit. No corrective action is required under Paragraph 1 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
	04/06/2022	8579.29
	04/13/2022	8579.33
	04/20/2022	8579.30
	04/27/2022	8579.35
	05/04/2022	8579.29
	05/11/2022	8579.32
BF-4	05/18/2022	8579.31
	05/25/2022	8579.28
	06/01/2022	8579.28
	06/08/2022	8579.38
	06/15/2022	8579.35
	06/22/2022	8579.29
	06/29/2022	8579.33
	04/06/2022	8579.07
	04/13/2022	8579.13
	04/20/2022	8579.08
	04/27/2022	8579.15
	05/04/2022	8579.09
	05/11/2022	8579.11
BF-5R	05/18/2022	8579.08
	05/25/2022	8579.05
	06/01/2022	8579.09
	06/08/2022	8579.14
	06/15/2022	8579.12
	06/22/2022	8579.09
	06/29/2022	8579.08

Table 1 – Weekly Groundwater Elevations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
	04/06/2022	8600.86
	04/13/2022	8600.88
	04/20/2022	8600.99
	04/27/2022	8601.19
	05/04/2022	8601.12
	05/11/2022	8601.47
M-16	05/18/2022	8601.50
	05/25/2022	8601.56
	06/01/2022	8601.59
	06/08/2022	8601.61
	06/15/2022	8601.58
	06/22/2022	8601.52
	06/29/2022	8601.57
	04/06/2022	8580.27
	04/13/2022	8580.40
	04/20/2022	8580.43
Γ	04/27/2022	8580.55
Γ	05/04/2022	8580.50
Γ	05/11/2022	8580.52
M-20	05/18/2022	8580.52
F	05/25/2022	8580.53
[06/01/2022	8580.57
[06/08/2022	8580.58
l F	06/15/2022	8580.67
l F	06/22/2022	8580.64
	06/29/2022	8580.70

Table 1 – Weekly Groundwater Elevations (continued)

Table 2 – Quarterly Groundwater Elevations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
BF-3	04/28/2022	8578.11
BF-4	04/28/2022	8579.38
BF-5R	04/28/2022	8579.15
BF-6	04/28/2022	8579.09
M-11R	04/28/2022	8550.17
M-16	04/28/2022	8601.20
M-17	04/28/2022	8586.97
M-18	04/28/2022	8581.04
M-19	04/28/2022	8581.51
M-20	04/28/2022	8580.55
M-21	04/28/2022	8577.35
M-22	04/28/2022	8572.76
M-23	04/28/2022	8555.55
M-24	04/28/2022	8559.17
M-25	04/28/2022	DRY
M-26	04/28/2022	8544.05
M-27	04/28/2022	DRY
M-28	04/28/2022	8580.11
M-29	04/28/2022	8581.45
M-30	04/28/2022	8609.10
M-31	04/28/2022	8549.80
M-32	04/28/2022	8525.67
M-33	04/28/2022	8531.55

2) The weekly groundwater table elevation data shall be tabulated and reported on the quarterly BMP reports, and the data will be used to evaluate compliance with the following permit limitations.

The groundwater table elevation, based on the average of all measured values for each calendar month in the West Pit backfill groundwater monitoring wells BF-4 and BF-5, must be equal to or lower than an elevation of 8582 feet above sea level (ft. amsl).

Compliance Action Taken: Battle Mountain Resources, Inc. measured the West Pit backfill monitoring wells (BF-4 and BF-5R) weekly and the measurements are shown in Table 1. The groundwater measurements for wells BF-4 and BF-5R were averaged by calendar month and the results are shown in Table 3. The April, May, June 2022 averages were below the 8582 ft. amsl required in Paragraph 2. No corrective action is required under the Paragraph 2 requirement and schedule compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Month (2022)	Number of Observations	Average Monthly Groundwater Elevation (ft amsl)
	April	4	8579.32
BF-4	May	4	8579.30
	June	5	8579.33
	April	4	8579.11
BF-5R	May	4	8579.08
	June	5	8579.10

Table 3 – Quarterly West Pit Backfill Monthly Average Groundwater Table Elevations

3) If the average monthly groundwater table elevation in the West Pit backfill for any calendar month, measured as described in the above paragraph, is greater than 8582 ft. amsl or the quarterly determination of the groundwater potentiometric surface map indicates that the flow of the groundwater is from the West Pit to the Rito Seco alluvium, the permittee shall verbally communicate such condition to WQCD within 24 hours of the determination of the condition (elevated West Pit backfill table or groundwater flow from the West Pit as indicated by the quarterly groundwater potentiometric surface map) and initiate the following compliance schedule.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the West Pit backfill monitoring wells (BF-4 and BF-5R) weekly and the calendar month average groundwater measurement elevations (Table 3) were below the 8582 ft. amsl required in Paragraph 2. The April 28, 2022, potentiometric surface map (Figure 1) shows the groundwater flow gradient was from the Rito Seco alluvium to the West Pit backfill. Therefore, site operations demonstrated the West Pit backfill groundwater level was maintained at or below an elevation of 8582 ft. amsl through the quarter. Therefore, no requirement(s) to initiate actions contained within the schedule of compliance for Section 5.3 is required.

4) The quality of groundwater in the vicinity of the West Pit shall be monitored on a monthly basis in the Rito Seco alluvial groundwater monitoring wells M-19, M-21, M-24 and M-11R for the purposes of monitoring the changes in the quality of the plume or affected groundwater in the Rito Seco alluvial aquifer. Groundwater quality in these monitoring wells will be analyzed for pH, temperature, total dissolved solids, calcium, sulfate, manganese, fluoride, copper, and iron for the purpose of evaluating the status of the groundwater quality in the downgradient groundwater plume. The groundwater quality data will be summarized and transmitted to the WQCD in the quarterly BMP report required under Part I, Section E.1 of this permit.

Compliance Action Taken: Battle Mountain Resources, Inc. collected monthly groundwater samples in the vicinity of the West Pit backfill area from Rito Seco alluvial monitoring wells M-19, M-21, M-24 and M-11R. No corrective action is required under the Paragraph 4 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Analyte	Reporting	Sample		Monitoring V	Vell Identifier	
Analyte	Units	Date	M-11R	M-19	M-21	M-24
		04/07/2022	6.98	6.25	6.65	6.93
pH	SU	05/04/2022	7.05	6.40	6.70	6.88
		06/01/2022	7.19	6.49	6.78	6.93
		04/07/2022	9.2	6.6	7.9	8.1
Temperature	°C	05/04/2022	9.5	7.6	9.5	8.9
-		06/01/2022	9.8	7.1	10.9	8.6
		04/07/2022	88.7	21.1	32.8	84.2
Calcium, Total	mg/L	05/04/2022	70.3	20.0	32.3	84.0
		06/01/2022	70.4	19.8	31.8	84.2
		04/07/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.002
Copper, Dissolved	mg/L	05/04/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.002
		06/01/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.002
		04/07/2022	0.875	0.843	1.41	0.747
Fluoride	mg/L	05/04/2022	0.933	0.794	1.40	0.804
		06/01/2022	LT 1.25	0.748	1.35	LT 1.25
		04/07/2022	LT 0.15	0.150	LT 0.15	4.30
Iron, Dissolved	mg/L	05/04/2022	LT 0.15	LT 0.15	LT 0.15	4.36
		06/01/2022	LT 0.15	LT 0.15	LT 0.15	4.44
		04/07/2022	0.308	0.234	0.384	0.899
Manganese, Dissolved	mg/L	05/04/2022	0.172	0.144	0.372	0.903
		06/01/2022	0.155	0.119	0.367	0.900
		04/07/2022	152	9.63	12.3	160
Sulfate	mg/L	05/04/2022	94.6	12.5	12.2	169
		06/01/2022	79.0	10.7	10.8	143
		04/07/2022	404	84	134	406
Total Dissolved Solids	mg/L	05/04/2022	314	102	142	436
	-	06/01/2022	302	98	128	418

Table 4 – Rito Seco Alluvial Groundwater Quality Summary

5) The historical seeps were caused by the plume of affected groundwater and may, in the future, also be caused by natural variation in the flow of groundwater in the vicinity of the area where the past seeps occurred. The permittee shall conduct a monthly visual inspection of the area of historical seeps and the permittee shall report any seepage flow that is associated with the area historic seepage expression, as is identified in Figure 2 of the permit. Results of the seep monitoring shall be tabulated and summarized in the quarterly BMP report.

If these inspections identified the occurrence of seeps, the permittee will be required to communicate verbally to the WQCD within 24 hours of the seepage observation, followed by written notification within 7 calendar days of the seepage observation. Verbal updates will then be provided to the WQCD every second day thereafter until the WQCD has made a determination regarding the status of the West Pit groundwater control system through the implementation of the following compliance schedule.

Compliance Action Taken: Battle Mountain Resources, Inc. performed monthly visual seepage expression inspections in the historic seepage area identified in Figure 2 of the permit. Visual observations during these inspections are shown in Table 5. No seepage expressions were observed in the historic seepage area during the second quarter of 2022. Therefore, no verbal or written notifications were required and the implementation of the compliance schedule was not required. No corrective action is required under the Paragraph 5 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Visual Inspection Date	Was Visual Observation of Seepage Determined in the Area of the Historic Seepage Expression	Comments
04/28/2022	No	All Dry
05/31/2022	No	All Dry
06/30/2022	No	All Dry

 Table 5 – Monthly Seepage Expression Inspection Tabulation

6) The BMP for the groundwater flow downgradient from the groundwater divide (see section VI.A.2 for the Rationale) that has been developed in the Rito Seco alluvial aquifer consists of a groundwater capture system in conjunction with groundwater table elevation control in the West Pit. The water management plan for the Rito Seco alluvial aquifer consists of pumping two groundwater capture wells (M-32 and M-33) located downgradient of the plume of affected groundwater. This action will allow flushing of constituents in the groundwater from the Rito Seco alluvial aquifer in that portion (plume) of the aquifer affected by previous flow of groundwater from the West Pit. Measurements of the groundwater table elevations will be taken on a weekly basis from M-32 and M-33. This data shall be tabulated and reported for outfall 002 on the quarterly BMP report, and the data will be used to evaluate compliance with the following permit limitation.

The groundwater table elevation, based on the average of all measured values for each calendar month at M-32 and M-33 in the Rito Seco alluvial aquifer, must be equal to or lower than an elevation of 8540 ft. amsl.

If the average monthly groundwater table elevations measured in the Rito Seco alluvial aquifer at M-32 and M-33 is greater than 8540 ft. amsl, the permitee shall initiate the following compliance schedule within 24 hours of the determination of groundwater table elevation exceedance.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the alluvial aquifer monitoring wells (M-32 and M-33) weekly and the resulting elevations are presented in Table 6. The groundwater elevations for wells M-32 and M-33 were averaged by calendar month and the results are shown in Table 6. The April, May, June 2022 averages were below the 8540 ft. amsl required under Paragraph 6. Therefore, site operations were in full compliance of Part I, Section 5.5 and there were no requirements(s) to initiate actions contained within the schedule of compliance for Section 5.5. No corrective action is required under Paragraph 6 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)	Month (2022)	Average Monthly Groundwater Elevation (ft amsl)
	04/06/2022	8527.16	April	8528.40
	04/13/2022	8525.55		
	04/20/2022	8532.04		
	04/27/2022	8531.60		
M-32	04/28/2022	8525.67		
141-52	05/04/2022	8528.16	May 8528.83	8528.83
	05/11/2022	8529.11		
	05/18/2022	8529.18		
	05/25/2022	8528.88		
	05/31/2022	8528.83		

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)	Month (2022)	Average Monthly Groundwater Elevation (ft amsl)	
	06/01/2022	8528.79			
	06/08/2022	8528.67		8528.76	
M-32	06/15/2022	8528.48	Juna		
IVI-32	06/22/2022	8528.75	June		
	06/29/2022	8528.89			
	06/30/2022	8528.97			
	04/06/2022	8530.18		8532.07	
	04/13/2022	8532.64	April		
	04/20/2022	8534.09			
	04/27/2022	8531.90			
	04/28/2022	8531.55			
	05/04/2022	8532.61		8532.10	
	05/11/2022	8526.61			
N 22	05/18/2022	8532.07	May		
M-33	05/25/2022	8534.52			
	05/31/2022	8534.67			
	06/01/2022	8533.90	Ţ	9524.62	
	06/08/2022	8534.75			
	06/15/2022	8534.69			
	06/22/2022	8534.70	June	8534.63	
	06/29/2022	8534.83			
	06/30/2022	8534.89			

Table 6 (Cont) – Weekly/Monthly Rito Seco Alluvial Aquifer Average Groundwater Table Elevations

7) The water quality of the Rito Seco will be assessed using surface water quality collected at RS-2, as shown in Figure 3. Surface water monitoring in the Rito Seco shall be conducted at RS-2 on a monthly basis and the laboratory analytical results shall be submitted to the WQCD in the quarterly BMP report. Water quality samples collected at RS-2 shall be analyzed for the following constituents: calcium, magnesium, sodium, potassium, ammonia, total dissolved solids, total hardness, pH, total suspended solids, cyanide (WAD and total), bicarbonate, alkalinity, chloride, sulfate, nitrate-nitrite, fluoride and the total and dissolved concentrations of aluminum, arsenic, barium, boron, cadmium, copper, chromium, iron, lead, manganese, mercury, nickel, selenium, silica, silver and zinc. The following compliance schedule shall be implemented in the event that any constituent exceeds the applicable water quality standards for the Rito Seco.

Compliance Action Taken: Battle Mountain Resources, Inc. collected monthly surface water samples in April, May, June 2022 at location RS-2, as shown in Figure 3 of the permit. Results of analyses performed on these samples are shown in Table 7. The results of the laboratory analytical testing show that the applicable water quality standards were met for the Rito Seco during the months of April, May, June 2022. Site operations were in full compliance of Part I, Section 5.7 and there was no requirement(s) to initiate actions contained within the schedule of compliance for Section 5.7. Scheduled compliance monitoring will continue unchanged next quarter.

Table 7 – RS-2 Surface Water Quality Results

Analyte	Reporting Units	04/06/2022	05/04/2022	06/01/2022
Alkalinity	mg/L as CaCO ₃	56.3	54.7	51.6
Aluminum, Dissolved	mg/L	LT 0.25	LT 0.25	LT 0.25
Aluminum, Total	mg/L	0.530	0.395	LT 0.25
Ammonia as N	mg/L	LT 0.2	LT 0.2	LT 0.2
Arsenic, Dissolved	mg/L	LT 0.001	LT 0.001	LT 0.001
Arsenic, Total	mg/L	LT 0.001	LT 0.001	LT 0.001
Barium, Dissolved	mg/L	LT 0.035	LT 0.035	LT 0.035
Barium, Total	mg/L	0.032	LT 0.035	LT 0.035
Bicarbonate as CaCO3	mg/L	56.3	54.7	51.6
Boron, Dissolved	mg/L	LT 0.1	LT 0.1	LT 0.1
Boron, Total	mg/L	LT 0.1	LT 0.1	LT 0.1
Cadmium, Dissolved	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Cadmium, Total	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Calcium, Total	mg/L	15.6	15.5	14.9
Carbonate as CaCO3	mg/L	LT 20	LT 20	LT 20
Chloride	mg/L	2.62	LT 2.0	3.97H
Chromium, Dissolved	mg/L	LT 0.002	LT 0.002	LT 0.002
Chromium, Total	mg/L	LT 0.002	LT 0.002	LT 0.002
Copper, Dissolved	mg/L	LT 0.002	LT 0.002	LT 0.002
Copper, Total	mg/L	LT 0.002	LT 0.002	LT 0.002
Cyanide, Total	mg/L	LT 0.01	LT 0.01	LT 0.01
Cyanide, WAD	mg/L	LT 0.01	LT 0.01	LT 0.01
Fluoride	mg/L	0.77	0.72	0.82
Hardness as CaCO3	mg/L	54	54	52
Iron, Dissolved	mg/L	0.154	0.165	0.265
Iron, Total	mg/L	0.740	0.643	0.567
Lead, Dissolved	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Lead, Total	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Magnesium, Total	mg/L	4.14	4.10	4.03
Manganese, Dissolved	mg/L	LT 0.05	LT 0.05	LT 0.05
Manganese, Total	mg/L	0.060	LT 0.05	LT 0.05
Mercury, Dissolved	mg/L	LT 0.001	LT 0.001	LT 0.001
Mercury, Total	mg/L	LT 0.001	LT 0.001	LT 0.001
Nickel, Dissolved	mg/L	LT 0.001	LT 0.04	LT 0.04
Nickel, Total	mg/L	LT 0.04	LT 0.04	LT 0.04
Nitrate+Nitrite as N	mg/L	LT 0.1	LT 0.1	LT 0.1
pН	SU	7.27	6.84	6.99
Potassium, Total	mg/L	1.11	1.24	1.14
Selenium, Dissolved	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Selenium, Total	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Silica, Total	mg/L	12.0	12.8	11.3
Silver, Dissolved	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Silver, Total	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Sodium, Total	mg/L	8.39	5.04	10.2
Sulfate	mg/L	15.8	7.61	16.0
Total Dissolved Solids	mg/L	92	86	100
Total Suspended Solids	mg/L	LT 20	LT 20	LT 20
Zinc, Dissolved	mg/L	LT 0.05	LT 0.05	LT 0.05
Zinc, Total	mg/L	LT 0.05	LT 0.05	LT 0.05

8) If any component of the groundwater control system is not performing within the limits set forth in this permit, the permittee will be required to initiate appropriate compliance schedule activities, including the preparation of a response plan, for any and all components of the groundwater control system that do not meet the applicable

requirements. The permittee shall also conduct weekly sampling at RS-2 until such time as the other compliance schedule activity(ies) have been completed.

Compliance Action Taken: As demonstrated by the information and data presented in this report, all components of the groundwater control system performed within the limits set forth in the permit. Therefore, site operations were in full compliance of Part I, Section 8 and there was no requirement(s) to initiate actions contained within the schedule of compliance for Section 8.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is to the best of my knowledge and belief, is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Julio Madrid	Signature:	Julis Fland	
		-	1	

Date: July 26, 2022





May 27, 2022

Julio Madrid Battle Mountain Resources, Inc. P.O. Box 310 San Luis, CO 81152

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Dear Julio:

Enclosed is the report for chronic biomonitoring tests performed for Battle Mountain Resources, Inc. on effluent from the 001B outfall. There was no statistically significant toxicity to either test species at any effluent concentration. The effluent passes WET (Whole Effluent Toxicity) testing requirements for this sampling period.

If you have any questions or concerns, please do not hesitate to contact me at (303) 661-9324.

Best regards,

Hally Weit

Haley West Laboratory Supervisor Enclosure(s): Invoice Report
REPORT OF CHRONIC BIOMONITORING TESTS CONDUCTED FOR BATTLE MOUNTAIN RESOURCES, INC. ON EFFLUENT FROM THE 001B OUTFALL

Prepared for:

Julio Madrid Battle Mountain Resources, Inc. P.O. box 310 San Luis, CO 81152

Prepared by:

Haley West SeaCrest Group 500 S Arthur Ave. Suite 450 Louisville, Colorado 80027-3065 (303) 661-9324

May 27, 2022

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Chronic Toxicity Test Summary

Test:	7-day static renewal using <i>Ceriodaphnia dubia</i> 7-day static renewal using fathead minnow (<i>Pimephales promelas</i>)
Client:	Battle Mountain Resources, Inc.
Test Procedure Followed:	<i>Ceriodaphnia dubia</i> : EPA/821/R-02-013. Method 1002.0 (2002) fathead minnow: EPA/821/R-02-013. Method 1000.0 (2002)
Sample Number:	422236.B
Dilution Water:	moderately hard laboratory reconstituted water
Test Organism Source:	SeaCrest Group
Reference Toxicant:	Sodium Chloride

Sample	Time of Collection	Date of Collection	Time of Receipt	Date of Receipt
Effluent 1	0600	05-16-2022	1015	05-16-2022
Effluent 2	0600	05-18-2022	1145	05-18-2022
Effluent 3	0600	05-20-2022	1000	05-20-2022

	Ceriodaphnia dubia	fathead minnow	
Test Initiation Time	1330	1400	
Test Initiation Date	05-16-2022	05-16-2022	
Test Completion Time	1430	1430	
Test Completion Date	05-22-2022	05-23-2022	

Client: BMRI CO Site: 001B	D-0045675	SCG Project No.: 422236.B Project: Quarterly WET
Abst	ract with Result	s
Test Concentrations:	Control (0%),	13%, 26%, 52%, 76%, 100%
	10 for Cerioda	phnia dubia
Number of Organisms/Concentration:	40 for fathead	minnow
	10 for Cerioda	phnia dubia
Replicates at each Concentration:	4 for fathead m	iinnow

	Ceriodaphnia dubia	fathead minnow
Test vessel size/Exposure volume	30ml/15ml	500ml/200ml
Sub-lethal NOEL/IC25	100%/>100%	100%/>100%
Pass/Fail Status	PASS	PASS
Temperature Range (°C)	24.1 - 25.9	24.1 - 25.9
Dissolved Oxygen Range (mg/L)	6.8 - 8.7	5.7 - 7.7
pH Range	7.5 - 8.3	7.8 - 8.4
	Control (<i>Cerio</i> /FHM)	Effluent Sample
Hardness (mg/L as CaCO ₃)	85/98	47/39/29
Alkalinity (mg/L as CaCO ₃)	64/57	17/18/18
Total residual chlorine (mg/L)	< 0.01	< 0.01
Total ammonia (mg/L as NH3)	< 0.03	0.06/<0.03/<0.03

INTRODUCTION

Biomonitoring provides an effective means by which the toxicity of discharges from municipal, industrial, and mining operations can be tested. Among the advantages of biomonitoring is the ability to test complex effluents containing a broad range of contaminants. Biomonitoring, when used in conjunction with chemical analyses, can generate data capable of identifying a much wider range of contaminants.

The Colorado Water Quality Control Division requires certain NPDES permittees to perform acute and/or chronic biomonitoring tests. The chronic test measures significant differences in lethality and in reproduction (*Ceriodaphnia dubia*) or growth (fathead minnow – *Pimephales promelas*) between control and effluent-exposed organisms.

The present report discusses the results of chronic biomonitoring tests conducted on effluent from the Battle Mountain Resources, Inc. 001B discharge. These tests were conducted in accordance with EPA and State of Colorado procedures in May 2022.

MATERIALS AND METHODS

Sample Collection

Two gallons of the effluent were collected on three separate dates as specified in Permit CO-0045675. Samples were delivered chilled to the SeaCrest lab where they were held at 0-6°C. Chain of custody forms showing sample collection and laboratory arrival times are included (Appendix 1).

Dilution Water

Laboratory reconstituted water was used as both the dilution water source and the control for the tests. Reconstituted water for the *Ceriodaphnia dubia* test was produced by adding sodium bicarbonate, calcium sulfate, magnesium sulfate, potassium chloride, and sodium selenate to deionized water. Reconstituted water for the fathead minnow test was produced by adding sodium bicarbonate, calcium sulfate, magnesium sulfate, and potassium chloride to deionized water.

Test Organisms

The biomonitoring test used *Ceriodaphnia dubia*, cultured in the SeaCrest laboratory. The organisms are cultured in brood culture boards from which individual females are monitored for survival and reproduction for periods of up to two weeks. Neonates less than 24-hours old, released from third or subsequent broods of eight or more within an 8-hour period, are collected from the brood chambers and used in tests. The animals are fed daily with a mixture of Yeast, Cereal Leaves, and Trout Chow (YCT), produced in-house. This is supplemented with cultured green algae *(Selenastrum capricornutum)* provided by Aquatic Biosystems.

Less than one-day-old fathead minnow, cultured in the laboratory, were also used in the test. Adult fish are maintained in 10-gallon aquaria where females deposit their eggs on the under-surface of split PVC pipe sections. The eggs are collected daily and transferred to aerated containers where they hatch after three to four days. The larval fish are fed newly hatched brine shrimp (*Artemia* sp.) at least twice per day.

In-house organisms are tested monthly in a reference toxicant test using sodium chloride to monitor overall health and test reproducibility (Appendix 4).

Test Procedures

Upon receipt at the lab, samples were analyzed for alkalinity, ammonia, chlorine, conductivity, dissolved oxygen, hardness, and pH.

Methods used in chemical analysis

Alkalinity	EPA 310.2	Hach 8203	1-2030-85.2	
Ammonía	SM4500-NH3, C-E1997	ASTM D1426-08		
Chlorine	SM4500-CI D	Hach 10026		
Conductivity	SM2510			
Dissolved Oxygen	SM4500-O	Electrode: G-2001	Winkler (QC): B-F-2001	
Hardness	SM2340 B or C	Hach 8213		
pH	SM4500-H+ B-2000			

The test followed procedures in EPA³ and CDPHE⁴ guidelines. Exposure concentrations included control (0%), 13%, 26%, 52%, 76%, and 100% mixtures, diluted with moderately hard laboratory reconstituted water.

Individual *Ceriodaphnia dubia* were placed in 30ml plastic containers containing approximately 15ml of exposure medium. Ten replicates at each concentration were used. The animals were fed daily with the YCT mixture and an equal volume of the green algae *(Selenastrum capricornutum)*. The exposure medium was changed daily in each container and the number of young released overnight were counted and recorded. Young were removed from the containers daily and discarded. Routine measurements were made each day of temperature, dissolved oxygen, and pH before and after the water changes.

Fathead minnow were exposed in 500ml plastic cups to which 250ml of media was replaced daily. Four replicates were used at each concentration. Ten fish, less than 24-hours old, were placed in each cup. The fish were monitored daily for survival and fed live brine shrimp at least twice per day. After seven days, the fish were removed from the cups, euthanized with isopropyl alcohol, and then placed in aluminum pans and dried in an oven for a minimum of six hours at 100°C. The pans were then weighed on a five-place analytical balance to determine the average dry weight of the fish from each replicate.

Data Analysis

Data from the tests were analyzed on a personal computer using the CETIS program (developed by Tidepool Scientific Software). Statistical tests used in the analyses are shown in Table 1. Test acceptability was determined using control survival and reproduction/growth criteria, concentration-response relationships, and percent minimum significant differences (USEPA ^{5,6}).

Table 1. Statistical methods used in testir	g for significant differences in test parameters.
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v	ariance	D	Distribution		
Bartlett Equality of Variance Test		Shapiro-Wilk W Normality Test			
	Statistical	Difference			
Species	Survival	Growth	Reproduction	IC ₂₅	
Ceriodaphnia dubia	Fisher Exact/Bonferroni- Holm Test	N/A	Dunnett Multiple Comparison Test	ICp	
fathead minnow	N/A	Dunnett Multiple Comparison Test	N/A	ICp	

RESULTS

Ceriodaphnia dubia Test Results

Test results for the *Ceriodaphnia dubia* are summarized in Table 2 and provided on the data sheets located in Appendix 2. Survival was 90% in the 100% effluent and was 100% in the remaining effluent concentrations. Control survival was 100%. No statistically significant lethality was measured in any effluent concentration when compared to the control. The NOEL (No Observed Effect Level) for lethality was 100% and the LC₂₅ (Lethal Concentration 25) for lethality was >100%.

Average number of neonates was 20.8 in the 100% effluent concentration and ranged from 17.2 - 22.9 in the remaining effluent concentrations. Average number of neonates in the control was 21.5 for statistical analyses and test acceptability criteria. No statistically significant differences in the number of neonates were found between the control and any effluent concentration. The NOEL for reproduction was 100% and the IC₂₅ (Inhibition Concentration 25) for reproduction was >100%.

	Percent Survival	Mean Neonates		Min. Max.	Significant Difference	
Concentration			Min.		Lethality	Reprod.
Control (0%)	100	21.5	12	35		1.1
13%	100	17.2	5	28	1	
26%	100	19.9	10	30		
52%	100	22.9	13	32		
76%	100	21.5	9	34		Parties and
100%	90	20.8	11	31		

Table 2. Summary of *Ceriodaphnia dubia* test results. An asterisk (*) denotes a statistically significant difference from the control.

Fathead Minnow Test Results

Client: BMRI

Site: 001B

Fathead minnow results are summarized in Table 3 and are provided on data sheets in Appendix 3. Survival was 100% in the 100% effluent concentration and was 100% in the remaining effluent concentrations. Control survival was 100%. No statistically significant lethality was measured in any effluent concentration when compared to the control. The NOEL for lethality was 100% and the LC₂₅ for lethality was >100%.

Average weight in the 100% effluent concentration was 0.274mg and ranged from 0.276mg - 0.303mg per individual in the remaining effluent concentrations. Average weight for the control fish was 0.252mg for statistical analyses and test acceptability criteria. No statistically significant differences for growth were measured in any effluent concentration when compared to the control. The NOEL for growth was 100% and the IC₂₅ for growth was >100%.

	Percent	Average	Min.		Significant Difference	
Concentration	Survival	Weight (mg)		Min. Max.	Min. Max. Lethali	Lethality
Control (0%)	100	0.252	0.219	0.313		
13%	100	0.291	0.250	0.321	j	
26%	100	0.303	0.251	0.373		1
52%	100	0.283	0.253	0.311		
76%	100	0.276	0.259	0.303		
100%	100	0.274	0.250	0.307		

Table 3. Summary of fathead minnow test results. An asterisk (*) denotes a statistically significant difference from the control.

Test Acceptability

Acceptable control survival (80%) was achieved in both tests. Similarly, *Ceriodaphnia dubia* reproduction (average 15 neonates/organism) and fathead minnow growth (average 0.250mg/test container) in control organisms met required levels. PMSD was within the required limits for an acceptable test (Table 4).

Table 4. PMSD for chronic test parameters.

	fathead min	now growth	C. dubia reproduction			
	Lower bound	Upper bound	Lower bound	Upper bound		
PMSD	12	30	13	47		
(% Minimum significant difference)	22	.8	35.1			

DISCUSSION

A failed test for this discharge occurs when there is an NOEL or IC_{25} less than the IWC (Instream Waste Concentration) of 52%. The NOEL represents the highest effluent concentration at which no statistically significant effect is observed. The IC_{25} represents an estimate of the effluent concentration that would cause a 25 percent reduction of a non-quantal biological measurement. A violation for this discharge occurs when both the NOEL and the IC_{25} are less than the IWC. Since neither test species demonstrated statistically significant differences meeting these criteria, the discharge passes WET testing requirements for this sampling period.

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Appendix 1 - Chain of Custody with Sample Receipt Forms

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ient,	onta	Addre Phone Fax #	Report By:	Sam	W.										edne		Duc

Observation good water flow. Power on to Sampler , Sample Container on ice Observation gived water flow, Power on to Sampler. Sample Container on Intalhoron antalher in Observation and Water Flow Rower on to Sampler Sample Container Wantaner ON ~3 Hour Time 0900 Observation good water More, power on to Sampler, Sample Contra gallons undro (ondu. Di Carlão Observation good water thay power on to Sampler, Sample . Observation and WAter flow, Pewer on to Sampler, SAmple Battle Mountain Gold Mine NPDES WET Test Log Volume sent to lab ~6 Hour Time 1200 Observation good winter Port Doner on to Sampher . Lucero, S. Marsfas Date 5/16/22 Circle One: (M) W F BUDEN minutes Observation good water fire 10 GPM ml per Sampling Personnel: A. Taulor. A gallons freatment System Flow Rate 510. 0600 BMRI Delivered B Total Volume Collected 4 Start Sample Program: Time End Sample Program: Time_ Samples packed on ice 🏷 -24 Hour Time 0 600 ISCO Sampling Schedule ~18 Hour Time 2400 ~21 Hour Time 0300 ~15 Hour Time 2100 ~9 Hour Time 1500 ~12 Hour Time 1800 UPS pick up on tin Completed COC Cooler Sealed

SeaCrest Group Louisville, CO

1

Sample Receipt Form

Date: Samples				Initials:	15		
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	ed Within 3 Notes:	36hr Holding Ti	me		Ŷ	N	
6. Aeratio	n necessai	ry			Y	(N)	
7. pH adju	istment ne	cessary			Y	(\mathbf{N})	
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0 Decorin		No Nable	dor, and/or Preser ℯ∕∽		te Matter).		
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	Receiving:		es:		Y	N	
	Receiving: Presence	of native specie	<u></u>		Y	N	
Lab #	Receiving: Presence Temp	of native specie	H Cond		Y	N	
	Receiving: Presence	of native specie	H Cond		Y	N	
Lab #	Receiving: Presence Temp	of native specie	H Cond		Y		
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Lab # ԿԱՏԵն Այ	Receiving: Presence Temp (). 4 °¢ Seals:	of native specie D.O. p 7.5 8.5	H Cond		Y		
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1. Lu			Phone # 7/9 -379 ~ 0827 E-Mai	(A Samp	X Mail DPF	Sample Location or ID Date	Test 5/18/22				Turnaround Requirements (Analytical Testing Only)		3-5 Day1 Requested Report Date:	Relinquished By (1)	ł

Observation good water flow, power onto Sampler, Sample Container on ice Observation good water flow power onto Sampler Sample Container on ice -3 Hour Time 0900 Observation good water flow, power on to Sampler, Sample Container UN. ~6 Hour Time 1200. Observation good weeken flow, power on the Sampler, Sample Contrinue on ice contature on Observationgood water flow, pourer on to Sampler, Sample contamer alier gallons molet. Sample contal 2 Observationgood water flow, power on to sumpler, sample Battle Mountain Gold Mine NPDES WET Test Log Volume sent to lab Observationgood water flow on word on to Sempler Sampling Personnel: RLucex0, D. Carino, A. Taylor, S. Maestus 2 Date 5-18-22 Circle One: M W F Observationgood when your on minutes 10 freatment System Flow Rate 540. GPM ml per gallons End Sample Program: Time 0600 Start Sample Program: Time 0600 BMRI Delivered IX7 100 Total Volume Collècted 4 Samples packed on ice 🕅 -24 Hour Time Oboo ~21 Hour Time 0300 SCO Sampling Schedule ~9 Hour Time 1500 ~15 Hour Time 2100 ~18 Hour Time 2400 ~12 Hour Time 1800 Completed COC Cooler Sealed

SeaCrest Group Louisville, CO

Sample Receipt Form

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6. Aeratio	on necessa	ıry				Y	N	
7. pH adj	ustment ne	eessary				Y	N	
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Battle Mountain Gold Mine NPDE'S WET Test Log

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Sample Receipt Form

SeaCrest Group Louisville, CO

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5. Receive	ed Within Notes:	36hr Holdi	ng Time			Ŷ	N	
6. Aeratio	n necessa	iry				Y	N	
7. pH adju	stment ne	ecessary				Y		
		l at Tempe ne clay sau		tween 0-6° C		Y	Ν	NA
	Effluent: /	lo visible	or, Odor, a ℓM	and/or Presen	ce of Particul	ate Matter)		
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4. Unbroke	en on San	nple		Y	N	(NA)		

Custody Documentation (Chain of Custody):

1. Present Upon Receipt of Sample

Y

Appendix 2 - Data Sheets for the Ceriodaphnia dubia Test

Client: BMRI Site: 001B

WET TEST REPORT FORM – CHRONIC

Permittee:	Battle Moun	tain Resources, Inc	0.	
Permit No.:	CO-0045675			
Outfall:	001B – IWC	: 52%		
Test Type:	Routine 🖂	Accelerated 🗌	Screen 🗌	
Test Species:	Ceriodaphni	a dubia		

Test Start Time	Test Start Date	Test End Time	Test End Date
1330	05-16-2022	1430	05-22-2022

Test Results	Lethality/TCP3B	Reproduction/TKP3B
S code: NOEL	100%	100%
	PASS	PASS
P code: LC ₂₅ /IC ₂₅	>100%	>100%
	PASS	PASS
T code:	>100%	>100%

Test Summary

Measurements	Control (0%)	13%	26%	52%	76%	100%
Exposed organisms	10	10	10	10	10	10
Survival for day 1	10	10	10	10	10	10
Survival for day 2	10	10	10	10	10	10
Survival for day 3	10	10	10	10	10	10
Survival for day 4	10	10	10	10	10	10
Survival for day 5	10	10	10	10	10	10
Survival for day 6	10	10	10	10	10	9
Mean 3 Brood Total	21.5	17.2	19.9	22.9	21.5	20.8
dness (mg/L) - Receiv	ing Water:	N/A	Effluent: 4	17/39/29	Rec	on Water
alinity (mg/L) – Receiv	-		Effluent: 1			on Water
orine (mg/L) – Effluen	1. \0.01	pri (initia	u/mai) - C($\frac{1}{2}$	100%	6: 8.0/8.0

Chlorine (mg/L) – Effluent: <0.01 pH (initial/final) – Control: 8.2/8.1 10 Total Ammonia as NH₃ (mg/L) - Effluent: 0.06/<0.03/<0.03

Were all Test Conditions in Conformance with Division Guidelines? YES \boxtimes NO \square If **NO**, list deviations from test specifications: N/A

Laboratory: SeaCrest Group

Comments:

Analyst's Name: Isabelle Sibley, Daniela Thornton, and Julie McKenney

Hally whent Date May 27,2022 Signature

SeaCrest Group

Louisvi	-				ia Chronic E				Form #: 1 ve: March 2
Permitte	e: <u>B</u> 8	He Mo	untain		_Lab #: 4222	136 · B	Site:	COLE	>
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Temp	24.5	24.3 2	5.2 24.7 24	17 24 8 24.1	24.4 24.1	24.1 24.1	7.4.1	-	ne
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DO	0	0	1 6.8 17	0 6.9 7.4	1.4 1.5	8	11		23
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	245	74.2 252	24.7 24.5	24.8 24.1	01		241		-
pH	8.0	8.3 8.0	7.5 7.6	8.0 1.8	77 7.8	7.7 7.7			-20.8
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Contraction of the local division of the loc	ABS	(ABS	ABS	435	ABS		1		and the second second
	2104	2101	2204			ABS			
H ₂ O	1	1	2	204	2203	2204			
nitials	15	15	DT	MU	m	3	10	_	- 6. 7 2.
		Eff #1	Eff	#2		-⊅T #3	5		
rdness		7	30		29		Reco	1	-
kalinity		2	18		18		64		-
hlorine		2.01		.01	10.		10.0	1	
nmonia		.06		.03	10. 10.			03	

Fotal Solution Volume: 15ml

Food used: YCT, Algae

Temp: °C pH: N/A

Alkalinity: mg/L Chlorine: mg/L Cond: µS/cm3 Ammonia: mg/L

Comments:

active + mobile

x:y:z = board #:row:column

1	2	3	4	5	6	7	8	9	10
AL	AZ	AM	AT	AID	CI	CY	Cq	C10	0

CETIS Ana	alytical Repo	ort			oort Date: t Code/ID				2 13:04 (p 1 of 1) D / 10-8811-9832
Ceriodaphnia	7-d Survival an	d Reproduction T	est					5	SeaCrest Group
Analysis ID:	01-4632-8290	Endpoint:	7d Survival Rate	CE	TIS Versie	on: C	CETISV	1.9.6	
Analyzed:	23 May-22 13:03	3 Analysis:	STP 2xK Contingency Tables	Sta	tus Level	: 1			
Batch ID:	08-5234-3236	Test Type:	Reproduction-Survival (7d)	Ana	alyst: L	ab Teo	ch		
Start Date:	16 May-22	Protocol:	EPA/821/R-02-013 (2002)	Dilu	ient: F	Recons	tituted	Water	
Ending Date:	22 May-22	Species:	Ceriodaphnia dubia	Brit	ne: M	lot App	licable		
Test Length:	6d 0h	Taxon:	Branchiopoda	Sou	irce: I	n-Hous	e Cultu	ire	Age:
Sample ID:	04-7423-6650	Code:	422236.B	Pro	ject: V	VET Q	uarterly	Compl	iance Test (2Q)
Sample Date:	16 May-22	Material:	POTW Effluent	Sou	irce: N	PDES	Permi	# (XX9	9999999)
Receipt Date:	16 May-22	CAS (PC):		Sta	tion: 0	01B			
Sample Age:	n/a	Client:	BMRI						
Data Transfor	m	Alt Hyp		NOEL	LOEL	т	DEL	TU	
Untransformed	1	C>T		100	>100	n/	а	1	

Fisher Exact/Bonferroni-Holm Test

Control	VS	Group		Test Stat	P-Type	P-Value	Decision	(a:5%)	
Dilution Wa	ter	13		1.0000	Exact	1.0000	Non-Sign	ificant Effect	
		26		1.0000	Exact	1.0000	Non-Sign	ificant Effect	
		52		1.0000	Exact	1.0000	Non-Sign	ificant Effect	
		76		1.0000	Exact	1.0000	Non-Sign	ificant Effect	
		100		0.5000	Exact	1.0000	Non-Sign	ificant Effect	
Data Sumn	nary								
Conc-%		Code	NR	R	NR + R	Prop NR	Prop R	%Effect	
0		D	10	0	10	1	0	0.0%	
13			10	0	10	1	0	0.0%	
26			10	0	10	1	0	0.0%	
52			10	0	10	1	0	0.0%	
			10	0	10	1	0	0.0%	
76									

Analyst: HW QA: TM

CETI	S Ana	lytical Rep	ort		0				Report Date: est Code/ID		100 A 17 10 10 10 10 10	13:04 (p 1 of 2 D / 10-8811-983
Ceriod	laphnia	7-d Survival ar	nd Repro	duction T	est						S	eaCrest Group
Analys		20-3417-1955		a set the set of set of	7d Survival Ra			С	ETIS Versio	n: CETI	Sv1.9.6	
Analyz	ed:	23 May-22 13:0	3	Analysis:	Linear Interpol	ation (ICPIN	1)	S	tatus Level:	1		
Batch		08-5234-3236			Reproduction-	Survival (7d)	A	nalyst: L	ab Tech		
Start D	Date:	16 May-22	- A	Protocol:	EPA/821/R-02	-013 (2002)		D	iluent: R	econstitute	ed Water	
Ending	g Date:	22 May-22		Species:	Ceriodaphnia d	dubia		B	rine: N	ot Applicat	ble	
Test Le	ength:	6d Oh	i i	faxon:	Branchiopoda			S	ource: Ir	-House Cu	ilture	Age:
Sample	e ID:	04-7423-6650		Code:	422236.B			Р	roject: V	/ET Quarte	erly Compli	iance Test (2Q)
Sample	e Date:	16 May-22	1	Material:	POTW Effluen	t		S	ource: N	PDES Perr	mit # (XX9	9999999)
Receip	t Date:	16 May-22		CAS (PC):				S	tation: 0	01B		
Sample	e Age:	n/a		Client:	BMRI							
Linear	Interpo	lation Options										
X Tran	sform	Y Transform	n s	Beed	Resamples	Exp 95%	CL Met	hod				
Linear		Linear	4	38116	1000	Yes	Two	-Point Inte	erpolation			
Point E	Estimate	es										
Level	%	95% LCL	95% U	CL TU	95% LCL	95% UCL						
LC5	88	80	n/a	1.136	n/a	1.25						
LC10	100	84	n/a	1	n/a	1.19						
LC15	>100	n/a	n/a	<1	n/a	n/a						
LC20	>100	n/a	n/a	<1	n/a	n/a						
LC25	>100	n/a	n/a	<1	n/a	n/a						
LC40	>100	n/a	n/a	<1	n/a	n/a						
LC50	>100	n/a	n/a	<1	n/a	n/a						
7d Sur	urvival Rate Summary					Calcu	lated Varia	ate(A/B)			Isc	otonic Variate
Conc-%	6	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	A/B	Mean	n %Effect
0		D	10	1.0000	0 1.0000	1.0000	0.0000	0.00%	0.0%	10/10	1	0.0%
13			10	1.0000	0 1.0000	1.0000	0.0000	0.00%	0.0%	10/10	1	0.0%
26			10	1.0000	0 1.0000	1.0000	0.0000	0.00%	0.0%	10/10	1	0.0%
52			10	1 0000	1 0000	1 0000	0.0000	0 000/	0.00/	10/10	4	0.00/

13	10	1.0000	1.0000	1.0000	0.0000	0.00%	0.0%	10/10	1
26	10	1.0000	1.0000	1.0000	0.0000	0.00%	0.0%	10/10	1
52	10	1.0000	1.0000	1.0000	0.0000	0.00%	0.0%	10/10	1
76	10	1.0000	1.0000	1.0000	0.0000	0.00%	0.0%	10/10	1
100	10	0.9000	0.0000	1.0000	0.3162	35.14%	10.0%	9/10	0.9

Analyst: HW QA: TM

0.0% 0.0% 10.0%

CETIS Ana	iytic	аі керс	ort								ort Dat t Code/			:04 (p 1 of 10-8811-98
Ceriodaphnia	7-d S	urvival an	d Repro	oduction Te	est						100		Seat	Crest Grou
		41-1561 1y-22 13:03		Endpoint: Analysis:	Reproc Param		ntrol vs	Trea	atments		'IS Vers us Lev		1.9.6	
Batch ID:	08-52	34-3236		Test Type:	Reprod	uction-	Survival	(7d)		Ana	lyst:	Lab Tech		
	16 Ma			Protocol:			-013 (20			Dilu	1.	Reconstituted \	Nater	
Ending Date:	22 Ma	y-22		Species:		aphnia d				Brin		Not Applicable		
Test Length:	6d Oh	1991	1.1	Taxon:	Branch	iopoda				Sou	rce:	In-House Cultu	re	Age:
Sample ID:	04-74	23-6650		Code:	422236	В	-			Proj	ect:	WET Quarterly	Compliand	e Test (2Q
Sample Date:	16 Ma	y-22	14	Material:	POTW	Effluen	t			Sou		NPDES Permit		
Receipt Date:	16 Ma	y-22		CAS (PC):						Stat		001B		
Sample Age:				Client:	BMRI					19.64	Arran -	10.000		
Data Transform	n		Alt Hy	yp						NOEL	LOE	L TOEL	TU	PMSD
Untransformed	n stantes etcel		C > T							100	>100	n/a	1	35.10%
Dunnett Multip	ole Co	mparison	Test	-										
Control v	s	Conc-%		Test S	Stat Cr	itical	MSD		P-Type	P-Value	Decis	sion(a:5%)		
Dilution Water		13		1.304	2.2	289	7.546	18		0.2876	Non-	Significant Effec	t	
		26		0.4854		289	7.546			0.6523		Significant Effec		
		52		-0.424		289	7.546			0.9296	Non-	Significant Effec	t	
		76		0		289	7,546		CDF	0.8333		Significant Effec		
	1.5	100		0.2123	3 2.2	289	7.546	18	CDF	0.7627	Non-	Significant Effec	t l	
ANOVA Table														
Source	-	Sum Squa	res	the second s	Square		DF		F Stat	P-Value	Decis	sion(a:5%)		
Between		189.933		37.986			5		0.6991	0.6264	Non-	Significant Effect	V.	
Error		2934		54.333	33		54	_						
Total		3123.93	_				59				_			
ANOVA Assum	ption	s Tests												
Attribute		lest 🛛					Test S	tat	Critical	P-Value	Decis	sion(a:1%)		
Variance							1.871		15.09	0.8667	1.	l Variances		
Distribution	istribution Shapiro-Wilk				st		0.9593		0.9459	0.0436	Norm	al Distribution		
Reproduction \$	Summ	ary												
Conc-%		Code	Count	2	95	% LCL	and the second second second	CL	Median	Min	Max	Std Err	CV%	%Effect
0	¢)	10	21.5	16		26.2		22	12	35	2.078	30.56%	0.00%
13			10	17.2		.97	23.43		17	5	28	2.752	50.60%	20.00%
26			10	19.9		26	25.54		21.5	10	30	2.492	39.60%	7.44%
52			10	22.0	10	GA	07 40		00 E	12	22	1 000	75 000/	C 540/

52

76

100

10

10

10

22.9

21.5

20.8

18.64

15.7

16.07

27.16

27.3

25.53

23.5

24

23

13

9

11

32

34

31

1.882

2.566

2.091

25.99%

37.74%

31.79%

-6.51%

0.00%

3.26%

Analyst: HV QA: TYP

CETIS	S Ana	lytical Rep	ort						port Date: st Code/ID:		2 13:04 (p 2 of 2 D / 10-8811-983
Ceriod	aphnia	7-d Survival an	d Reprodu	ction T	est					5	SeaCrest Group
Analys		05-6780-7425		point:	Reproduction				TIS Version:	CETISv1.9.6	
Analyz	ed:	23 May-22 13:0	3 Ana	lysis:	Linear Interpola	ation (ICPIN)	Sta	itus Level:	1	
Batch	ID:	08-5234-3236	Tes	t Type:	Reproduction-S	Survival (7d)	E C	Ana	alyst: Lab	Tech	
Start D	ate:	16 May-22	Pro	tocol:	EPA/821/R-02-	013 (2002)		Dil	uent: Reco	onstituted Water	
Ending	Date:	22 May-22	Spe	cies:	Ceriodaphnia d	lubia		Bri	ne: Not	Applicable	
Test Le	ength:	6d 0h	Tax	on:	Branchiopoda			So	urce: In-He	ouse Culture	Age:
Sample	e ID:	04-7423-6650	Cod	le:	422236.B			Pro	ject: WET	Quarterly Compl	iance Test (2Q)
Sample	Date:	16 May-22	Mat	erial:	POTW Effluent	6		Sou	urce: NPD	ES Permit # (XX9	9999999)
Receip	t Date:	16 May-22	CAS	(PC):				Sta	tion: 001E	3	
Sample	Age:	n/a	Clie	nt:	BMRI						
Linear	Interpo	lation Options	100				-				
X Trans	sform	Y Transform	n See	d	Resamples	Exp 95%	CL Met	hod			
Linear		Linear	1559	9167	1000	Yes	Two	-Point Inter	polation		
Point E	stimate	es									
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL					
IC5	>100	n/a	n/a	<1	n/a	n/a					
IC10	>100	n/a	n/a	<1	n/a	n/a					
IC15	>100	n/a	n/a	<1	n/a	n/a					
IC20	>100	n/a	n/a	<1	n/a	n/a					
IC25	>100	n/a	n/a	<1	n/a	n/a					
IC40	>100	n/a	n/a	<1	n/a	n/a					
IC50	>100	n/a	n/a	<1	n/a	n/a					
Reprod	luction	Summary				Cal	culated Va	ariate		Is	otonic Variate
Conc-%	6	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	Mean	n %Effect
0		D	10	21.5	12	35	6.57	30.56%	0.0%	21.5	0.0%
13			10	17.2	5	28	8.702	50.60%	20.0%	20.46	6 4.84%
26			10	19.9	10	30	7.88	39.60%	7.44%	20.46	6 4.84%
			10	22.9	13	32	5.953	25.99%	-6.51%	20.46	6 4.84%
52				Take of the		6.0	S. 5. 4	1.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
52 76			10	21.5	9	34	8.114	37.74%	0.0%	20.46	5 4.84%

Analyst: MW QA: TH

Appendix 3 – Data Sheets for the Fathead Minnow Test

Client: BMRI Site: 001B

WET TEST REPORT FORM – CHRONIC

Permittee:	Battle Moun	tain Resources, Inc	4
Permit No.:	CO-0045675		
Outfall:	001B – IWC	: 52%	
Test Type:	Routine 🖂	Accelerated 🗌	Screen 🗌
Test Species:	fathead minn	low	

Test Start Time	Test Start Date	Test End Time	Test End Date
1400	05-16-2022	1430	05-23-2022
Test Results	Lethality/TCP6C		Growth/TKP6C
S code: NOEL	100%		100%
	PASS	-	PASS
P code: LC ₂₅ /IC ₂₅	>100%		>100%
	PASS		PASS
T code:	>100%		>100%

Test Summary

Measurements	Control (0%)	13%	26%	52%	76%	100%
Exposed organisms	40	40	40	40	40	40
Survival for day 1	40	40	40	40	40	40
Survival for day 2	40	40	40	40	40	40
Survival for day 3	40	40	40	40	40	40
Survival for day 4	40	40	40	40	40	40
Survival for day 5	40	40	40	40	40	40
Survival for day 6	40	40	40	40	40	40
Survival for day 7	40	40	40	40	40	40
Mean Dry Wt. (mg)	0.252	0.291	0.303	0.283	0.276	0.274
ess (mg/L) – Receiv inity (mg/L) – Recei	-		Effluent: 4 Effluent: 1			Water: Water:

Alkalinity (mg/L) - Receiving Water: N/AEffluent: 17/18/18Recon Water:Chlorine (mg/L) - Effluent: <0.01</td>pH (initial/final) - Control: 8.3/7.8100%: 8.2/8.0Total Ammonia as NH3 (mg/L) - Effluent: 0.06/<0.03/<0.03</td>100%: 8.2/8.0

Were all Test Conditions in Conformance with Division Guidelines? YES \boxtimes NO \square If <u>NO</u>, list deviations from test specifications: N/A

Laboratory: SeaCrest Group

Comments:

Analyst's Name: Shanna Wepman, Haley West, and Catherine McDonald

Hally Weit Date May 27, 2022 Signature

		Ì	Ave wt		0 252					1 32.0		ſ	1.00	C.200			0782	222			92.0	2.1.2			1	0.4+4		Γ			1			Τ	T	Γ	Γ			T	T	1
Form #: 103a :: March 2022	016		Fish Wt mg	0.233	0.219	0.3;3	0.243	192.0			0.250	0.251	£87.0	0.373	0.303	0.253	5.287	0.311	0.279	0.270	0.270	0.303	0.259	0.274	0.250		0.263															
Form #: 103a Effective: March 2022			Tare F		15354	13367	10141.	13308	132.17	2	13380	11011	15465	.12557	.13223	1. julle	1-14403	1:13054	1.141083	1-12230	1.12518	1.13045	1-14451	012211	1-12999	1.12752	HE261.1					1-13217		mobile	ľ							
Ē	Dilution H ₂ O: MH2Z-		Fish & Tare	1.13680	1.15573	13680	15004	13599 1	13520	13907	13630	.16368	.15750	12930	1.13526	14514	14690	.13365	14962	12500	12788	13348	017410	112623	13249	13059	7947					13251		active timobile								
	Dilut		#	#1	-	#3	#4	#2	9#	#7	8#	6#	#10	#11	#12)	#13	-	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#	#	#	#	#		ts:	ł							
		::	7	10	0	0	10	€ 0]		1	0	10	() E	0	0	10 4	0		0	0	10	10	E 0]	10 H	10	10	10 3	F						Comments:								I
	2	Test Conditions:	9	10	0	10	0)	01	(0	0	10	(0	(0)	10	10	10	10	0	0	10	10	10	10	(0)	0)	0)	10					pretest		Co				J.				
	: 52	Conc	5	01	01	10	10	01	0	0	10	10	(0)	10	0	0	0	0	0)	0	0	10	10	10	0)	10	0)								1/1	J/Br	g/L					
	IWC:	Test	4	01	0	0	0	0	10	1		01	10	0	01	0	0	0	0	0	9	0	0	0	0	01	01	-							Alk: mo/l	Chlor: mg/L	NH ₃ : mg/L					I
		FHM	3	10	10	10	10	10	10	1	-	10	10	10	0	10	3	2	10	10	2	9	01	0	0)		10	_						Units:			81					I
leet	516		2		-	[0]	10	0	10	0	10	01	10	Ì	0			0	0	10	0	10	10	10	10	0	0)							5	S, L	IA	Cond: µS/cm ³					I
hsh	e: 0	Template:	-	10	01	01	01	0)	0		0	10	10	01	01	01	0	0	10	10	10	10	01	10	10	0	01							0	Temp: "C	pH: N/A	nd: µ	9				I
Minnow Chronic Benchsheet	Sample Date: 0516	Tem	0		9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10				T	-	ပိ ၂		_	-		4
nic E	Samp		2	453	1.42	7.8	Es S	5.8	1.42	7.8		5.8	1.45	79		5.7	1.12	7.9	100	5.7	7.4.1	8.0	「「「「「「「「」」「「「」」」	5.7	1.42	0.8	学校					SU		3	250 ml	en en	6.5 cm		ay	emia		l
Iror		15		6.8	24.4	1.8	~	7.0	5.42	1.2		2.2	5.43	1.5	~1	1.4	2:12	0.8	10	7.6	7.42	7.9	_	1.1	1.42	17.9	~							001	250	50.2	6.5	-	2x per day	<24hr artemia		I
v Ct	6.8	IH 0515	9	1.00			333	2.9			312		100	8.0	302				275	0.9		80	25	0.9	Z4.1	1.2.1	122					3	m	Der				ledule	S.	<24		
vou	230	1.515		3	N	5 3.0		0 6	1.42 1	28	-	2 6.	14	28	1	5		50	-	-	1	00-			-	18				-			-	Exposure Chamber			Water Depth (constant):	ng Sch	1	1		
Min	Lab #: 427	Species Info:	5	0	12	ö	50	1.	124	0	0-	1	1.42	òò	6	5	24.	0Ò	t	2.5	22	SÖ.	OO		24.	0	36					E	1	sure (Test Solution Surface Area:	it):	-eedir				
ead	ab #:	Specie		2.7	24.1	6.2	3	5.8	24.1	5.8	60	0,0	CH.	3.14	ř	0.0	1-72	20	N	1.9	24.1	20	77	1.07	1.42	5.2	4					3		Expo	emile	urface	Instar	-,		:pa		L
Fathead					ENZ	1.		5	4.3			5	24.3			_	5-m2	-		0	24.3	-		6.	2.MC	1.	~			1					Test Solution Volume	ion Su	oth (co		÷	Food Used:		
щ	8		4		10	2	227	10	1:2	8	315	16		80	306			8	187	0 0		00	56	0 0		8	231					3	r,		Test Solution V	Solut	er Dep		Fed:	ĉ	Т	+
	00/8	0		2.0	24	8.2	a	5.9	-m2	20		5.0	24.1	20		10.0	1-h2	3.0		0.0	1-h2	2.3		0.0	1.h2	8.4								ļ	Test	Test	Wate	2	>	3		
	Site:	1430				0	~	5.0	24.60	1:8	0	1.1	C.F	2	0	5	1.4	20		7.4	24.3	2.00	35	5.2	24.2	2.8	2					-		AR				9	>	3	>	32
		1	e	10.0	22:0	0 0	30	0.01		0	300	0.0	25.3 24.	8.0.8	286	0.0	25.0 24.4	00 1.0	201		H2 L:H2	1	22	0.0		1.8	223					S,	1	Rcv 3	1			5,	-	Ś	100	11/1
		523		9	21	30				8	_			80	_		2	80	-	9		30	2	3			_	-		-		_	_	_	-		4	-			F	-
		0 :pu		6.9	25.2	2.8	-	6.9	25.3	2.8	0	02	h'52	2.8	5	2.0	25.6	2.5	5	1.1	25.7	2.8		2:2	25.9	1.8	2					CW3		Rcv 2				4	>	F	>5	12
		Test End:			24.4		314	6.2	4.4	2.8	300	1000	100	2.5	682	2.0		2.8		2.8		2.8	239	2J	1.42	2.3	2					0	1	Rcv 1				e	>	S		80
		F	-						1							19		~		-		2									-			5	24	01	<0.03	~			T	
	tain	0	-	6.8		8.3	311	6.9	1.00	8.3	66	0.1	122	8.3	98.		S	00	-	2.1		00	15	7.4	25.3	8	27					MS.	- P		815	-			>	3-	+	30
Group	Mountain	0011		2.9	24.6	2.8	(1)	5.9	3.42	2.8	29	5.8	542	2.8	N	5.8	54.0	2.8	26	1in	24.6	2.8	2	5.7	24.C	2.8	227					1		Eff 3	101	to or	60.03	-	>	3	> 2	30
SeaCrest Group Louisville, CO		ف	1.17		~	-	320	7.0	6	8.3	302	2.7		8.3	0				~~				OHZ		5		122					30	-	Eff 2	10	10.02	40.03	0	1	1	20	30
Sea	Battle	rt: 05		Bo	d	_	Cond 3	D0 7	Temp Z	T	Cond 3	D0 7	du		p	DO	đ		σ	DO 7	đ		σ	D0 7	Temp Z		Cond Z	DO	emp	Hd	Cond				+ +	-		Бu		s		
	Client:	Test Start: 051	Conc Read	Ō	FI C		Ũ	Ō	12 Te		Ű	Ō	JC Te		Ö		1	-	0		TC. T		O	-	160 Te		O	0	Ĕ.	a	0	Initials	Water #	-	Alk	ы		Feeding	AM	Initials	Loition	Initials
	O	F	0	-	~		-	-	-	-	-	ù	5	-	-1	-	1)	_	-	1	25	- 1		-	-	1	-	-	-				2	- 4	10	Z	_			1	

the second second							les	t Code/ID:	422	236.fhm / 2	20-3104-7
Fathead Minn	ow 7-d Larva	Survival	and Growth	Test						SeaC	crest Gro
Analysis ID: Analyzed:	11-3452-1520 24 May-22 11			lean Dry Bior arametric-Co	•	atments		'IS Version tus Level:	n: CETISv1 1	.9.6	
Batch ID:	15-0512-5254		est Type: G	rowth-Surviv	al (7d)		Ana	lyst: La	b Tech		
Start Date:	16 May-22			PA/821/R-02	A State of the second second			3	econstituted V	Vater	
Ending Date:	23 May-22	5	pecies: P	imephales pr	omelas		Brin	e: No	ot Applicable		
Test Length:	7d Oh	Т	axon: A	ctinopterygii			Sou	rce: In-	House Cultur	e	Age:
Sample ID:	16-3450-2326		ode: 4	22236.B			Proj	ect: W	ET Quarterly	Complianc	e Test (2
Sample Date:	16 May-22	٨	Material: P	OTW Effluen	t		Sou	rce: NF	DES Permit	# (XX9999	9999)
Receipt Date:		c	AS (PC):				Stat		1B	A of Paris	
Sample Age:	n/a	c	lient: B	MRI							
Data Transfor	m	Alt Hy	p				NOEL	LOEL	TOEL	ти	PMSD
Untransformed		C > T	-			4	100	>100	n/a	1	22.79
Dunnett Multi	ple Comparis	on Test									
Control v	vs Conc-9	la	Test Sta	t Critical	MSD D	F P-Type	P-Value	Decisio	n(a:5%)		
Dilution Water	13		-1.645	2.407	0.057 6	CDF	0.9973	Non-Sig	nificant Effect		
	26		-2.138	2.407	0.057 6	CDF	0.9994		nificant Effect		
	52		-1.278	2.407	0.057 6	CDF	0.9921	Non-Sig	nificant Effect		
	76		-0.9847	2.407	0.057 6	CDF	0.9820		nificant Effect		
	100		-0.901	2.407	0.057 6	CDF	0.9775	Non-Significant Effect			
ANOVA Table											
Source	Sum So	uares	Mean So	luare	DF	F Stat	P-Value	Decision	n(a:5%)		
Between	0.00603		0.001206	5	5	1.059	0.4147	Non-Sigi	nificant Effect		-
Error	0.02049	45	0.001138	36	18						
Total	0.02652	44			23		_				
ANOVA Assun	nptions Tests										
Attribute	Test				Test Stat	Critical	P-Value	Decision	n(α:1%)		
Variance			Variance Tes		3.811	15.09	0.5770	Equal Va	ariances		
Distribution	Shapiro-	Wilk W No	rmality Test		0.9563	0.884	0.3682	Normal [Distribution		
Mean Dry Bior	mass-mg Sum	mary									
Conc-%	Code	Count	Mean	95% LCL	95% UCL		Min	Max	Std Err	CV%	%Effec
0	D	4	0.252	0.1854	0.3186	0.238	0.219	0.313	0.02092	16.60%	0.00%
13		4	0.2912	0.2433	0.3392	0.297	0.25	0.321	0.01507	10.35%	-15.57%
26		4	0.303	0.2212	0.3848	0.294	0.251	0.373	0.02571	16.97%	-20.24%
52		4	0.2825	0.2445	0.3205	0.283	0.253	0.311	0.01195	8.46%	-12.109
76		4	0.2755	0.2452	0.3058	0.27	0.259	0.303	0.009528	6.92%	-9.32%
100		4	0.2735	0.2347	0.3123	0.2685	0.25	0.307	0.0122	8.92%	-8.53%
Mean Dry Bion											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4						
0	D	0.233	0.219	0.313	0.243						
13		0.291	0.303	0.321	0.25						
26		0.251	0.285	0.373	0.303						
52		0.253	0.287	0.311	0.279						
76		0.27	0.27	0.303	0.259						
100		0.274	0.25	0.307	0.263						

003-715-114-2

JE III	J Alla	lytical Repo	JIL							oort Da t Code			and a left of the state	20 (p 2 of 1 20-3104-766
Fathea	d Minn	ow 7-d Larval S	urvival ar	d Growt	th Test									Crest Grou
Analys	is ID:	07-6623-8914	En	dpoint:	Mean Dry Bion	nass-mg			CE	TIS Ver	sion:	CETISv1.	9.6	
Analyz	ed:	24 May-22 11:2	0 An	alysis:	Linear Interpola	ation (ICPIN)		Sta	tus Lev	vel:	1		
Batch	ID:	15-0512-5254	Te	st Type:	Growth-Surviva	al (7d)			Ana	lyst:	Lab 1	lech .		
Start D	Date:	16 May-22	Pr	otocol:	EPA/821/R-02-	-013 (2002)				ent:	Reco	nstituted W	ater	
Ending	Date:	23 May-22	Sp	ecies:	Pimephales pro	omelas			Brin	ne:	Not A	pplicable		
Test L	ength:	7d Oh	Та	xon:	Actinopterygii				Sou	rce:	In-Ho	use Culture	•	Age:
Sampl	e ID:	16-3450-2326	Co	de:	422236.B				Pro	ject:	WET	Quarterly (Complianc	e Test (2Q
Sampl	e Date:	16 May-22	Ma	terial:	POTW Effluent	t.			Sou	rce:	NPD	ES Permit #	(XX9999	9999)
Receip	t Date:	16 May-22	CA	S (PC):					Stat	tion:	001B			
Sampl	e Age:	n/a	Cli	ent:	BMRI									
Linear	Interpo	lation Options	100											
X Tran	sform	Y Transform	se Se	ed	Resamples	Exp 95%	CL	Meth	nod					
Linear	1.00	Linear	47	1292	1000	Yes		Two-	Point Inter	polation				
Point E	Estimate	es												
Level	%	95% LCL	95% UCI	TU	95% LCL	95% UCL								
C5	>100	n/a	n/a	<1	n/a	n/a								
C10	>100	n/a	n/a	<1	n/a	n/a								
C15	>100	n/a	n/a	<1	n/a	n/a								
C20	>100	n/a	n/a	<1	n/a	n/a								
C25	>100	n/a	n/a	<1	n/a	n/a								
C40 C50	>100 >100	n/a n/a	n/a n/a	<1 <1	n/a n/a	n/a n/a								
			Y" 71		II/a								17.73	
		nass-mg Summ		12.57	1410			ed Va						nic Variate
Conc-%	6	Code D	Count	Mean	Min	Max	- C 2 5	Dev	CV%	%Eff			Mean	%Effect
13		D	4	0.252	0.219 2 0.25	0.313 0.321	0.04		16.60% 10.35%	0.0%			0.2822	0.0% 0.0%
26			4	0.291	0.25	0.321	0.05		16.97%	-15.5			0.2822	0.0%
52			4	0.282		0.311	0.02	0.2.2	8.46%	-12.1			0.2822	0.0%
76			4	0.275		0.303	0.01		6.92%	-9.32			0.2755	2,37%
100			4	0.273		0.307	0.02		8.92%	-8.53			0.2735	3.08%
Mean D	ory Bion	nass-mg Detail			- 2.02			-						
Conc-%	6	Code	Rep 1	Rep 2	Rep 3	Rep 4								
)		D	0.233	0.219	0.313	0.243								
13			0.291	0.303	0.321	0.25								
26			0.251	0.285	0.373	0.303								
52			0.253	0.287	0.311	0.279								
6			0.27	0.27	0.303	0.259								
00			0.274	0.25	0.307	0.263								

Analyst: HW QA: The

Appendix 4 – QA/QC and Reference Toxicant Test Chart

Quality Assurance Check List - Chronic Whole Effluent Toxicity Test

Client:	Battle Mountain Resources, Inc.
SeaCrest Sample No:	422236.B
Species Tested:	Ceriodaphnia dubia and fathead minnow

Sample Dates	Start Date of Test (Ceriodaphnia dubia)	Start Date of Test (fathead minnow)
05-16-2022		
05-18-2022		
05-20-2022	05-16-2022	05-16-2022

Sample received in lab properly preserved (0-6°C)?	N*
Sample received at laboratory within 36 hours of collection?	Y
Sample delivered on ice or equivalent?	Y
Test initiated within 36-hours of collection?	Y
Test protocol conforms to CDPHE guidelines (Ceriodaphnia dubia)?	Y
Test protocol conforms to CDPHE guidelines (fathead minnow)?	Y
Average test temp. ±1°C (Ceriodaphnia dubia)?	Y
Average test temp. ±1°C (fathead minnow)?	Y
DO level ≥4.0mg/L; no super-saturation (Ceriodaphnia dubia)?	Y
DO level ≥4.0mg/L; no super-saturation (fathead minnow)?	Y
Survival in control \geq 80% (<i>Ceriodaphnia dubia</i>)?	Y
Survival in control ≥80% (fathead minnow)?	Y
Ceriodaphnia dubia neonates <24-hours old?	Y
Fathead minnow larvae <24-hours old?	Y
Appropriate reference toxicity test conducted?	Y
Reference toxicity test results within the confidence limits for the lab?	Y

* The samples were hand delivered at 11.4°C, 13.3°C, and 13.0°C on the same day as sampling.

Author Kaly Mut Position: Laboratory Supervisor	Date May 21, 2022
Position: Laboratory Supervisor	1 - 1
Quality Control -14/	Date 27 My 2022
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METHOD QC

Method	Analyte	Date	LCS (rec)	%REC	%RPD	QC LIMITS
2320 B	Alkalinity - Total	4/8/2022	100.80%	99.20%	-0 50%	+ 5 00%
2320 B	Alkalinity - Total	4/14/2022	99.20%	99.88%	0.43%	4 E 00%
2320 B	Alkalinity - Total	4/21/2022	100.80%	100.61%	-01 70%	4 F 00%
2320 B	Alkalinity - Total	4/28/2022	100.00%	100 50%	-1 13%	H 3.00%
4500 NH3 D		4/8/2022	%02.66	104 95%	0 50%	E 3.00%
4500 NH3 D) Ammonia	4/14/2022	101.80%	%60.76	-1 32%	± 10.00%
4500 NH3 D	Ammonia	4/20/2022	96.60%	103.00%	2 69%	± 10.00%
4500 NH3 D	Ammonia	4/27/2022	104.60%	102 23%	3 77%	10.00 %
4500 CI D	Chlorine	4/21/2022	96.97%	90.63%	0 00%	
2340 B	Hardness - Total	4/7/2022	96.49%	100.40%	2.93%	- 0.00 - E E 00%
2340 B	Hardness - Total	4/14/2022	96.50%	100.00%	0.82%	2000 F
2340 B	Hardness - Total	4/21/2022	104.00%	101.00%	-3.35%	+ 5 00%
2340 B	Hardness - Total	4/28/2022	98.25%	101.39%	1.77%	± 5.00%
1.000			LCS (rec)	%REC M1	%REC M2	OC Limits
4500 O	DO - Winkler	4/6/2022	N/A	100.00%	97.06%	+ 5.00%
4500 0	DO - Winkler	4/14/2022	N/A	96.92%	96 69%	+ 5 00%
4500 O	DO - Winkler	4/20/2022	N/A	95.65%	97.06%	+ 5 00%
4500 O	DO - Winkler	4/26/2022	N/A	98.51%	97.06%	± 5.00%
			Blank	%REC MR S	%RPD	OC I imits
2540 D	Suspended Solids (TTL)	4/13/2022	100.00%	96.64%	0.00%	+ 15%
2540 C	Dissolved Solids (TTL)	4/13/2022	100.00%	100.80%	0.00%	± 15%
Signature:	Halley Wei	t			Signature:	-Junt-
Date:	May 2, 2022				Date:	2 Mrs. 2022

SeaCrest Group 500 S Arthur Ave. Suite 450 Louisville, CO 80027 (303) 661.9324 FAX (303) 661.9325





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2.7885	2.8053	2.8032	2.7956	2.7747	2.7747	2.7769	2.7664	2.7966	2.8252	2.7425	2.7816	2.8150	2 7797	2.7874	2.7982	2.7982	2.7374	2.7626	2.7453
1.3544	1.3517	1.3962	1.3979	1.3939	1.3939	1.4948	1.4945	1.5357	1.4386	1.4777	1.5041	1.5342	1.5338	1.5310	1.5330	1.5330	1.6590	1.6774	1.7257
2.0715	2.0785	2.0997	2.0968	2.0843	2.0843	2.1359	2.1304	2.1661	2.1319	2.1101	2.1429	2.1746	2.1568	2.1592	2.1656	2.1656	2.1982	2.2200	2.2355
2.3330	2.3890	2.1250	2.3330	2.0710	2.1250	2.5000	2.2190	2.5000	1.5000	2.3330	2.5000	2.5000	2.1250	2.5000	2.3330	1.8330	2.1250	2.4580	2.1250
10/02/20	11/06/20	12/04/20	01/04/21	02/15/21	03/04/21	04/01/21	05/03/21	06/14/21	07/01/21	08/11/21	09/06/21	10/03/21	11/04/21	12/07/21	01/03/22	02/23/22	03/22/22	04/18/22	5/16/2022
	2.3330 2.0715 1.3544	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.3962	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.3962 2.3330 2.0968 1.3979	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.3962 2.3330 2.0968 1.3979 2.0710 2.0843 1.3939	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.3962 2.3330 2.0968 1.3979 2.0710 2.0843 1.3939 2.1250 2.0843 1.3939	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.3962 2.3330 2.0968 1.3979 2.3330 2.0968 1.3979 2.3330 2.0968 1.3979 2.3330 2.0843 1.3939 2.1250 2.0843 1.3939 2.5000 2.1359 1.4948	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.3890 2.0785 1.3517 2.1250 2.0968 1.3979 2.3330 2.0968 1.3979 2.3330 2.0968 1.3979 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.1304 1.4946	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.3890 2.0785 1.3517 2.1250 2.0997 1.3962 2.3330 2.0968 1.3979 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.1359 1.3939 2.1250 2.1359 1.4948 2.2190 2.1364 1.4945 2.5000 2.1661 1.5357	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.362 2.1250 2.0968 1.3979 2.0710 2.0968 1.3979 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.4948 2.1250 2.1359 1.4945 2.2190 2.1304 1.4945 2.5000 2.1304 1.4945 2.5000 2.1319 1.4386	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.362 2.1250 2.0968 1.3979 2.0710 2.0968 1.3979 2.0710 2.0968 1.3979 2.0710 2.0968 1.3979 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.4948 2.1250 2.1359 1.4948 2.2190 2.1359 1.4945 2.25000 2.1304 1.4945 2.3330 2.1304 1.4945 2.3330 2.1101 1.4777	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.362 2.1250 2.0968 1.3979 2.0710 2.0968 1.3979 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.4948 2.1250 2.1359 1.4948 2.1250 2.1359 1.4948 2.1250 2.1359 1.4948 2.5000 2.1319 1.4945 2.5000 2.1319 1.4386 2.5000 2.1101 1.4777 2.5000 2.1429 1.4777	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.362 2.1250 2.0968 1.3979 2.1250 2.0943 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.4948 2.1250 2.1359 1.4945 2.5000 2.1319 1.4945 2.5000 2.1319 1.4945 2.5000 2.1319 1.4346 2.5000 2.1319 1.4345 2.5000 2.1319 1.4345 2.5000 2.1319 1.4345 2.5000 2.1319 1.4346 2.5000 2.1429 1.5342 2.5000 2.1429 1.5041	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.3962 2.1250 2.0968 1.3979 2.1250 2.0943 1.3939 2.0710 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1303 2.1304 1.4948 2.5000 2.1304 1.4945 2.2190 2.1319 1.4945 2.2100 2.1319 1.4945 2.5000 2.1319 1.4945 2.5000 2.1319 1.4386 2.1010 2.1429 1.4345 2.1250 2.1429 1.5333 2.1250 2.1746 1.5338	2.3330 2.0715 1.3544 2.1250 2.0785 1.3517 2.1250 2.0997 1.3962 2.1250 2.0968 1.3979 2.1250 2.0943 1.3939 2.0710 2.0943 1.3939 2.0710 2.0843 1.3939 2.1250 2.0843 1.3939 2.1359 1.4948 1.3939 2.1359 1.4948 1.4945 2.2190 2.1319 1.4945 2.2000 2.1319 1.4945 2.23330 2.1319 1.4945 2.23330 2.1319 1.4945 2.5000 2.1319 1.4386 2.5000 2.1429 1.4386 2.1250 2.1429 1.5357 2.1250 2.1429 1.5310 2.1568 1.5338 1.5338 2.1500 2.1562 1.5310	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.3890 2.0785 1.3562 2.1250 2.0968 1.3979 2.1250 2.0968 1.3979 2.1250 2.0968 1.3979 2.1250 2.0968 1.3979 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.1359 1.4948 2.1500 2.1319 1.4945 2.5000 2.1319 1.4945 2.5000 2.1319 1.4386 2.5000 2.1319 1.4777 2.5000 2.1319 1.4336 2.5000 2.1429 1.5310 2.5000 2.1429 1.5332 2.1250 2.1568 1.5330 2.1563 1.5330 1.5330 2.1565 1.5330 1.5330	2.3330 2.0715 1.3544 2.3890 2.0785 1.3962 2.3890 2.0785 1.3962 2.1250 2.0968 1.3979 2.3330 2.0710 2.0968 1.3979 2.3330 2.0710 2.0968 1.3979 2.1250 2.0843 1.3939 1.3939 2.0710 2.0843 1.3939 1.3939 2.1250 2.0843 1.4948 1.4945 2.12000 2.1304 1.4946 1.4945 2.5000 2.1319 1.4386 1.4386 2.5000 2.1319 1.4777 1.6317 2.5000 2.1429 1.4777 1.6041 2.5000 2.1429 1.6141 1.6330 2.5000 2.1748 1.6330 1.6330 2.1250 2.1656 1.6533 1.6330 2.1656 1.656 1.65330 1.6330 1.8330 2.1656 1.65330 1.6330	2.3330 2.0715 1.3544 2.1250 2.0997 1.3517 2.1250 2.0968 1.3962 2.1250 2.0968 1.3979 2.1250 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.1359 1.4948 2.5000 2.1359 1.4948 2.5000 2.1319 1.4945 2.5000 2.1319 1.4945 2.5000 2.1319 1.4386 2.5000 2.1319 1.4386 2.5000 2.1746 1.5357 2.5000 2.1746 1.5357 2.5000 2.1746 1.5333 2.3330 2.1562 1.5333 2.1250 2.1562 1.5333 2.1250 2.1562 1.5333 2.1250 2.1656 1.5333 2.1250 2.1656 1.5333 2.1250 2.1982 1.5330	2.3330 2.0715 1.3544 2.3890 2.0785 1.3517 2.1250 2.0997 1.3517 2.1250 2.0968 1.3952 2.0710 2.0943 1.3959 2.0710 2.0843 1.3939 2.0710 2.0843 1.3939 2.1250 2.0843 1.3939 2.1250 2.1359 1.4948 2.1304 1.4946 1.4946 2.5000 2.1319 1.4946 2.5000 2.1319 1.4386 2.5000 2.1101 1.5531 2.5000 2.1429 1.5641 2.5000 2.1568 1.5333 2.1560 2.1568 1.5333 2.1560 2.1568 1.5330 2.1560 2.1568 1.5330 2.1666 1.5330 1.5330 2.1560 2.1562 1.5330 2.1656 1.5330 1.5330 2.1656 1.5330 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1.3866	1.385300596	1.3701	1.3470	1.3625	1.3605	1.3461	1.3521	1.3499	1.3599	1.3375	1.3162	1.3367	1.3311	1.3076	1.3284	1.3354	1.3154	1.3174	1.3025
0.7993	0.804859404	0.7730	0.7653	0.7646	0.7475	0.7439	0.7472	0.7475	0.7508	0.7516	0.7574	0.7807	0.7830	0.7931	0.8016	0.8084	0.8489	0.8376	0.8293
1.0930	1.09508	1.0715	1.0562	1.0635	1.0540	1.0450	1.0496	1.0487	1.0553	1.0445	1.0368	1.0587	1,0570	1.0503	1.0650	1.0719	1.0821	1.0775	1.0659
1.0270	1.002	0.8229	0.9453	1.2100	0.9062	1.0030	1.1140	1.1340	1.1550	1.0180	1.0820	1.2630	1.1930	1.1450	1.2300	1.1390	1.0040	0.9527	0.9716
10/02/20	11/6/2020	12/04/20	01/04/21	02/15/21	03/04/21	04/01/21	05/03/21	06/14/21	07/01/21	08/11/21	09/06/21	10/03/21	11/04/21	12/07/21	01/03/22	02/23/22	03/22/22	04/18/22	05/16/22
	1.0270 1.0930 0.7993	1.0270 1.0930 0.7993 1.002 1.09508 0.804859404 1	1.0270 1.0930 0.7993 1.002 1.09508 0.804859404 1.3 0.8229 1.0715 0.7730 1.3	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 0.8229 1.0715 0.7730 1 0.9453 1.0562 0.7653 1	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 0.8229 1.0715 0.7330 1 0.9453 1.0562 0.7653 0.7653 1.2100 1.0635 0.7646 1	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 0.8229 1.0715 0.804859404 1 0.8229 1.0715 0.7730 0.7730 0.9453 1.0562 0.7653 0.7653 1.2100 1.0635 0.7653 0.7656 0.9062 1.0636 0.7475 0.7475	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 0.8229 1.0715 0.804859404 1 0.8229 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 1.2100 1.0635 0.7730 0.7653 1.2100 1.0635 0.7475 0.7475 1.0030 1.0450 0.7439	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 0.8229 1.0715 0.804859404 1 0.8229 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0562 0.7730 0.7730 1.2100 1.0635 0.7653 0.7653 1.2100 1.0635 0.7475 0.7475 1.0030 1.0450 0.7475 0.7472 1.1140 1.0496 0.7472	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 0.8229 1.0715 0.804859404 1 0.8229 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0745 0.7730 1.2100 1.0635 0.7653 1.2100 1.0635 0.7475 1.0030 1.0450 0.7475 1.1140 1.0496 0.7475 1.1340 1.0487 0.7475	1.0270 1.0930 0.7993 1.002 1.09508 0.7993 1.002 1.09508 0.804859404 0.8229 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0540 0.7730 1.2100 1.0635 0.7653 0.9062 1.0635 0.7475 1.1140 1.0450 0.7475 1.11340 1.0487 0.7475 1.1550 1.0653 0.7776	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 1.002 1.0715 0.7730 0.7730 0.8229 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0635 0.7730 0.7475 1.2100 1.0635 0.7475 0.7475 1.1140 1.0496 0.7475 0.7475 1.1340 1.0487 0.7475 0.7475 1.1550 1.0553 0.7508 0.7516	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 1.002 1.0715 0.7730 0.7730 0.8229 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0635 0.7653 0.7653 0.9062 1.0635 0.7475 0.7475 1.1140 1.0487 0.7475 0.7475 1.11340 1.0487 0.7475 0.7475 1.1550 1.0453 0.7508 0.7516 1.0180 1.0453 0.7574 0.7574	1.0270 1.0930 0.7993 1 1.002 1.09508 0.804859404 1 1.002 1.0715 0.7730 0.7730 0.8229 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0715 0.7730 0.7730 0.9453 1.0635 0.7730 0.7730 1.2100 1.0635 0.7653 0.7653 0.9062 1.0635 0.7475 0.7475 1.1140 1.0487 0.7475 0.7475 1.11340 1.0487 0.7475 0.7475 1.11550 1.0487 0.77508 0.7776 1.0180 1.0487 0.7776 0.7776 1.0180 1.0368 0.7516 0.7574 1.2630 1.0587 0.7704 0.7574	1.0270 1.0930 0.7993 1 1.002 1.002 1.09508 0.7730 1.002 1.0115 0.7730 0.8229 1.0715 0.7730 0.8253 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0715 0.7730 0.9453 1.0635 0.7646 0.9062 1.0635 0.7646 0.9062 1.0635 0.7475 1.1140 1.0487 0.7475 1.11340 1.0487 0.7475 1.11340 1.0487 0.7773 1.11340 1.0487 0.7775 1.11340 1.0487 0.7775 1.11340 1.0487 0.7775 1.11340 1.0487 0.7776 1.1082 1.0487 0.7776 1.10820 1.0587 0.7776 1.10820 1.0587 0.77807 1.1930 1.0570 0.7807	1.0270 1.0270 1.0930 0.7993 1.022 1.002 1.002 1.09508 0.804859404 1 1.002 1.0715 0.7730 0.7730 0.8229 1.0715 0.7730 0.7730 0.9453 1.0562 0.7730 0.7730 0.9062 1.0562 0.7646 0.7475 1.2100 1.0635 0.7445 0.7475 1.0030 1.0446 0.7475 0.7475 1.1140 1.0445 0.7475 0.7475 1.11340 1.0445 0.7475 0.7475 1.1150 1.0445 0.7475 0.77608 1.1150 1.0445 0.77616 0.77674 1.12630 1.0570 0.7616 0.7807 1.1450 1.0570 0.7807 0.7830 1.1450 1.0570 0.7931	1.0270 1.0930 0.7993 1.002 1.09508 0.7993 1.002 1.0750 0.7730 0.8229 1.0715 0.7730 0.8229 1.07562 0.7730 0.9453 1.0662 0.7730 0.9453 1.0662 0.7730 0.9453 1.0662 0.7475 1.1140 1.0450 0.7475 1.1140 1.0465 0.7475 1.1140 1.0487 0.7475 1.1140 1.0487 0.7475 1.1140 1.0487 0.7475 1.1140 1.0487 0.77516 1.1140 1.0487 0.77516 1.1150 1.0653 0.7516 1.1550 1.0650 0.7830 1.1450 1.0650 0.7830 1.1450 1.0650 0.7830	1.0270 1.0230 0.7993 1.0270 1.002 1.002 1.09508 0.7730 0.7730 0.8229 1.0715 0.7730 0.7730 0.9453 0.9453 1.0752 0.7730 0.9453 1.0752 0.7730 0.7730 0.9062 1.0662 0.7475 0.7475 1.1140 1.0450 0.7475 0.7475 1.1140 1.0487 0.7475 0.7475 1.1140 1.0487 0.7475 0.7475 1.1150 1.0487 0.7475 0.7736 1.1150 1.0487 0.7736 0.7736 1.1150 1.0487 0.7736 0.7776 1.1150 1.0487 0.7736 0.7776 1.1150 1.0487 0.7736 0.7776 1.1150 1.0563 0.7733 0.7736 1.1150 1.0563 0.7733 0.7731 1.1230 1.0570 0.7931 0.7931 1.1330 1.0719 0.8016 0.8016	1.0270 1.0930 0.7193 1.002 1.09508 0.7150 1.002 1.0715 0.804859404 1.2100 1.0715 0.7730 0.8253 0.7653 0.7730 1.2100 1.0652 0.7653 1.2100 1.0652 0.7653 1.2100 1.0652 0.7475 1.1140 1.0450 0.7475 1.1340 1.0487 0.7475 1.1340 1.0487 0.7475 1.1340 1.0487 0.7475 1.1340 1.0487 0.7475 1.1340 1.0487 0.7475 1.1350 1.0487 0.7439 1.1450 1.0587 0.7616 1.1450 1.0570 0.7633 1.1450 1.0560 0.7831 1.1450 1.0560 0.7833 1.1450 0.7833 0.7833 1.1450 0.7833 0.7833 1.1450 0.7833 0.7833 1.040	1.0270 1.0270 1.0220 0.7993 1.022 1.002 1.0715 0.7930 0.7730 1.002 1.0715 0.7730 0.7730 0.804559404 1.07730 0.7730 0.8052 0.7653 0.7730 0.9062 1.0640 0.7475 0.12450 0.7475 0.7475 1.1140 1.0487 0.7475 1.1140 1.0487 0.7475 1.1140 1.0487 0.7475 1.1140 1.0445 0.7475 1.1140 1.0445 0.7730 1.1140 1.0487 0.7764 1.1140 1.0487 0.7776 1.1140 1.0487 0.7763 1.1140 1.0487 0.7763 1.1140 1.0487 0.7763 1.1140 1.0653 0.7763 1.1140 1.0653 0.7763 1.1140 1.0650 0.7807 1.1140 1.0650 0.7807 1.1140 1.0650 0.7807 1.11450 1.0650 0.7831 1.11450 1.0719 0.8016 1.0040 1.0719 0.8016 1.0040 1.0719 0.8016 0.9527 0.9527 0.0753

FHM SURVIVAL LC25 NaCI REFTOX



+2 SD	5.8617	5.9092	5.6597	5.4949	5.6685	5.6702	5.8429	6.1596	6.3925	6.4155	6.5101	6.7224	6.7226	6.7904	6.8135	6.8799	7.0713	7.0900	7.1688	7.2464
-2 SD	1.9931	2.0428	2.2040	2.2576	2.2017	2.1591	2.1464	2.0920	1.9849	1.7621	1.7345	1.6465	1.6644	1.7899	1.9442	1.9620	2.0849	1.9736	2.2009	2.4258
Mean	3.9274	3.9760	3.9318	3.8762	3.9351	3.9146	3.9947	4.1258	4.1887	4.0888	4.1223	4.1844	4.1935	4.2901	4.3788	4.4210	4.5781	4.5318	4.6848	4.8361
IC25	2.8830	4.4760	5.5000	4.0770	5.3330	3.2500	5.3330	6.1583	6.2160	2.3750	5.5000	6.2580	3.7000	5.1250	4.8750	5.2000	6.3570	3.2000	6.0000	6.1400
Date	08/20/20	09/04/20	10/21/20	11/12/20	12/09/20	01/04/21	02/03/21	03/25/21	04/02/21	05/20/21	06/28/21	07/24/21	08/19/21	09/02/21	10/08/21	11/22/21	12/20/21	01/27/22	02/08/22	03/21/22

FHM GROWTH IC25 NaCI REFTOX



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7.3316	7 3367	7 4156	7 4194	7 5481	7.5231	7.5375	7.5919	7 7295	7 8162	7 9113	7 9582	7 9619	8 0895	8 0905	8 0771	8 0788	8 0692	7.9266	8 0729
2.4157	2.4133	2.3802	2.4172	2.4402	2.3784	2.6088	2.5891	2.5395	2.2272	2.2267	2.5384	2.8247	2.8982	2.9074	3 0315	3.0309	3.2082	3.7120	3.8121
4.8737	4.8750	4.8979	4.9183	4.9941	4.9508	5.0732	5.0905	5.1345	5.0217	5.0690	5.2483	5.3933	5.4939	5.4990	5.5543	5.5549	5.6387	5.8193	5.9425
6.7500	6.5000	6.5770	4.6370	6.1720	4.2580	5.7680	6.5280	6.8650	2.7590	6.2200	6.5530	6.2310	6.6650	5.0481	5.3520	6.7310	5.8200	6.6580	7.2690
08/20/20	09/04/20	10/21/20	11/12/20	12/09/20	01/04/21	02/03/21	03/25/21	04/02/21	05/20/21	06/28/21	07/24/21	08/19/21	09/02/21	10/08/21	11/22/21	12/20/21	01/27/22	02/08/22	03/21/22
	6.7500 4.8737 2.4157 2.4157	6.7500 4.8737 2.4157 6.5000 4.8750 2.4133	6.7500 4.8737 2.4157 6.5000 4.8750 2.4133 6.5770 4.8979 2.3802	6.7500 4.8737 2.4157 6.5000 4.8750 2.4133 6.5700 4.8979 2.3802 4.6370 4.9183 2.4172	6.7500 4.8737 2.4157 6.5000 4.8750 2.4133 6.5770 4.8979 2.3802 4.6370 4.9183 2.4172 6.1720 4.9941 2.4402	6.7500 4.8737 2.4157 6.5000 4.8750 2.4133 6.5770 4.8979 2.4133 6.5770 4.9183 2.3802 4.6370 4.9183 2.4172 6.1720 4.9941 2.4402 4.2580 4.9508 2.3784	6.7500 4.8737 2.4157 6.5000 4.8750 2.4133 6.5770 4.8979 2.4133 6.5770 4.8979 2.3802 4.6370 4.9183 2.4172 6.1720 4.9941 2.4402 4.2580 4.9508 2.3784 5.7680 5.0732 2.6088	6.7500 4.8737 2.4157 6.5000 4.8750 2.4153 6.5770 4.8750 2.4133 6.5770 4.8979 2.3802 6.5770 4.9183 2.4172 6.1720 4.9941 2.4402 6.1720 4.9508 2.3784 6.1720 5.0732 2.6088 6.5280 5.0905 2.5891	6.7500 4.8737 2.4157 6.5000 4.8750 2.4157 6.5770 4.8750 2.4133 6.5770 4.8979 2.3802 6.5770 4.9183 2.4172 6.1720 4.9941 2.4402 6.1720 4.9941 2.4402 6.1720 4.9508 2.3784 6.1720 5.0732 2.6088 6.5280 5.0732 2.5691 6.8650 5.1345 2.5395	6.7500 4.8737 2.4157 6.5000 4.8750 2.4153 6.5770 4.8750 2.4133 6.5770 4.9183 2.4172 6.1720 4.9941 2.4172 6.1720 4.9941 2.4402 6.1720 4.9508 2.4402 6.1720 4.9508 2.3784 6.1720 5.0732 2.6088 6.5280 5.0732 2.5608 6.5280 5.0732 2.5891 6.8650 5.1345 2.5395 2.7590 5.0217 2.2272	6.7500 4.8737 2.4157 6.5700 4.8750 2.4157 6.5770 4.8750 2.4172 6.5770 4.99183 2.4172 6.1720 4.9941 2.4172 6.1720 4.9941 2.4402 6.1720 4.9508 2.4402 6.1720 4.9508 2.3784 6.1720 5.0732 2.6088 6.5280 5.0732 2.5891 6.5280 5.0905 2.5891 6.8650 5.1345 2.5891 6.2200 5.0217 2.2589 6.2200 5.0690 5.0217	6.7500 4.8737 2.4157 6.5700 4.8750 2.4157 6.5770 4.8979 2.4172 6.1720 4.9941 2.4402 6.1720 4.9941 2.4402 6.1720 4.9941 2.4402 6.1720 4.9508 2.4402 6.1720 4.9508 2.3784 6.1720 5.0732 2.5891 6.5280 5.0732 2.5891 6.5280 5.0305 2.5395 6.2200 5.0305 2.25395 6.2200 5.0483 2.25395 6.5530 5.0217 2.25395 6.5530 5.0483 2.2584	6.7500 4.8750 2.4157 6.5770 4.8750 2.4157 6.5770 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Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

October 26, 2022

Colorado Department of Public Health and Environment Water Quality Control Division Attn: WQDC-B2 – DMR Receipt 4300 Cherry Creek Drive Denver, CO 80246-1530

Re: Battle Mountain Resources, Inc. San Luis Project - San Luis, Colorado Third Quarter 2022 – DMR's, BMP, Influent Summary and WET Testing Reports CDPHE CDPS Permit No. CO0045675

Dear Sir or Madame:

Please find the enclosed Battle Mountain Resources, Inc. "San Luis Project" (Permit No. CO0045675) Colorado Department of Public Health and Environment-Colorado Discharge Permit System (CDPS) Best Management Practices (BMP) report for permitted outfall 002 for the third quarter 2022. The quarterly BMP report provides the required data associated with groundwater well elevations, the quarterly potentiometric surface map and groundwater well chemistry.

In addition, the third quarter 2022 Discharge Monitoring Reports (DMRs) were submitted for each of the permitted water treatment plant discharges in the NetDMR System and the WET Testing Reports were attached to the appropriate DMR submittal in NetDMR. These permitted discharges consist of water treatment plant Discharge Numbers 001-A and 001-B. During the quarter, the maximum 30-day average flow was 0.31 million gallons of water discharged per day, therefore the applicable permit criteria for the reporting period is associated with discharge number 001-B. A summary report of the annual influent sampling required under the permit is also included for your review.

Should any questions arise or if I can be of any assistance providing clarification, please call me at (719) 379-0538.

Sincerely,

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File Devon Horntvedt, Newmont USA Limited Lawrence Fiske, Newmont USA Limited Tim Runnells, Engineering Analytics Alan Fosdick, Engineering Analytics

Battle Mountain Resources, Inc. San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

October 26, 2022

Colorado Department of Public Health and Environment Water Quality Control Division Attn: WQDC-B2 – DMR Receipt 4300 Cherry Creek Drive Denver, CO 80246-1530

Re: Battle Mountain Resources, Inc. San Luis Project Third Quarter 2022 BMP Report CDPHE CDPS Permit No. CO0045675

Dear Sir or Madame:

In accordance with and compliance of the permit limitations and permit terms and conditions contained in Part I, Section 5 <u>Discharge Point 002</u>: (Permit Limitations, Best Management Practices, and Schedule of Compliance of the *State of Colorado Authorization to Discharge Under the Colorado Discharge Permit System*, Battle Mountain Resources, Inc. submits the following *Quarterly Best Management Practices Report*.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 62.4, and the Colorado Discharge Permit System Regulations, Sections 61.8(2), 61.8(3)(n), and 61.8(3)(r), 5 C.C.R. 1002-61, the permittee shall continue to implement the following limitations, compliance schedules, and Best Management Practices (BMPs).

The attainment of applicable water quality standards will be implemented and evaluated through the application of the following limitations, compliance schedules, and BMPs that are designed to monitor and control the groundwater quality and quantity discharging from the West Pit to the Rito Seco alluvial aquifer.

Specifically, the limitations, compliance schedules, and BMPs are those activities that address contaminated groundwater that may flow into the Rito Seco. This includes: (1) the potential flow of the affected groundwater from the West Pit that, in the past, manifested itself in the formation of the surface seeps along the arroyo sidewall of the Rito Seco, and (2) the plume of affected groundwater within the Rito Seco alluvial aquifer downgradient of the West Pit that flows along the naturally occurring hydraulic gradient and that may flow into the Rito Seco. The activities will include the following specific requirements:

 The elevation of the groundwater table in the vicinity of the West Pit shall be measured on a weekly basis at the following locations: (i) the West Pit backfill wells BF-4 and BF-5 and (ii) the Rito Seco alluvial wells M-16 and M-20, as shown in Figure 3 of the permit, for purposes of determining the performance of the "pump and treat" system that regulates the flow and quality of the groundwater in the seepage front. The permittee shall also determine on a quarterly basis the elevations of the groundwater table at BF-3, BF-4, BF-5, BF-6, M-11R, M-16, M-17, M-18, M-19, M-20, M-21, M-22, M-23, M-24, M-25, M-26, M-27, M-28, M-29, M-30, M-31, M-32, and M-33 for the purpose of developing a groundwater potentiometric map as monitoring confirmation of the groundwater flow direction. The quarterly data regarding depth to groundwater and groundwater potentiometric surface map will be submitted to the WQCD with the BMP report as described.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the weekly West Pit backfill and alluvial wells as required under Paragraph 1 of the specific requirements. Measurements obtained for the weekly West Pit backfill wells (BF-4 and BF-5R) and alluvial wells (M-16 and M-20) are shown in Table 1. The quarterly groundwater elevations required under Paragraph 1 were also measured and are shown in Table 2. A potentiometric surface map, developed by Engineering Analytics, is shown in Figure 1. The groundwater table elevations and potentiometric map confirm that the groundwater flow gradient during the third quarter of 2022 was from the Rito Seco to the West Pit. No corrective action is required under Paragraph 1 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
	07/06/2022	8579.36
	07/13/2022	8579.30
	07/20/2022	8579.29
	07/27/2022	8579.28
	08/03/2022	8579.39
	08/10/2022	8579.30
BF-4	08/17/2022	8579.29
	08/24/2022	8579.31
	08/31/2022	8579.28
	09/07/2022	8579.32
	09/14/2022	8579.34
	09/21/2022	8579.32
	09/28/2022	8579.33
	07/06/2022	8579.12
	07/13/2022	8579.10
	07/20/2022	8579.06
	07/27/2022	8579.04
	08/03/2022	8579.13
	08/10/2022	8579.09
BF-5R	08/17/2022	8579.06
	08/24/2022	8579.11
	08/31/2022	8579.09
	09/07/2022	8579.07
	09/14/2022	8579.13
	09/21/2022	8579.08
	09/28/2022	8579.12

Table 1 – Weekly Groundwater Elevations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
	07/06/2022	8601.65
	07/13/2022	8601.63
	07/20/2022	8601.56
	07/27/2022	8601.41
	08/03/2022	8601.67
	08/10/2022	8601.95
M-16	08/17/2022	8602.13
	08/24/2022	8602.30
	08/31/2022	8601.41
	09/07/2022	8602.69
	09/14/2022	8602.86
	09/21/2022	8602.94
	09/28/2022	8603.02
	07/06/2022	8580.67
	07/13/2022	8580.61
	07/20/2022	8580.54
	07/27/2022	8580.54
	08/03/2022	8580.81
	08/10/2022	8580.66
M-20	08/17/2022	8580.52
	08/24/2022	8580.46
	08/31/2022	8580.54
	09/07/2022	8580.38
	09/14/2022	8580.42
	09/21/2022	8580.34
	09/28/2022	8580.53

Table 1 – Weekly Groundwater Elevations (continued)

Table 2 – Quarterly Groundwater Elevations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
BF-3	07/28/2022	8578.00
BF-4	07/28/2022	8579.28
BF-5R	07/28/2022	8579.05
BF-6	07/28/2022	8578.97
M-11R	07/28/2022	8550.83
M-16	07/28/2022	8601.41
M-17	07/28/2022	8586.79
M-18	07/28/2022	8581.31
M-19	07/28/2022	8581.63
M-20	07/28/2022	8580.54
M-21	07/28/2022	8577.48
M-22	07/28/2022	8572.87
M-23	07/28/2022	8556.06
M-24	07/28/2022	8559.58
M-25	07/28/2022	DRY
M-26	07/28/2022	8544.20
M-27	07/28/2022	DRY
M-28	07/28/2022	8580.85
M-29	07/28/2022	8581.38
M-30	07/28/2022	8610.00
M-31	07/28/2022	8550.46
M-32	07/28/2022	8533.56
M-33	07/28/2022	8534.73

2) The weekly groundwater table elevation data shall be tabulated and reported on the quarterly BMP reports, and the data will be used to evaluate compliance with the following permit limitations.

The groundwater table elevation, based on the average of all measured values for each calendar month in the West Pit backfill groundwater monitoring wells BF-4 and BF-5, must be equal to or lower than an elevation of 8582 feet above sea level (ft. amsl).

Compliance Action Taken: Battle Mountain Resources, Inc. measured the West Pit backfill monitoring wells (BF-4 and BF-5R) weekly and the measurements are shown in Table 1. The groundwater measurements for wells BF-4 and BF-5R were averaged by calendar month and the results are shown in Table 3. The July, August, September 2022 averages were below the 8582 ft. amsl required in Paragraph 2. No corrective action is required under the Paragraph 2 requirement and schedule compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Month (2022)	Number of Observations	Average Monthly Groundwater Elevation (ft amsl)
	July	4	8579.31
BF-4	August	5	8579.31
	September	4	8579.33
	July	4	8579.08
BF-5R	August	5	8579.10
	September	4	8579.10

Table 3 – Quarterly West Pit Backfill Monthly Average Groundwater Table Elevations

3) If the average monthly groundwater table elevation in the West Pit backfill for any calendar month, measured as described in the above paragraph, is greater than 8582 ft. amsl or the quarterly determination of the groundwater potentiometric surface map indicates that the flow of the groundwater is from the West Pit to the Rito Seco alluvium, the permittee shall verbally communicate such condition to WQCD within 24 hours of the determination of the condition (elevated West Pit backfill table or groundwater flow from the West Pit as indicated by the quarterly groundwater potentiometric surface map) and initiate the following compliance schedule.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the West Pit backfill monitoring wells (BF-4 and BF-5R) weekly and the calendar month average groundwater measurement elevations (Table 3) were below the 8582 ft. amsl required in Paragraph 2. The July 28, 2022, potentiometric surface map (Figure 1) shows the groundwater flow gradient was from the Rito Seco alluvium to the West Pit backfill. Therefore, site operations demonstrated the West Pit backfill groundwater level was maintained at or below an elevation of 8582 ft. amsl through the quarter. Therefore, no requirement(s) to initiate actions contained within the schedule of compliance for Section 5.3 is required.

4) The quality of groundwater in the vicinity of the West Pit shall be monitored on a monthly basis in the Rito Seco alluvial groundwater monitoring wells M-19, M-21, M-24 and M-11R for the purposes of monitoring the changes in the quality of the plume or affected groundwater in the Rito Seco alluvial aquifer. Groundwater quality in these monitoring wells will be analyzed for pH, temperature, total dissolved solids, calcium, sulfate, manganese, fluoride, copper, and iron for the purpose of evaluating the status of the groundwater quality in the downgradient groundwater plume. The groundwater quality data will be summarized and transmitted to the WQCD in the quarterly BMP report required under Part I, Section E.1 of this permit.

Compliance Action Taken: Battle Mountain Resources, Inc. collected monthly groundwater samples in the vicinity of the West Pit backfill area from Rito Seco alluvial monitoring wells M-19, M-21, M-24 and M-11R. No corrective action is required under the Paragraph 4 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Analyte	Reporting	Sample		Monitoring V	Vell Identifier	
Analyte	Units	Date	M-11R	M-19	M-21	M-24
		07/05/2022	7.18	6.52	6.93	7.03
pH	SU	08/01/2022	7.20	6.62	6.88	7.03
		09/01/2022	7.17	6.40	6.75	6.97
		07/05/2022	10.3	8.50	9.1	8.8
Temperature	°C	08/01/2022	10.6	10.8	10.3	8.9
-		09/01/2022	9.7	11.1	8.3	8.5
		07/05/2022	72.2	17.5	31.1	84.1
Calcium, Total	mg/L	08/01/2022	77.9	19.3	32.4	86.7
		09/01/2022	76.9	17.6	31.5	80.6
		07/05/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.002
Copper, Dissolved	mg/L	08/01/2022	LT 0.002	0.00617	0.00203	LT 0.002
		09/01/2022	LT 0.002	0.00226	LT 0.002	LT 0.002
		07/05/2022	LT 1.25	0.692	1.24	LT 1.25
Fluoride	mg/L	08/01/2022	0.867 H	0.826 H	1.36 H	0.796 H
		09/01/2022	LT 1.25	0.803	1.24	LT 1.25
		07/05/2022	LT 0.15	0.185	LT 0.15	4.47
Iron, Dissolved	mg/L	08/01/2022	LT 0.15	LT 0.15	LT 0.15	4.57
		09/01/2022	LT 0.15	0.727	LT 0.15	4.31
		07/05/2022	0.128	0.082	0.353	0.898
Manganese, Dissolved	mg/L	08/01/2022	0.121	0.055	0.373	0.930
-		09/01/2022	0.119	0.197	0.362	0.878
		07/05/2022	90.7	11.6	10.8	146
Sulfate	mg/L	08/01/2022	96.7 H	11.4 H	9.91 H	145 H
		09/01/2022	99.5	5.78	9.01	138
		07/05/2022	326	100	144	430
Total Dissolved Solids	mg/L	08/01/2022	338	102	134	418
		09/01/2022	342	100	134	414

Table 4 – Rito Seco Alluvial Groundwater Quality Summary

5) The historical seeps were caused by the plume of affected groundwater and may, in the future, also be caused by natural variation in the flow of groundwater in the vicinity of the area where the past seeps occurred. The permittee shall conduct a monthly visual inspection of the area of historical seeps and the permittee shall report any seepage flow that is associated with the area historic seepage expression, as is identified in Figure 2 of the permit. Results of the seep monitoring shall be tabulated and summarized in the quarterly BMP report.

If these inspections identified the occurrence of seeps, the permittee will be required to communicate verbally to the WQCD within 24 hours of the seepage observation, followed by written notification within 7 calendar days of the seepage observation. Verbal updates will then be provided to the WQCD every second day thereafter until the WQCD has made a determination regarding the status of the West Pit groundwater control system through the implementation of the following compliance schedule.

Compliance Action Taken: Battle Mountain Resources, Inc. performed monthly visual seepage expression inspections in the historic seepage area identified in Figure 2 of the permit. Visual observations during these inspections are shown in Table 5. No seepage expressions were observed in the historic seepage area during the third quarter of 2022. Therefore, no verbal or written notifications were required and the implementation of the compliance schedule was not required. No corrective action is required under the Paragraph 5 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Visual Inspection Date	Was Visual Observation of Seepage Determined in the Area of the Historic Seepage Expression	Comments
07/28/2022	No	All Dry
08/31/2022	No	All Dry
09/29/2022	No	All Dry

 Table 5 – Monthly Seepage Expression Inspection Tabulation

6) The BMP for the groundwater flow downgradient from the groundwater divide (see section VI.A.2 for the Rationale) that has been developed in the Rito Seco alluvial aquifer consists of a groundwater capture system in conjunction with groundwater table elevation control in the West Pit. The water management plan for the Rito Seco alluvial aquifer consists of pumping two groundwater capture wells (M-32 and M-33) located downgradient of the plume of affected groundwater. This action will allow flushing of constituents in the groundwater from the Rito Seco alluvial aquifer in that portion (plume) of the aquifer affected by previous flow of groundwater from the West Pit. Measurements of the groundwater table elevations will be taken on a weekly basis from M-32 and M-33. This data shall be tabulated and reported for outfall 002 on the quarterly BMP report, and the data will be used to evaluate compliance with the following permit limitation.

The groundwater table elevation, based on the average of all measured values for each calendar month at M-32 and M-33 in the Rito Seco alluvial aquifer, must be equal to or lower than an elevation of 8540 ft. amsl.

If the average monthly groundwater table elevations measured in the Rito Seco alluvial aquifer at M-32 and M-33 is greater than 8540 ft. amsl, the permitee shall initiate the following compliance schedule within 24 hours of the determination of groundwater table elevation exceedance.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the alluvial aquifer monitoring wells (M-32 and M-33) weekly and the resulting elevations are presented in Table 6. The groundwater elevations for wells M-32 and M-33 were averaged by calendar month and the results are shown in Table 6. The July, August, September 2022 averages were below the 8540 ft. amsl required under Paragraph 6. Therefore, site operations were in full compliance of Part I, Section 5.5 and there were no requirements(s) to initiate actions contained within the schedule of compliance for Section 5.5. No corrective action is required under Paragraph 6 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)	Month (2022)	Average Monthly Groundwater Elevation (ft amsl)		
	07/06/2022	8533.67				
	07/13/2022	8533.55				
	07/20/2022	8533.38	July	8533.49		
	07/27/2022	8533.30				
M-32	07/28/2022	8533.56				
IVI-52	08/03/2022	8533.25				
	08/10/2022	8532.33				
	08/17/2022	8531.15	August	8531.79		
	08/24/2022	8531.09				
	08/31/2022	8531.46				

Table 6 -	- Weekly/Monthl	v Rito Seco A	Alluvial Acmife	er Average Gi	roundwater Ta	able Elevations
I able 0	v cemy/month	y muo beco h	snu mai Asquite	I III CI uge OI	i vullu vatel 1	able Lievations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)	Month (2022)	Average Monthly Groundwater Elevation (ft amsl)
	09/07/2022	8531.63		
	09/14/2022	8531.59		
M-32	09/21/2022	8531.46	September	8531.48
	09/28/2022	8531.38		
	09/29/2022	8531.34		
	07/06/2022	8535.23		
	07/13/2022	8535.44		
	07/20/2022	8534.80	July	8534.97
	07/27/2022	8534.67		
	07/28/2022	8534.73		
	08/03/2022	8534.77		
	08/10/2022	8534.91		8535.53
M-33	08/17/2022	8535.23	August	
	08/24/2022	8535.27		
	08/31/2022	8536.51		
	09/07/2022	8536.49		
	09/14/2022	8536.74		
	09/21/2022	8536.80	September 8536.74	8536.74
	09/28/2022	8536.85		
	09/29/2022	8536.83		

Table 6 (Cont) – Weekly/Monthly Rito Seco Alluvial Aquifer Average Groundwater Table Elevations

7) The water quality of the Rito Seco will be assessed using surface water quality collected at RS-2, as shown in Figure 3. Surface water monitoring in the Rito Seco shall be conducted at RS-2 on a monthly basis and the laboratory analytical results shall be submitted to the WQCD in the quarterly BMP report. Water quality samples collected at RS-2 shall be analyzed for the following constituents: calcium, magnesium, sodium, potassium, ammonia, total dissolved solids, total hardness, pH, total suspended solids, cyanide (WAD and total), bicarbonate, alkalinity, chloride, sulfate, nitrate-nitrite, fluoride and the total and dissolved concentrations of aluminum, arsenic, barium, boron, cadmium, copper, chromium, iron, lead, manganese, mercury, nickel, selenium, silica, silver and zinc. The following compliance schedule shall be implemented in the event that any constituent exceeds the applicable water quality standards for the Rito Seco.

Compliance Action Taken: Battle Mountain Resources, Inc. collected monthly surface water samples in July, August, September 2022 at location RS-2, as shown in Figure 3 of the permit. Results of analyses performed on these samples are shown in Table 7. The results of the laboratory analytical testing show that the applicable water quality standards were met for the Rito Seco during the months of July, August, September 2022. Site operations were in full compliance of Part I, Section 5.7 and there was no requirement(s) to initiate actions contained within the schedule of compliance for Section 5.7. Scheduled compliance monitoring will continue unchanged next quarter.

Table 7 – RS-2 Surface Water Quality Results

Analyte	Reporting Units	07/05/2022	08/01/2022	09/01/2022
Alkalinity	mg/L as CaCO ₃	85.0	55.4	47.8
Aluminum, Dissolved	mg/L	LT 0.25	LT 0.25	LT 0.25
Aluminum, Total	mg/L	0.727	0.421	0.371
Ammonia as N	mg/L	LT 0.2	LT 0.2	LT 0.2
Arsenic, Dissolved	mg/L	LT 0.001	LT 0.001	LT 0.001
Arsenic, Total	mg/L	LT 0.001	LT 0.001	LT 0.001
Barium, Dissolved	mg/L	LT 0.035	LT 0.035	LT 0.035
Barium, Total	mg/L	0.0384	LT 0.035	LT 0.035
Bicarbonate as CaCO3	mg/L	85.0	55.4	47.8
Boron, Dissolved	mg/L	LT 0.1	LT 0.1	LT 0.1
Boron, Total	mg/L	LT 0.1	LT 0.1	LT 0.1
Cadmium, Dissolved	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Cadmium, Total	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Calcium, Total	mg/L	17.5	15.7	13.9
Carbonate as CaCO3	mg/L	LT 20	LT 20	LT 20
Chloride	mg/L	LT 2.0	LT 2.0	LT 2.0
Chromium, Dissolved	mg/L	LT 0.002	LT 0.002	LT 0.002
Chromium, Total	mg/L	LT 0.002	LT 0.002	LT 0.002
Copper, Dissolved	mg/L	LT 0.002	0.0104	LT 0.002
Copper, Total	mg/L	LT 0.002	LT 0.002	LT 0.002
Cyanide, Total	mg/L	LT 0.01	LT 0.01	LT 0.01
Cyanide, WAD	mg/L	LT 0.01H	LT 0.01	LT 0.01
Fluoride	mg/L	0.47	0.35	0.41
Hardness as CaCO3	mg/L	59	52	48
Iron, Dissolved	mg/L	0.411	0.239	0.216
Iron, Total	mg/L	1.41	0.803	0.673
Lead, Dissolved	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Lead, Total	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Magnesium, Total	mg/L	4.17	3.70	3.56
Manganese, Dissolved	mg/L	LT 0.05	LT 0.05	LT 0.05
Manganese, Total	mg/L	0.175	0.055	LT 0.05
Mercury, Dissolved	mg/L	LT 0.001	LT 0.001	LT 0.001
Mercury, Total	mg/L	LT 0.001	LT 0.001	LT 0.001
Nickel, Dissolved	mg/L	LT 0.04	LT 0.04	LT 0.04
Nickel, Total	mg/L	LT 0.04	LT 0.04	LT 0.04
Nitrate+Nitrite as N	mg/L	LT 0.1	LT 0.1	LT 0.1
pH	SU	7.35	7.25	6.98
Potassium, Total	mg/L	LT 1.0	LT 1.0	LT 1.0
Selenium, Dissolved	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Selenium, Total	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Silica, Total	mg/L	14.2	13.0	10.0
Silver, Dissolved	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Silver, Total	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Sodium, Total	mg/L	4.13	3.55	3.78
Sulfate	mg/L	3.39	2.32H	3.08
Total Dissolved Solids	mg/L	92	94	76
Total Suspended Solids	mg/L	23H	LT 20	LT 20
Zinc, Dissolved	mg/L	LT 0.05	LT 0.05	LT 0.05
Zinc, Total	mg/L	LT 0.05	LT 0.05	LT 0.05

8) If any component of the groundwater control system is not performing within the limits set forth in this permit, the permittee will be required to initiate appropriate compliance schedule activities, including the preparation of a response plan, for any and all components of the groundwater control system that do not meet the applicable

requirements. The permittee shall also conduct weekly sampling at RS-2 until such time as the other compliance schedule activity(ies) have been completed.

Compliance Action Taken: As demonstrated by the information and data presented in this report, all components of the groundwater control system performed within the limits set forth in the permit. Therefore, site operations were in full compliance of Part I, Section 8 and there was no requirement(s) to initiate actions contained within the schedule of compliance for Section 8.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is to the best of my knowledge and belief, is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Julio Madrid	Signature:	Julio Hund
			1

Date: October 26, 2022





September 1, 2022

Julio Madrid Battle Mountain Resources, Inc. P.O. Box 310 San Luis, CO 81152

Dear Julio:

Enclosed is the report for chronic biomonitoring tests performed for Battle Mountain Resources, Inc. on effluent from the 001B outfall. There was no statistically significant toxicity to either test species at any effluent concentration. The effluent passes WET (Whole Effluent Toxicity) testing requirements for this sampling period.

If you have any questions or concerns, please do not hesitate to contact me at (303) 661-9324.

Best regards,

Julie McKenney Aquatic Toxicologist II Enclosure(s): Invoice Report

REPORT OF CHRONIC BIOMONITORING TESTS CONDUCTED FOR BATTLE MOUNTAIN RESOURCES, INC. ON EFFLUENT FROM THE 001B OUTFALL

Prepared for:

Julio Madrid Battle Mountain Resources, Inc. P.O. box 310 San Luis, CO 81152

Prepared by:

Julie McKenney SeaCrest Group 500 S Arthur Ave. Suite 450 Louisville, Colorado 80027-3065 (303) 661-9324

September 1, 2022

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Chronic Toxicity Test Summary

Test:	 7-day static renewal using <i>Ceriodaphnia dubia</i> 7-day static renewal using fathead minnow (<i>Pimephales promelas</i>)
Client:	Battle Mountain Resources, Inc.
Test Procedure Followed:	<i>Ceriodaphnia dubia</i> : EPA/821/R-02-013. Method 1002.0 (2002) fathead minnow: EPA/821/R-02-013. Method 1000.0 (2002)
Sample Number:	422426.B
Dilution Water:	moderately hard laboratory reconstituted water
Test Organism Source:	SeaCrest Group
Reference Toxicant:	Sodium Chloride

Sample	Time of Collection	Date of Collection	Time of Receipt	Date of Receipt
Effluent 1	0600	08-22-2022	1100	08-22-2022
Effluent 2	0600	08-24-2022	1200	08-24-2022
Effluent 3	0600	08-26-2022	0945	08-26-2022

	Ceriodaphnia dubia	fathead minnow
Test Initiation Time	1230	1530
Test Initiation Date	08-22-2022	08-22-2022
Test Completion Time	1230	1430
Test Completion Date	08-28-2022	08-29-2022

Client: BMRI CO Site: 001B	D-0045675	SCG Project No.: 422426.B Project: Quarterly WET
Abstr	ract with Result	ts
Test Concentrations:	Control (0%),	13%, 26%, 52%, 76%, 100%
	10 for Cerioda	phnia dubia
Number of Organisms/Concentration:	40 for fathead	minnow
	10 for Cerioda	phnia dubia
Replicates at each Concentration:	4 for fathead m	iinnow

	Ceriodaphnia dubia	fathead minnow
Test vessel size/Exposure volume	30ml/15ml	500ml/200ml
Sub-lethal NOEL/IC25	100%/>100%	100%/>100%
Pass/Fail Status	PASS	PASS
Temperature Range (°C)	24.1 - 25.9	24.1 - 25.9
Dissolved Oxygen Range (mg/L)	6.6 - 8.2	4.7 - 7.8
pH Range	7.5 - 8.3	7.1 - 8.3
	Control (<i>Cerio</i> /FHM)	Effluent Sample
Hardness (mg/L as CaCO ₃)	91/87	58/40/42
Alkalinity (mg/L as CaCO ₃)	61/60	16/12/13
Total residual chlorine (mg/L)	<0.01	<0.01
Total ammonia (mg/L as NH3)	< 0.03	<0.03/<0.03/0.04

INTRODUCTION

Biomonitoring provides an effective means by which the toxicity of discharges from municipal, industrial, and mining operations can be tested. Among the advantages of biomonitoring is the ability to test complex effluents containing a broad range of contaminants. Biomonitoring, when used in conjunction with chemical analyses, can generate data capable of identifying a much wider range of contaminants.

The Colorado Water Quality Control Division requires certain NPDES permittees to perform acute and/or chronic biomonitoring tests. The chronic test measures significant differences in lethality and in reproduction (*Ceriodaphnia dubia*) or growth (fathead minnow – *Pimephales promelas*) between control and effluent-exposed organisms.

The present report discusses the results of chronic biomonitoring tests conducted on effluent from the Battle Mountain Resources, Inc. 001B discharge. These tests were conducted in accordance with EPA and State of Colorado procedures in August 2022.

MATERIALS AND METHODS

Sample Collection

Two gallons of the effluent were collected on three separate dates as specified in Permit CO-0045675. Samples were delivered chilled to the SeaCrest lab where they were held at 0-6°C. Chain of custody forms showing sample collection and laboratory arrival times are included (Appendix 1).

Dilution Water

Laboratory reconstituted water was used as both the dilution water source and the control for the tests. Reconstituted water for the *Ceriodaphnia dubia* test was produced by adding sodium bicarbonate, calcium sulfate, magnesium sulfate, potassium chloride, and sodium selenate to deionized water. Reconstituted water for the fathead minnow test was produced by adding sodium bicarbonate, calcium sulfate, magnesium sulfate, and potassium chloride to deionized water.

Test Organisms

The biomonitoring test used *Ceriodaphnia dubia*, cultured in the SeaCrest laboratory. The organisms are cultured in brood culture boards from which individual females are monitored for survival and reproduction for periods of up to two weeks. Neonates less than 24-hours old, released from third or subsequent broods of eight or more within an 8-hour period, are collected from the brood chambers and used in tests. The animals are fed daily with a mixture of Yeast, Cereal Leaves, and Trout Chow (YCT), produced in-house. This is supplemented with cultured green algae *(Selenastrum capricornutum)* provided by Aquatic Biosystems.

Less than one-day-old fathead minnow, cultured in the laboratory, were also used in the test. Adult fish are maintained in 10-gallon aquaria where females deposit their eggs on the under-surface of split PVC pipe sections. The eggs are collected daily and transferred to aerated containers where they hatch after three to four days. The larval fish are fed newly hatched brine shrimp (*Artemia* sp.) at least twice per day.

In-house organisms are tested monthly in a reference toxicant test using sodium chloride to monitor overall health and test reproducibility (Appendix 4).

Test Procedures

Upon receipt at the lab, samples were analyzed for alkalinity, ammonia, chlorine, conductivity, dissolved oxygen, hardness, and pH.

Methods used in chemical analysis

Alkalinity	EPA 310.2	Hach 8203	1-2030-85.2	
Ammonia	SM4500-NH3, C-E1997	ASTM D1426-08		
Chlorine	SM4500-CI D	Hach 10026		
Conductivity	SM2510			
Dissolved Oxygen	SM4500-O	Electrode: G-2001	Winkler (QC): B-F-2001	
Hardness	SM2340 B or C	Hach 8213		
pH	SM4500-H+ B-2000			

The test followed procedures in EPA³ and CDPHE⁴ guidelines. Exposure concentrations included control (0%), 13%, 26%, 52%, 76%, and 100% mixtures, diluted with moderately hard laboratory reconstituted water.

Individual *Ceriodaphnia dubia* were placed in 30ml plastic containers containing approximately 15ml of exposure medium. Ten replicates at each concentration were used. The animals were fed daily with the YCT mixture and an equal volume of the green algae *(Selenastrum capricornutum)*. The exposure medium was changed daily in each container and the number of young released overnight were counted and recorded. Young were removed from the containers daily and discarded. Routine measurements were made each day of temperature, dissolved oxygen, and pH before and after the water changes.

Fathead minnow were exposed in 500ml plastic cups to which 250ml of media was replaced daily. Four replicates were used at each concentration. Ten fish, less than 24-hours old, were placed in each cup. The fish were monitored daily for survival and fed live brine shrimp at least twice per day. After seven days, the fish were removed from the cups, euthanized with isopropyl alcohol, and then placed in aluminum pans and dried in an oven for a minimum of six hours at 100°C. The pans were then weighed on a five-place analytical balance to determine the average dry weight of the fish from each replicate.

Data Analysis

Data from the tests were analyzed on a personal computer using the CETIS program (developed by Tidepool Scientific Software). Statistical tests used in the analyses are shown in Table 1. Test acceptability was determined using control survival and reproduction/growth criteria, concentration-response relationships, and percent minimum significant differences (USEPA ^{5,6}).

v	ariance	D	istribution	
Bartlett Equality of Variance Test		Shapiro-Wilk W Normality Test		
	Statistical	Difference		
Species	Survival	Growth	Reproduction	IC ₂₅
Ceriodaphnia dubia	Fisher Exact/Bonferroni- Holm Test	N/A	Steel Many-One Rank Sum Test	ICp
fathead minnow	Steel Many-One Rank Sum Test	Dunnett Multiple Comparison Test	N/A	ICp

Table 1. Statistical methods used in testing for significant differences in test parameters.

RESULTS

Ceriodaphnia dubia Test Results

Test results for the *Ceriodaphnia dubia* are summarized in Table 2 and provided on the data sheets located in Appendix 2. Survival was 100% in the 100% effluent and ranged from 90% - 100% in the remaining effluent concentrations. Control survival was 90%. No statistically significant lethality was measured in any effluent concentration when compared to the control. The NOEL (No Observed Effect Level) for lethality was 100% and the LC₂₅ (Lethal Concentration 25) for lethality was >100%.

Average number of neonates was 29.8 in the 100% effluent concentration and ranged from 25.6 - 28.3 in the remaining effluent concentrations. Average number of neonates in the control was 25.2 for statistical analyses and test acceptability criteria. No statistically significant differences in the number of neonates were found between the control and any effluent concentration. The NOEL for reproduction was 100% and the IC₂₅ (Inhibition Concentration 25) for reproduction was >100%.

	Percent	Mean			Significant	nt Difference			
Concentration	Survival	Neonates	Min.	Max.	Lethality	Reprod.			
Control (0%)	90	25.2	6	37					
13%	90	25.6	0	39					
26%	100	26.6	13	38					
52%	100	28.3	14	36	(
76%	100	26.6	13	35					
100%	100	29.8	23	33					

Table 2. Summary of Ceriodaphnia dubia test results. An asterisk	*) denotes a statistically
significant difference from the control.	Active statements of a second second

Clien	t: BMRI	
Site:	001B	

Fathead Minnow Test Results

Fathead minnow results are summarized in Table 3 and are provided on data sheets in Appendix 3. Survival was 95% in the 100% effluent concentration and ranged from 98% - 100% in the remaining effluent concentrations. Control survival was 100%. No statistically significant lethality was measured in any effluent concentration when compared to the control. The NOEL for lethality was 100% and the LC₂₅ for lethality was >100%.

Average weight in the 100% effluent concentration was 0.298mg and ranged from 0.314mg - 0.372mg per individual in the remaining effluent concentrations. Average weight for the control fish was 0.343mg for statistical analyses and test acceptability criteria. No statistically significant differences for growth were measured in any effluent concentration when compared to the control. The NOEL for growth was 100% and the IC₂₅ for growth was >100%.

	Percent	Average			Significant	Difference
Concentration	Survival	Weight (mg)	Min.	Max.	Lethality	Growth
Control (0%)	100	0.343	0.295	0.375		
13%	100	0.372	0.323	0.424		
26%	98	0.314	0.304	0.339		
52%	100	0.344	0.331	0.364		
76%	98	0.341	0.315	0.376		
100%	95	0.298	0.272	0.329	2.1	

Table 3. Summary of fathead minnow test results. An asterisk (*) denotes a statistically significant difference from the control.

Test Acceptability

Acceptable control survival (80%) was achieved in both tests. Similarly, *Ceriodaphnia dubia* reproduction (average 15 neonates/organism) and fathead minnow growth (average 0.250mg/test container) in control organisms met required levels. PMSD was within the required limits for an acceptable test (Table 4).

Table 4. PMSD for chronic test parameters.

	fathead min	now growth	C. dubia reproduction				
	Lower bound	Upper bound	Lower bound	Upper bound			
PMSD	12	30	13 47				
(% Minimum significant difference)	14	.4	32	.6			

DISCUSSION

A failed test for this discharge occurs when there is an NOEL or IC_{25} less than the IWC (Instream Waste Concentration) of 52%. The NOEL represents the highest effluent concentration at which no statistically significant effect is observed. The IC_{25} represents an estimate of the effluent concentration that would cause a 25 percent reduction of a non-quantal biological measurement. A violation for this discharge occurs when both the NOEL and the IC_{25} are less than the IWC. Since neither test species demonstrated statistically significant differences meeting these criteria, the discharge passes WET testing requirements for this sampling period.

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- 4. CDPHE (Colorado Department of Public Health and Environment). 1998. Laboratory Guidelines for Conducting Whole Effluent Toxicity Tests. Water Quality Control Division.
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Appendix 1 - Chain of Custody with Sample Receipt Forms

20 ample intarer mile Observation good water flow, power onto Som I w, Som a h. Contained one Observationes and water flow, somer on to Sampley, Sample Container on Ice Observation good weter flow, power on to Sample Container on ie Observation quode under flow power onto Sampley Sample Container on ice outamer taller &n Sample container gallons tertlow poweron to Samptity, Jonnole Cont Observation apple weeter Plow, power on to Sampler, Sample N sound on to Sampler. Battle Mountain Gold Mine NPDE'S WET Test Log Volume sent to lab ucero, D. Cariño purton to. F W() Date 8/22/22 Circle One: minutes ~3 Hour Time 0900 · Observation 900 d water May. , marstas. R. Observation good water 01 Observation good wal GPM m per gallons reatment System Flow Rate 540. 0000 Sampling Personnel: A. Tauloc. Start Sample Program: Time 0600 00 Foral Volume Collected 4 X End Sample Program: Time_ Samples packed on ice 🕅 ~24 Hour Time 0600 SCO Sampling Schedule ~18 Hour Time 2400 BMRE Delivered ~21 Hour Time 0300 ~! 5 Hour Time 2100 ~6 Hour Time 1200 ~12 Hour Time 1800 ~9 Hour Time 1500 Completed COC the driver and state Cooler Sealed

SeaCrest Group Louisville, CO

Sample Receipt Form

Date:	08	2222			Initia	Is: SI	N	
Samples						~		
1. FedEx		UPS		Courier	Hand	Delivery	(circle	one)
	Notes:							
2. Chilled	l to Ship					Ambie	nt Chille	d
3. Cooler	Received Notes:	Broken o	r Leaking			Y	N	N
4. Sample	e Receive Notes:	d Broken o	or Leaking	g		Y	N	
5. Receiv	ed Within Notes:	36hr Hold	ling Time			Y	N	
6. Aeratic	on necessa	ary				Y	N	
7. pH adji	ustment ne	ecessary				Y	(\mathbb{N})	
3. Sample	e Received Notes: otion of Sa	d at Temp ເຈ	me da Ior, Odor,	and/or Preser	nce of Particu	Y	N N	
3. Sample	e Received Notes: otion of Sa Effluent:	d at Temp ഹെ Imple (Col	me da Ior, Odor,	y	nce of Particu	Y		
3. Sample	e Received Notes: otion of Sa Effluent: Receiving	d at Temp ഹെ Imple (Col	me da Ior, Odor, Cle	س and/or Preser	nce of Particu	Y		
3. Sample 9. Descrip	e Received Notes: otion of Sa Effluent: Receiving Presence	d at Temp Imple (Col I: <i>N A</i> of native	me da lor, Odor, Cle species:	my and/or Preser ນວດ, No Vi	nce of Particu	Y ılate Matter		
3. Sample 9. Descrip Lab #	e Received Notes: otion of Sa Effluent: Receiving Presence	d at Temp Som mple (Col d: N/A of native	me da lor, Odor, Cle species: pH	ງ and/or Preser ນຈເຼ∿ດ√i Cond	nce of Particu	Y ılate Matter		N
3. Sample 9. Descrip	e Received Notes: otion of Sa Effluent: Receiving Presence	d at Temp Imple (Col I: <i>N A</i> of native	me da lor, Odor, Cle species:	my and/or Preser ນວດ, No Vi	nce of Particu	Y ılate Matter		
3. Sample 9. Descrip Lab #	e Received Notes: otion of Sa Effluent: Receiving Presence	d at Temp Som mple (Col d: N/A of native	me da lor, Odor, Cle species: pH	ງ and/or Preser ນຈເຼ∿ດ√i Cond	nce of Particu	Y ılate Matter		
3. Sample 9. Descrip Lab # <u>426.8</u>	e Received Notes: otion of Sa Effluent: Receiving Presence Temp	d at Temp Som mple (Col d: N/A of native	me da lor, Odor, Cle species: pH	ງ and/or Preser ນຈເຼ∿ດ√i Cond	nce of Particu	Y ılate Matter		
3. Sample 9. Descrip Lab # <u>426.B</u> Custody	e Received Notes: otion of Sa Effluent: Receiving Presence Temp	d at Temp	me da lor, Odor, Cle species: <u>PH</u> 7.9	ງ and/or Preser ນຈເຼ∿ດ√i Cond	nce of Particu	Y ılate Matter		
3. Sample 9. Descrip Lab # <u>426.B</u> Custody 1. Presen	e Received Notes: otion of Sa Effluent: Receiving Presence <u>Temp</u> <u>12.5</u>	d at Temp Solumple (Col Col Cof native D.O. 7. 0	me da lor, Odor, Cle species: <u>PH</u> 7.9	ງ and/or Preser ນຈເຼ∿ດ√i Cond	nce of Particu	Y ılate Matter		
3. Sample 9. Descrip <u>Lab #</u> <u>426.8</u> Custody 1. Presen 2. Unbrok	e Received Notes: otion of Sa Effluent: Receiving Presence <u>Temp</u> <u>12.5</u> Seals: t on Outer	d at Temp Som imple (Col g: <i>N/A</i> of native D.O. 7. 0 Package ter Package	me da lor, Odor, Cle species: <u>PH</u> 7.9	ງ and/or Preser ນຈເຼ∿ດ√i Cond	nce of Particu sable pm	Y ılate Matter		

Analysis (Check all applicable)	(Circle)	-Coli)	r5) (Cir v) Circle) st Beld	27/2C 3elow /VI ((5e 5e 5isl/Fe is (Lis 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	11/21 11 mu 11 mu 10 (Ci 10 10 10 10 10 10 10 10 10 10 10 10 10	Metals Solids (Solids (Chromi Oil and Coliforn BOD/CC Olfher A Ofher A	· · · · ·				Daphnia magna	Daphnia magna Daphnia pulex		ed Bv (2) Bossing Br. (2)	t vereived by
-	selow) w)	vol98 Cate E	əteoib ibnl) l	c (Inc	inoni ccele	WET: P WET: C WET: P WET: P	#2				Vinnow K Cerio daphnia	nments:	0018	Relinguished Bv (2)	
		Co SUSZ	Colevert.	arin		Grab/ Lab ID Comp (Ma Uxe only)	COMD 422426.8				Test Species: Kethead Minnow	Special Instructions/Comments	outfall - 00	Received By (1)	Date/Time
εT	San Luis Madrid	San Luis,	E-Mail	Sampler: LauridS	DPDF DFAX	Date Time	864/22 0600				ements	6-9 Day	1-2 Day		Cianatura
Client/Project Name: BMRT	P. O./Project Number: San Lui Contact: Julio Madrid	Address: P.O. BOX 310	Phone #7/9 - 379-0827	Fax# N/A	Report By: 🕅 Mail	Sample Location or ID	W.E.T. Test 86				Turnaround Requirements (Analytical Testing Only)	Standard (10 days)	3-5 Day	Relinquished By (1)	Signature Date/Time

Battle Mountain Gold Mine NPDES WET Test Log

Treatment System Flow Rate <u>550</u>GPM ISCO Sampling Schedule <u>100</u>ml per <u>10</u>minutes Start Sample Program: Time <u>0600</u>Date <u>8-24-22</u>Circle One: M **O**F End Sample Program: Time <u>0600</u>Date <u>8-24-22</u>Circle One: M

Observation gund water flow, Pirner on to Sampler Sample Container on Sec. Observation and water flow, power on to Sampler, Sample Container on ice Observation good winder flow power ento Sampler, Sample Container on ile ~6 Hour Time 1200 Observation geod water flow, power conto Sample Container on ice Observation good water Flow, power on to Sampler, Sample Container on ice Observation good which en flow, powser onto Sample Contribution for the ~3 Hour Time 0900 · Observation good Werker flow, power on to Sampler, Sample Container varce Observationgood water flow, Power on to Sampler, Sample Container on gallons 1 Volume sent to lab Sampling Personnel: R. Lucero, D. Carino, A. Taylor, S. Muesta gallons BMRI Delivered [X] Fotal Volume Collècted 🤸 Samples packed on ice 🕅 -24 Hour Time OLOD ~18 Hour Time 2400 -9 Hour Time 1500 ~12 Hour Time 1800 ~15 Hour Time 2100 ~21 Hour Time 0300 Completed COC THO ART YOIG ON Cooler Sealed

Sam	ole	Recei	pt	Form
Saut		1.0000	P *	

SeaCrest Group Louisville, CO Form #: 42 Effective: January 2022

Project #	422 42	U.B				Samp	le #: 7	5	
Date:	082422					Initials	: M		
Samples	Were:	10.0		/					
1. FedEx		UPS		Courie	D	Hand	Delivery	(circle	one)
	Notes:								
2. Chilled	to Ship						Ambien	t Chille	d
3. Cooler	Received Notes:	Broken or	Leaking	1			Y	N	NA
4. Sample	Received Notes:	d Broken o	or Leakin	g			Y	N	
5. Receive	ed Within Notes:	36hr Hold	ing Time	0			Y	N	
6. Aeratio	n necessa	ıry					Y	N	
7. pH adju	istment ne	ecessary					Y	N	
8. Sample	Received			etween 0	-6°℃.		Y	N	NA
9. Descrip	tion of Sa Effluent: (mple (Col	or, Odor, Insible Pl	, and/or P M	resence	of Particul	ate Matter):		
	Receiving Presence		species:				Y	(N)	
Lab #	Temp	D.O.	pН	Cond					
422470-8#2	6-1	7.5	8.0	248					
Custody	Seale.								
1. Present		Package			$\langle \mathbf{v} \rangle$	N			
2. Unbrok			е		Q	N	NA		
3. Present					Y	N			
4. Unbrok					Y	N	NA		
Custody I	Documen	tation (Ch	nain of C	ustody):	-)		
1. Present					Ý	Ν			

\$0027 9325						əwn	loV letol	2 ad	1							(mo	T			1
lle, CO 8 03) 661				Iers	nietn	oJ ło	nədmuV	100	-	-			-	-		· (List Bel				Date/Time
500 S. Arthur Avenue, Unit 450 - Louisville, CO 80027 (303) 661.9324 - FAX (303) 661.9325	applicable)	(9124			(əjɔ.	D (Cir	Coliform BOD/CO Other Ai									Daphnia pulex 🔲 Other (List Below)			Received By (2)	
r Aver (3	all		57 (1-2	2 11 12			bns liO			-										Signature
vrthui	heck			ircle)) IV	/ wr	Chromiu									agna				
0 S. A	Analysis (Check			(wola	a tsil)	enoin A									Daphnia magna				Time
20(nalys		(əj:	5) (Ciro	sst/s	at/st) sbilo2									Dapł			[2]	Date/Time
	Ā			(-	wola	(List B	sletaM												d Bv	
λ		(mo	lə8 əte	oibnl)	эят/	(ЭIT\I	MET: P									Cerio daphnia			Relinquished By (2)	
STO	-						MET: A		_				-		_				Re	
FCU	-						MET: C	×	-	-	_	-	 -			₿.	ts:	100		Signature
CHAIN OF CUSTODY			(~ 811CA	@ Newmont. a	- Carine	07.1	Grab/ Lab ID ET: A Comp (va8 ⊍ze only) ₩ET: A	Comp 422426, B#3							_1	Test Species: Kethead Minnow	Special Instructions/Comments	outfall - 001	Received By (1)	Date/Time Sie (26/26/22) CALS
g	t.	is.	Santuis	12	Sampler: / a uid	EAX	Time	0600							_		6-9 Day Specia	1-2 Day	Receive	Signature
tGrou	-	San Luis	Machia			D PDF	D Date	8/22/22		4		_			Turnaround Requirements	(Analytical Testing Only)	ays)		iy (1)	Date/Time 8/26/27 6/200
Seacrestgroup	Client/Project Name:	P. O./Project Number: San	Address: P.O. BOX 310	Phone # 719 - 379 - 0827	Fax # N/A	Report By:	Sample Location or ID	W.E.T. Test							Turnaround	(Analytic	Standard (10 days)	3-5 Day Requested Report Date:	Relinquished By (1)	Signature

Battle Mountain Gold Mine NPDES WET Test Log

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Treatment System Flow Rate **550** GPM ISCO Sampling Schedule 100 ml per 10 minutes Start Sample Program: Time <u>6600</u> Date <u>8/26/22</u> Circle One: M WE

-

Sampling Personnel: A. Taylor, B. Lucero, D. Carino, S. Maeshas	~3 Hour Time DADD Observation apod water Flow, Power on to Sampler Sample Contaver on ice	Observation good water flow Power on to Sampler, Sample Container on ice	Observation good water flow, Power on to Sampler, Sample Container on ice	Observation good water flow, Power on to Sampler, Sample Container UN ice	Observation good wate flow forver on to Sampler, Sample cutalner on ice	Observation good water Plan, Power on to Sample, Sample Container on ICE	Observation good wate May, Power on to Sampler, Sumple I at ame on Ice	Observation good water Mow, forrer on to Sample of Sample lost and er on Tec	Volume sent to lab Z gallons. Contacts Lab: 303-794-8976(Henry Latimer)			
Taylor . R. Luce	Observation. QOOd ME	Observation 4000 Ma	Observation Good wat	Observation good wa	Observation good we	Observation good wa	Observation good way		1.5	22	d Samples	
Sampling Personnel: A.	~3 Hour Time D90D	~6 Hour Time 1200	~9 Hour Time 1500	~12 Hour Time 1800	~15 Hour Time 2100	~18 Hour Time ZHOD	~21 Hour Time 0300	-24 Hour Time ULOD	Fotal Volume Collected <u>H</u> gallons Samples packed on ice W	Completed COC Cooler Sealed 11PC - i han an ting	BMRI Deliveral Sample	

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SeaCrest Group Louisville, CO

Sample Receipt Form

THE

Project # 422 426, B						Sample #: 3				
Date: 082622						Initials: CM				
Samples	Were:			Y						
1. FedEx	Notes:	UPS		Courier	\langle	Hand D	elivery	(circl	e one)	
2. Chilled	to Ship						Ambi	ent Chille	ed	
3. Cooler	Received Notes:	Broken or	Leaking				Y	N) NA	
4. Sample	e Received Notes:	l Broken o	or Leaking)			Y	N	5	
5. Receive	ed Within Notes:	36hr Hold	ing Time			(Ý	N		
6. Aeratio	6. Aeration necessary 7. pH adjustment necessary						Y			
7. pH adju							Y			
	Received		erature be	etween 0-6	°C. F		Y	Ν	NA	
	tion of Sa Effluent:			and/or Pre	sence of	Particulat	e Matte	r):		
			o. o.c.					\cap		
Receiving: <i>N / A</i> Presence of native species:							Y	(N)		
Lab #	Temp	D.O.	рН	Cond	1					
422426.B		7.5	8-0	250						
Custody S 1. Present		Package		($\widehat{\mathbf{v}}$	N				
2. Unbroke			е		Y	N	NA			
3. Present					Y	N				
4. Unbroken on Sample Y					Y	N	NA			
Custody I	Documen	tation (Ch	ain of C	ustody):	_					
1. Present	Upon Re	ceipt of Sa	ample	(Y)	Ν				

Appendix 2 - Data Sheets for the Ceriodaphnia dubia Test

WET TEST REPORT FORM – CHRONIC

Permittee:	Battle Mounta	in Resources, Inc	•		
Permit No.:	CO-0045675				
Outfall:	001B – IWC: 52%				
Test Type:	Routine 🖂	Accelerated 🗌	Screen 🗌		
Test Species:	Ceriodaphnia dubia				

Test Start Time	Test Start Date	Test End Time	Test End Date	
1230	08-22-2022	1230	08-28-2022	

Test Results	Lethality/TCP3B	Reproduction/TKP3B
S code: NOEL	100%	100%
	PASS	PASS
P code: LC ₂₅ /IC ₂₅	>100%	>100%
	PASS	PASS
T code:	>100%	>100%

Test Summary

Measurements	Control (0%)	13%	26%	52%	76%	100%
Exposed organisms	10	10	10	10	10	10
Survival for day 1	10	10	10	10	10	10
Survival for day 2	10	10	10	10	10	10
Survival for day 3	10	10	10	10	10	10
Survival for day 4	9	9	10	10	10	10
Survival for day 5	9	9	10	10	10	10
Survival for day 6	9	9	10	10	10	10
Mean 3 Brood Total	25.2	25.6	26.6	28.3	26.6	29.8
ss (mg/L) – Receiv			Effluent: 5	58/40/42	Rec	con Wate

Hardness (mg/L) - Receiving Water: N/AEffluent: 58/40/42Recon Water: 91Alkalinity (mg/L) - Receiving Water: N/AEffluent: 16/12/13Recon Water: 61Chlorine (mg/L) - Effluent: <0.01</td>pH (initial/final) - Control: 8.3/7.9100%: 7.9/7.8Total Ammonia as NH₃ (mg/L) - Effluent: <0.03/<0.03/0.04</td>100%: 7.9/7.8

Were all Test Conditions in Conformance with Division Guidelines? YES \boxtimes NO \square If **NO**, list deviations from test specifications: N/A

Laboratory: SeaCrest Group

Comments:

Analyst's Name: Lindsay Rutherford, Daniela Thornton, and Julie McKenney

Date 199 /01/2012 Signature

SeaCrest Group
SeaCrest Group Louisville, CO

10

Ceriodaphnia Chronic Benchsheet

Form #: 101a Effective: March 2022

		IRI			_Lab #:	22.426.B	Site:	OOIL	5
NC %:	52	Te	mplate #: 5	Dilution	Water:	1 H22-17	Sample Date:	08222	12
ge & So	urce:	082222	1123	Те	st Start: OS	2222 1230	Test End:	08282	2 123
	ditions:								
	0	1	2	3	4	5	6	7	Total
C)	0	0	0	0	5	8	12	1	25
-1	0	0	0	0	8	13	16		37
	0	0	0	0	5	10	11		24
	0	0	0	0	U D				6
	0	0	0	0	7	12	17		36
0	0	0	0	4	0	10	18		32
•	0	0	0	0	5	7	10		22
	0	0	0	5	0	10	11		20
	0	0	0	0	6	н	12		29
	0	0	0	0	1	6	0		13
DO	7.0	6.7 16.9	7.0 7.0	6.9 1.0	6.7 172	6.8 6.9	7.1		
Temp			9 25.1 25.1	23 3 250	25.0 25.2	25.3 24.8	24.9	1	0-0
pH	8.3	81 8.	8.1 8.3	8. 83	81 8.3	80 83	7.9		25.2
Cond	309	310	355	345	313	329		1000	
1)	0	0	0	0	U	9	15		30
	0	0	0	0	O D				0
	0	0	0	0	6	12	17	(35
	0	0	0	Ö	5	12	15	ALC: NOT THE REAL PROPERTY OF	32
	0	0	0	0	1	14	18	1-1-1	39
13	0	0	0	0	5	9	01	ALC: NOT THE REAL PROPERTY OF	24
.5	0	0	0	0	4	7	12		23
	0	0	0	D	6	12	16		34
	0	0	0	0	5	7-	14	1	26
	0	0	0	0	5	7 +1	0	1000	13
DO	7.0	6.7 69	7.0 17.0	69 71	6.7 17.4	6.8 17.0	7.1		
Temp	25.9	25.2 25.	9 25.1 25.0		25.0 25.2	25.3 25.0	24.9	2-21	151
pH	83	8.1 8.1	- 8.0 8.3	8.0 8.3	51 82	7.9 8.3	7.9	1	25.6
Cond	300	302	339	310	305	318			
2)	0	0	0	0	6	12	14		32
	0	0	0	0	5	11	18		84
	0	0	0	0	5	8	U		13
	0	0	0	0	5	6	10		21
	0	0	0	0	5	12	21		38
26	0	0	0	0	6	10	10		24
	0	0	0	0	6	9	10	I	25
	0	0	0	0	5	9	15	Sec. 1.	29
	0	0	0	0	0	16	17		27
	0	0	0	0	5	9	7		21
DO	7.0	6.7 6.9	70 70	69 7-2	6-7 76	6.8 7.1	7.1		•
Temp	7.0	25.2 25	25.1 24.9	253 247	250 252	25.3 25.1	24.9		21.1
Temp pH	7.0 25.9 8.2	25.2 25.	7.9 8.2	253 247	230 252	25.3 25.1 7.8 8.3			26.6
Гетр pH Cond	7.0 25.9 8.2 290	25225. 8.0 8.1 292	7 25.1 24.9 7.9 8.2 327	23:3 247 14 8:2 290	250 252 80 82 245	25.3 25.1 7.9 8.3 310	24.9 7.9	6. Jó	
Гетр pH Cond	7.0 25.9 8.2 290 0	25:2 25: 8.0 8.1 292 0	9 25.1 24.9 7.9 8.2 327 0	253 247 14 82 290 0	23.0 23.2 8.0 8.2 245 7	25.3 25.1 7.8 8.3 310 10	24.9 7.9 15		32
emp pH Cond	7.0 25.9 8.2 290 0 0	25:2 25 : 8.0 8.1 292 0 0	7 25.1 24.9 7.9 8.2 327 0 0	253 247 14 82 290 0 0	250 252 80 82 245 7 6	25.3 25.1 7.8 8.3 310 10 12	24.9 7.9 15 16	10	32 34
emp pH Cond	7.0 25.9 8.2 290 0 0 0	25:2 25 : 8.0 8.1 292 0 0 0	1 25.1 24.9 7.9 8.2 327 0 0 0	233 147 19 82 290 0 0	230 252 80 82 245 7 6 7	25.3 25.1 7.9 8.3 310 10 12 10	24.9 7.9 15 16 19		32 34 36
emp pH Cond	7.0 25.9 8.2 240 0 0 0	252 25 8.0 8.1 292 0 0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	233 247 19 82 290 0 0 0 0	230 252 80 82 245 7 6 7 5	25.3 25.1 7.9 8.3 310 10 12 10 9	24.9 7.9 15 16 19 12		32 34 36 25
emp pH Cond	7.0 25.9 240 0 0 0 0 0	252 8.0 8.1 292 0 0 0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	233 247 19 82 290 0 0 0 0 0	230 252 30 82 245 7 6 7 5 5	25.3 25.1 7.8 8.3 310 10 12 10 9 11	24.9 7.9 15 16 19 12 20		32 34 36 25 36
emp pH Cond	7.0 25.9 240 0 0 0 0 0 0	252 25 8.0 8.1 292 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	253 1247 14 82 290 0 0 0 0 0 0	230 252 80 82 245 7 6 7 6 7 5 5	25.3 25.1 7.8 8.3 310 10 12 10 8 11 8	24.9 7.9 15 16 19 12 20 16		32 34 36 25 36 30
emp pH Cond	7.0 25.9 8.2 240 0 0 0 0 0 0 0 0	25 2 25 8.0 8 1 292 0 0 0 0 0 0 0 0 0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	253 1247 19 82 290 0 0 0 0 0 0 0 0 0 0 0	230 252 30 82 245 7 6 7 6 7 5 5 0 5	25.3 25.1 7.9 8.3 310 10 12 10 9 11 10 9 11 10 8 8	24.9 7.9 15 16 19 12 70 16 10		32 34 36 25 36 30 23
emp pH Cond)	7.0 25.9 8.2 0 0 0 0 0 0 0 0 0 0 0	25 2 25 8.0 8 1 292 0 0 0 0 0 0 0 0 0 0	1 25.1 24.7 7.9 8.2 327 0	253 1247 14 82 290 0 0 0 0 0 0	23-0 8-0 8-1 245 7 6 7 6 7 6 7 6 5 5 6 5 6	25.3 25.1 7.9 8.3 310 10 12 10 8 11 8 8 8 8	24.9 7.9 15 16 19 12 20 16 10 10 12		32 34 36 25 36 30 25 36 30 23 24
Temp pH Cond)	7.0 25.9 8.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	25 2 25 8.0 8 1 292 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	253 1247 19 82 290 0 0 0 0 0 0 0 0 0 0 0	23-0 8-0 8-1 245 7 6 7 6 7 6 7 6 7 6 7 6 5 5 6 5 6 0 5 0 5 0 5 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0	25.3 25.1 7.9 8.3 310 10 12 10 9 11 10 9 11 10 8 8	24.9 7.9 15 16 19 12 10 16 10 10 12 18		32 34 36 25 36 30 23 216 21
Femp pH Cond) 52	7.0 25.9 8.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	252 25 8.0 8.1 292 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	233 147 19 82 290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	230 252 80 82 245 7 6 7 6 7 6 7 6 5 6 5 6 0 5 6 0 5	25.3 25.1 7.9 8.3 310 10 12 10 9 11 12 10 8 8 8 8 9 1	24.9 7.9 15 16 19 12 10 10 10 10 12 18 0		32 34 36 25 36 30 25 36 30 23 24
DO	7.0 25.9 8.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	252 25: 8.0 8.1 9.0 8.1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	233 247 19 82 290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	230 252 80 82 245 7 6 7 6 7 6 7 6 7 5 6 5 6 0 5 6 0 5 6 0 5 6 0 5 6 0 5 6 0 5 6 0 5 6 0 5 6 0 5 6 0 5 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	25.3 25.1 7.8 8.3 310 10 12 10 8 8 8 8 8 9 1 6.8 7.2	24.9 7.9 15 16 19 12 20 16 10 12 18 0 7.1		32 34 36 25 36 30 23 21 21 21
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The

Ceriodaphnia Chronic Benchsheet

SeaCrest Group
Louisville, CO

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	0		0	1 17	0		0		Q	1.00	11	1	5		32
	0		0		0		0		3	2	8	8	2		19
-1	0		2	1	0		0	1	6		13	14			35
76	0)		0	-	ч		0	-	9		3		24
	0)		0	1	0		7	9	1		2		28
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DO	7.0		6.9	7.0	17.(6.9	17.4	6.6	18.0	6.8	17.4	7.1			
Temp	25.9	25.2	25.9	25.(24.5	253		230	231	25.3	25.6	24.9			211
pH	8.0	7.8		7.7	7.9	7.7	8.1	1.9	181	7.6	180	7.8			- 26.6
Cond	253	25	10		81		265		76		72	1		1000	00
5)	0)		Ő.		0		H	-		1 (4		27
	Ő		0		0		0		5	9		-	14		28
	Ö		0		0		6		0	1	2	1	4		32
	0		5		0		0		5		0		8		33
1	0)		0	-	0		6		7	i		-	30
100	0	Ó			0		3	1	3	1			7		31
1000	0	(0		0		6		0		5		31
	0	(0		4		0		4	1 1	7		30
1.1.1.1	0	0			0	-			4	()			8		33
	0)		0		0		4				0		13
DO	7.0	6.7		7.0	7.(6.9	17.5	6.6	18.2	6.8	7.5	7.1			12
Temp	25.9	25.2	159		243	253	24.1	25.0	251	25.3	25.9	24.9			
pH	7.9	7.7		7.6	7.6	1.0	8-0	79	8.0	7.5	7.8	7.8			29.8
Cond	233	23		7.0			156		40		54	1.0	9	State States	
Algae	ABS	AB		A			B5	-			B5	-	1		1
YCT	2205	220			05				35		06	-		-	
H ₂ O	2005	200		20	05		200		06	20				-	
Initials	10	it		D	T		m		M		, T	L	0		111
muais		Eff #1	-	CV		f #2	ni t		Ef	f#3	1		Reco	n	
lardness		58	-			10				2	_		91		
Alkalinity		6				2			-1	3		12.200	61		
Chlorine		0.01				0.01			L	0,01		-	101	01	
Ammonia		20103				0.03	()) () () () () () () () () (0.04	te internet		20.	.3	

Total Capacity: 30mL Total Solution Volume: 15ml

Food used: YCT, Algae

Active and

DO: mg/L Temp: °C Alkalinity: mg/L pH: N/A Chlorine: mg/L Cond: µS/cm³ Ammonia: mg/L

Comments:

x:y:z = board #:row:column

1	2	3	4	5	6	7	8	9	10
Dle	70	09	DID	62	€4	65	56	69	EIO

mobile

TM

CETIS Ana	alyti	ical Repo	ort								rt Date: Code/ID:			22 13:57 (p 1 of 1 5cd / 13-3699-900
Ceriodaphnia	7-d	Survival and	d Repr	oduction 1	est									SeaCrest Group
Analysis ID:	20-	4282-6415	<u>i</u> (Endpoint:	7d	Survival Rat	e			CETIS	Version	n: CETIS	v1.9.6	
Analyzed:	29 /	Aug-22 13:57		Analysis:	ST	2xK Contin	ngency Tabl	es	1	Status	s Level:	1		
Batch ID:	14-(0386-7502		Test Type	Rep	production-S	Survival (7d)	1		Analy	st: La	b Tech		
Start Date:	22/	Aug-22		Protocol:	EP,	A/821/R-02-	013 (2002)		1	Diluer	nt: Re	econstituted	Water	h.
Ending Date:	28/	Aug-22		Species:	Cer	iodaphnia d	ubia		8	Brine	No	ot Applicable	е	
Test Length:	6d	0h		Taxon:	Bra	nchiopoda			5	Sourc	e: In-	House Cult	ure	Age:
Sample ID:	02-0	0094-4637		Code:	422	426.B			1	Projec	et: W	ET Quarter	y Com	pliance Test (3Q)
Sample Date:	22/	Aug-22		Material:	PO	TW Effluent			5	Sourc	e: NF	PDES Perm	it # (X)	(99999999)
Receipt Date:	ample Date: 22 Aug-22 eccipt Date: 22 Aug-22			CAS (PC):					5	Statio	n: 00	1B		
Sample Age:	n/a			Client:	BM	RI								
Data Transfor	m	-	Alt H	ур					NOEL		LOEL	TOEL	τu	£
Untransformed	ł		C > T					_	100		>100	n/a	1	
Fisher Exact/	Bon	ferroni-Holm	Test	1										
Control	vs	Group		Test	Stat	P-Type	P-Value	Decision	(a:5%)					
Dilution Water		13		0.763	32	Exact	1.0000	Non-Sigr	ificant E	ffect				
		26		1.000	00	Exact	1.0000	Non-Sign	ificant E	ffect				
		52		1.000	00	Exact	1.0000	Non-Sigr	ificant E	ffect				
		76		1.000	00	Exact	1.0000	Non-Sign	ificant E	ffect				
		100		1.000	00	Exact	1.0000	Non-Sigr	ificant E	ffect	1			
Data Summar	У													
Conc-%		Code	NR	R		NR + R	Prop NR	Prop R	%Effe	ct				
0		D	9	1		10	0.9	0.1	0.0%					
13			9	1		10	0.9	0.1	0.0%					
26			10	0		10	1	0	-11.11	%				
52			10	0		10	1	0	-11.11					
76			10	0		10	1	0	-11.11					
100			10	0		10	1	0	-11.11	%				

Analyst: M QA: HW

CETI	S Ana	lytical Rep	ort						eport Date: est Code/IE			13:57 (p 1 of 1 / 13-3699-900
Ceriod	laphnia	7-d Survival an	nd Reprodu	uction Te	est						Se	eaCrest Group
Analys		09-4291-0087				And a fair of the state	2		ETIS Versio		Sv1.9.6	
Analyz	ed:	29 Aug-22 13:5	7 An	alysis:	Linear Interpola	ation (ICPIN)	St	atus Level	: 1		
Batch	100	14-0386-7502	Te	st Type:	Reproduction-S	Survival (7d)	0	Ar	alyst: L	ab Tech	1.0	
Start D	ate:	22 Aug-22	Pro	otocol:	EPA/821/R-02-	013 (2002)		Di	luent: F	Reconstitute	d Water	
Ending	Date:	28 Aug-22	Sp	ecies:	Ceriodaphnia d	lubia		Br	ine: N	Not Applicab	le	
Test Le	ength:	6d Oh	Ta	con:	Branchiopoda			Sc	ource: I	n-House Cu	lture	Age:
Sample	e ID:	02-0094-4637	Co	de:	422426.B			Pr	oject: V	VET Quarter	rly Complia	ance Test (3Q)
Sample	e Date:	22 Aug-22	Ma	terial:	POTW Effluent			So	urce: N	NPDES Pern	nit # (XX99	9999999)
Receip	t Date:	22 Aug-22	CA	S (PC):				Sta	ation: 0	001B		
Sample	e Age:	n/a	Cli	ent:	BMRI							
Linear	Interpo	lation Options										
X Tran	sform	Y Transform	n Se	ed	Resamples	Exp 95%	CL Met	hod				
Linear		Linear	206	51979	1000	Yes	Two	-Point Inte	rpolation			
Point E	stimat	es										
Level	%	95% LCL	95% UCL	. TU	95% LCL	95% UCL						
LC5	>100	n/a	n/a	<1	n/a	n/a						
LC10	>100	n/a	n/a	<1	n/a	n/a						
LC15	>100	n/a	n/a	<1	n/a	n/a						
LC20	>100	n/a	n/a	<1	n/a	n/a						
LC25	>100	n/a	n/a	<1	n/a	n/a						
LC40	>100	n/a	n/a	<1	n/a	n/a						
LC50	>100	n/a	n/a	<1	n/a	n/a						
7d Sur	vival Ra	ate Summary				Calcu	lated Varia	ate(A/B)			Iso	tonic Variate
Conc-%	6	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effec	t A/B	Mean	%Effect
0		D	10	0.9000	0.0000 0	1.0000	0.3162	35.14%	0.0%	9/10	0.966	7 0.0%
13			10	0.9000	0.0000	1.0000	0.3162	35.14%	0.0%	9/10	0.966	7 0.0%
26			10	1.0000	0 1.0000	1.0000	0.0000	0.00%	-11.119	% 10/10	0.966	7 0.0%
								100 C 10 C 10	March Office			Call International Call

52

76

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10/10

0.9667

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0.0%

0.0%

0.0%

CETIS Ana	lytic	al Repor	t								ort Date: Code/ID		Aug-22 13: 22426cd / 1	
Ceriodaphnia	7-d S	urvival and	Reprod	uction Te	st								SeaC	rest Gro
Analysis ID:	10-63	20-0454	Er	ndpoint:	Repr	roduction				CET	IS Versio	on: CETISv	1.9.6	
Analyzed:	29 Au	g-22 13:57	Ar	alysis:	Nonp	parametric	-Control	vs T	reatments	Stat	us Level	: 1		
Batch ID:	14-03	86-7502	Te	st Type:	Repr	roduction-S	Survival (7d)		Ana	lyst: L	ab Tech	2.5	
Start Date:	22 Au	g-22	Pr	otocol:	EPA	/821/R-02-	013 (200	2)		Dilu	ent: F	Reconstituted '	Water	
Ending Date:	28 Au	g-22	Sp	ecies:	Ceric	odaphnia d	ubia			Brin	e: N	Not Applicable		
Test Length:	6d 0h	ν————————————————————————————————————	Та	xon:	Bran	chiopoda				Sou	rce: I	n-House Cultu	ire	Age:
Sample ID:	02-00	94-4637	Co	ode:	4224	26.B				Proj	ect: V	VET Quarterly	Complianc	e Test (30
Sample Date:	22 Au	g-22	Ma	aterial:	POT	W Effluent				Sou	rce: N	NPDES Permit	t # (XX99999	9999)
Receipt Date:		The second se	C	AS (PC):						Stati	ion: C	001B	1.	
Sample Age:					BMR	a								
Data Transfor	m	1	Alt Hyp							NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C) > T						1	100	>100	n/a	1	32.55%
Steel Many-O	ne Rar	nk Sum Test	1.1		5	0.77								
Control	vs	Conc-%		Test S	tat	Critical	Ties	DF	P-Type	P-Value		on(a:5%)		
Dilution Water		13		108		75	3	18	CDF	0.8923		gnificant Effec		
		26		107		75	5	18	CDF	0.8746		gnificant Effec		
		52		114		75	4	18		0.9629	and the second sec	gnificant Effec		
		76		108		75	3	18	CDF	0.8923		gnificant Effec		
-		100		121.5		75	1	18	CDF	0.9933	Non-Si	gnificant Effec	ət	
ANOVA Table														
Source		Sum Square	s	Mean		ire	DF		F Stat	P-Value		on(a:5%)		
Between		150.483		30.096			5		0.4688	0.7978	Non-Si	gnificant Effec	t	
Error	_	3466.5		64.194	4		54	_	2000					
Total		3616.98					59							
ANOVA Assur	nption	s Tests												
Attribute	6	Test					Test St	at	Critical	P-Value	Decisio	on(a:1%)		
Variance		Bartlett Equa	lity of V	ariance Te	est		13.95		15.09	0.0160	Equal \	/ariances		
Distribution	4	Shapiro-Wilk	W Nor	mality Tes	t		0.9416		0.9459	0.0064	Non-No	ormal Distribut	tion	
Reproduction	Sumn	nary												
Conc-%			ount	Mean		95% LCL		CL		Min	Max	Std Err	CV%	%Effect
0			0	25.2		18.27	32.13		26	6	37	3.065	38.46%	0.00%
13			0	25.6		17.26	33.94		28	0	39	3.685	45.52%	-1.59%
26		1		26.6		21.43	31.77		26.5	13	38	2.286	27.18%	-5.56%
52		1		28.3		23.42	33.18		28.5	14	36	2.155	24.08%	-12.30%
76		1		26.6		21.69	31.51		27	13	35	2.172	25.82%	-5.56%
100		1	0	29.8		27.59	32.01		30.5	23	33	0.9752	10.35%	-18.25%

CETIS	S Ana	lytical Rep	ort					1.5	ort Da		•		57 (p 2 of 2
100			1.					Tes	t Code	/ID:	42242	26cd / *	3-3699-900
Ceriod	aphnia	7-d Survival a	nd Reprodu	uction T	est				21			Seat	crest Group
Analys	is ID:	16-2401-5629	En	dpoint:	Reproduction			CET	IS Ver	sion:	CETISv1.9.6	6	
Analyz	ed:	29 Aug-22 13:5	7 An	alysis:	Linear Interpola	ation (ICPIN)	Stat	us Lev	vel:	1		
Batch	ID:	14-0386-7502	Tes	st Type:	Reproduction-S	Survival (7d)	6	Ana	lyst:	Lab	Tech		
Start D	ate:	22 Aug-22	Pro	tocol:	EPA/821/R-02-	013 (2002)		Dilu	ent:	Reco	Instituted Wate	er	
Ending	Date:	28 Aug-22	Sp	ecies:	Ceriodaphnia d	lubia		Brin	e:	Not A	Applicable		
Test Le	ength:	6d Oh	Tax	con:	Branchiopoda			Sou	rce:	In-Ho	ouse Culture		Age:
Sample	D:	02-0094-4637	Co	de:	422426.B			Proj	ect:	WET	Quarterly Con	nplianc	e Test (3Q)
Sample	Date:	22 Aug-22	Ma	terial:	POTW Effluent			Sou	rce:	NPD	ES Permit # (X	X9999	9999)
Receip	t Date:	22 Aug-22	CA	S (PC):				Stat	ion:	001B	6		
Sample		10 10 10 10 10 10 10 10 10 10 10 10 10 1		ent:	BMRI								
Linear	Interpo	lation Options	2										
X Trans	sform	Y Transform	n See	ed	Resamples	Exp 95%	CL Met	hod					
Linear		Linear	988	818	1000	Yes	Two	-Point Interp	olation	1			
Point E	stimate	es											
Level	%	95% LCL	95% UCL	. TU	95% LCL	95% UCL							
IC5	>100	n/a	n/a	<1	n/a	n/a				-			
1010													
1010	>100	n/a	n/a	<1	n/a	n/a							
IC10 IC15	>100 >100	n/a n/a	n/a n/a	<1 <1	n/a n/a	n/a n/a							
IC15													
IC15 IC20	>100	n/a	n/a	<1	n/a	n/a							
IC15 IC20 IC25	>100 >100	n/a n/a	n/a n/a	<1 <1	n/a n/a	n/a n/a							
IC15 IC20 IC25 IC40	>100 >100 >100	n/a n/a n/a	n/a n/a n/a	<1 <1 <1	n/a n/a n/a	n/a n/a n/a							
IC15 IC20 IC25 IC40 IC50	>100 >100 >100 >100 >100 >100	n/a n/a n/a n/a	n/a n/a n/a n/a	<1 <1 <1 <1	n/a n/a n/a n/a	n/a n/a n/a n/a n/a	culated Va	riate				Isoto	nic Variate
IC15 IC20 IC25 IC40 IC50	>100 >100 >100 >100 >100 >100	n/a n/a n/a n/a n/a	n/a n/a n/a n/a	<1 <1 <1 <1	n/a n/a n/a n/a	n/a n/a n/a n/a n/a	culated Va Std Dev	riate CV%	%Ef	fect	M	Isotor	nic Variate %Effect
IC15 IC20 IC25 IC40 IC50 Reprod	>100 >100 >100 >100 >100 >100	n/a n/a n/a n/a n/a Summary	n/a n/a n/a n/a n/a	<1 <1 <1 <1	n/a n/a n/a n/a	n/a n/a n/a n/a Ca			%Ef			10000	<u></u>

27.18%

24.08%

25.82%

10.35%

-5.56%

-12.3%

-5.56%

-18.25%

26.6

28.3

26.6

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Appendix 3 - Data Sheets for the Fathead Minnow Test

Client: BMRI Site: 001B

WET TEST REPORT FORM – CHRONIC

Permittee:	Battle Moun	tain Resources, Inc		
Permit No.:	CO-0045675			
Outfall:	001B – IWC	: 52%		
Test Type:	Routine 🛛	Accelerated 🗌	Screen 🗌	
Test Species:	fathead minn	ow		

Fest Start Time	Test Start Date	Test End Time	Test End Date
1530	08-22-2022	1430	08-29-2022
Test Results	Lethality/TCP6C		Growth/TKP6C
S code: NOEL	100%		100%
	PASS		PASS
P code: LC ₂₅ /IC ₂₅	>100%		>100%
	PASS		PASS
T code:	>100%		>100%

Test Summary

Measurements	Control (0%)	13%	26%	52%	76%	100%
Exposed organisms	40	40	40	40	40	40
Survival for day 1	40	40	40	40	40	39
Survival for day 2	40	40	40	40	40	39
Survival for day 3	40	40	40	40	40	39
Survival for day 4	40	40	39	40	40	39
Survival for day 5	40	40	39	40	39	39
Survival for day 6	40	40	39	40	39	38
Survival for day 7	40	40	39	40	39	38
Mean Dry Wt. (mg)	0.343	0.372	0.314	0.344	0.341	0.298

Alkalinity (mg/L) - Receiving Water: N/AEffluent: 16/12/13Recon Water: 60Chlorine (mg/L) - Effluent: <0.01</td>pH (initial/final) - Control: 8.3/7.8100%: 7.7/7.1Total Ammonia as NH3 (mg/L) - Effluent: <0.03/<0.03/0.04</td>100%: 7.7/7.1

Were all Test Conditions in Conformance with Division Guidelines? YES \boxtimes NO \square If <u>NO</u>, list deviations from test specifications: N/A

Laboratory: SeaCrest Group

Comments:

Analyst's Name: Shanna Wepman and Catherine McDonald

Date 09/02/2022 Signature

SeaCrest Group

		1	Ave wt		5420	1			212				H16.9				ph:				1th				206.	0.710							1		T	Τ	Γ				T	1
Form #: 103a e: March 2022	120-		Fish Wt mg	0.368	0.375	0.375	0.795	h2h'4	16:0	0.373	10-3108		P06-0	0.709	1304	122.0	242.0		042-0	914:0	0.315	0.341	0.946331	6.329	242	0	0:316			1				0								
Form #: 103a Effective: March 2022	-22HW		Tare	hhzhl.	10	1.15736	1.14984	1.15460			1116059	1.16127		1.15295	1.16745	1.11874	1.16563	h1441.1	115458	1.16624	1.14280	1.1223G	1.14503	1.14166	1.11951	111962	1.16159					1.12660		+ mobile								
臣	Dilution H ₂ O: /		Fish & Tare	1219411	19391	16/11	1.15279	15884	04691	14566	16427	16466	13614	15604	PHOT1.	12205	16 905	87741.	15798	00011	14595	12577	148341	14495	12273	12237	I.IG475					12648		OCHIVE								
	Diluti		H =	#1 1		#3	#4	#2 !	#9	L 2#	#8	1 6#	#10	-	#12	#13	#14	#15	#16	#17	#18	#19	#20 \	#21	#22	#23	#24	#	ŧ.	#	#	#		i I								l
			1	# 0!	# ()	# ()	# ()	# 01	10 #	10 #	# 01	# 01	10 #	#	# 0)	# 01	10 #	# 01	# 0	10 #	4	10 #	10 #	# 6	1.1	4	# 01	-#	#	#				Comments:								I
	N	Test Conditions:	9	10	0	10	10	10	01	10	0	01	10	0	0)	10	0	10	10	10	0	0	0	6	10	0	101					pretest		Cor								l
	: 52	Conc	5	0	0	0	10	10	10	01	10	10	10	6	10	10	10	10	10	(0)	9	(0)	[0]	10	0	6	10								IG/L	a'r	J/G					I
	IWC:	Test	4	10	0	0	10	01	10	0	10	01	0	5	0	0	01	0	10	10	10	10	0	10	10	5	0	_						- the	Alk mull	Chlor: mg/L	NH ₃ : mg/L					I
	2	FHM	3	21	07	01	010	10	10	010	110	01	0	01	0110	10	01	0	0	01	10	10	2	10	01	0	01 0		_					Units:		. 0						I
leet	1228		2	01	01	0	910 10	010	010	11 (10	0	10	10	0110	010	0	0 10	0110	010	10	010	010	010	0110	0	010				_				J.C.	AIN	S/cm		i.			l
hsh	te: 09	Template:	1	01 0	0	0 10	-	0110	0 IC	0110	0 0	0 0	010	01 0	0 1(0	0 10	0 10	0 10	0 10	01 0	0 10	0 0	0 10	0 10)[0	0 0	0 10	0	0	0	0				Tamn' "C	pH: N/A	Cond: µS/cm ³					
Fathead Minnow Chronic Benchsheet	Sample Date: 082222	Ten	0	10	-	5 10	10	10	1 10	6 10	10	10	10	-	10	10	1 10	3 10	10	10	1 10	2 10	10	10	1 10	10	10	10	10	10	10	-	1	-	T		Г		4	-	1	$\frac{1}{2}$
onic	San	22	2	50	-			5.0	1.42 1	1		50	1.45 1	7.4		5	·h2 9	F		5	-	2.1 (100	15	6 74	7.					2	3		11 00	250 ml	.2 cm	6.5 cm		r day	Internia		I
Chre	\$	2280	9	6%		8.3	323		125.7		314	0.7		8.3	303	100	_	3	282	17.3		18.0	202	17.4	1 25	7.6	242					35	3			100	ľ	dule	2x per day	<24hr artemia		
MOL	126	井	_	13 8	5	2	ŝ		259	8:1 2			1 25.9	1	(~)		2	7.4	2	Ĩ'n	3 29	17.3	_	5.2	75:9	57	2				-	-	_	Exposure Chamber				eding Schedule				I
Min	422	s Info	5	_	S	0 0	4	10.8	2.2	8.1	3	0.0	25.4	00	2	1.0	S.C	8	33	-i	25.8	5.6	9	2.2	20	LL	5					£.	5	sure C		Area:	:0	Feeding				I
ead	Lab #:	Species Info:	4	20	24.5	2.8	314	2.8	245	1.7	30	5.8	24.4	51	r.	20	24:3	7.3	28	2.0	2.12	2.2	26	30	24.1	2.6	24					SMO		Expos	oluma.	Test Solution Surface A	Water Depth (constant):	11-1		sed:		
ath					-	3		2.	24.1	2.2	-	+	24.2	2.2	10	9	10	0.	71	_	_	0.	1	7.8	24.S	1	H			1					tion W	tion S	pth (c		Fed:	in poo		I
	8	0	4		25.3	000	324	10.0		8 8	316	0	4 2	5 6	300	00	25.4.24	0	192	11	853 244	5	212	0	S	317	254					SW	1		Test Solution V	t Solu	ter De	1		35	Т	1
	0018					-			3	5 7.		0	8	52		1	-	()		5	S	5	_	5.6	X	57		_				_	+	1	ο e		Na				+	-
	Site:		8	0.8		8.9	39	2.0	25.1	00	2	1.1	245	0.7	00	7.7	24.5	00	90	5.6	24.1	ŝ	0	J.C	24.1	36	1					CAM		MR				9	>	3	>5	5
		Test End: 0%2922		2.0	652	0	ä	1.	25.8	1.7	m	9.6	2.7	2.6	n	50	9.57	5.0	22	0.2	2.5	J.t	2	5.4	125.4	21	22					9	1	Rcv 3				5,	>	NY.	NI	1AAA
		580	-	0.8 0	22.52	2		9.0.0		2		0	0.0	N		0	5.			0.8 0	8.12	5		680	17 2	10					1 - 1	1		Rcv 2	t		T	4		CUM		
		End:	2			00	341	0) 7	2 2	8	SEF	2.0.8	20	0	20	310	5.12 3	30	262	3:6	12 2	5	2		2 24	17	292		-			CW			+	-	┝		2			_
		Test		5.2	23.9	00 (5	R	7.6		5	25.6	2.5	3.1	5	25.5	7.4	11	5	3	5	2	SC.	22.22	2.6	2					C		Rcv 1				3	>	ENO.	NIN	1 1
		08		7.1	24.7	2.5	0	ント	24.9	8.2		7.1	1.62			1.1	25.3	80	0	1.1	S.S	6.6	00	1.1	25.8	7.6	+					2		Recon	- 4	<0.01	<0.03	2		W,	X	
dnu		-1530	٢	5		1.8	346	5.4	23.0		335	5.5	21.5	9	30	5.5	2.0.0	5	3010	5.0	25.5 2	.4 .	200	5.6	4 2	.3	4012					S		m	14	10				CMU C	- WWW	1.11
SeaCrest Group Louisville, CO	H	2222	0	S	0)				5				5				5			-	1-	1		3 25	5	4					2	-	~	+	-	10		-	_		
SeaCr Louisv	BMRJ	: 80 :		6.8		83	022 pt		np 25.2	8.3	p15 b1	7.7	1.1	_	-	7.4	N		74 28g	7.5	np 25.3	-	192 pt	7.6	np 253		HH2 PL		du		pt	35	+	-	10	W.W.	2			-	2.1	
	Client:	Test Start: 0% 2 2 7	Conc Read	8	100	Hd	Cond	OQ	Temp	Ha	5 Cond			F	Cond		52 Temp	Hd	Cond	OQ		Ha	Cond	-	OU Temp	Hd	Cond	DO	Temp	Hd	Cond	Initials	Water #		1.00	Chlor Ann		12	AM	Initials	Initials	Intrate
	C	Te	ő		C	ر			X	7:	5		3	1			15	1		1	5	2		1	2	-			_	_		1		1		5	Ż	Ľ				

CETIS Ana	lytic	al Rep	ort							ort Date: t Code/ID:		Aug-22 16 2426fhm /			
Fathead Minn	ow 7-	d Larval S	Survival a	and Growth	Test							Sea	Crest Gro		
Analysis ID:	01-25	19-7805	E	Indpoint: 7	d Survival Ra	te			CET	IS Version	: CETISV	1.9.6			
Analyzed:	30 AL	ig-22 16:2	23 A	Analysis: N	lonparametric	-Control	vs 7	reatments	Stat	us Level:	1				
Batch ID:	03-62	30-2756	1	est Type: 0	Growth-Surviva	al (7d)			Ana	lyst: La	b Tech				
Start Date:	22 Au	ig-22	F	rotocol: E	PA/821/R-02	-013 (20	02)				constituted	Water			
Ending Date:	29 AL	g-22	S	pecies: F	imephales pr	omelas			Brin	e: No	t Applicable				
Test Length:	7d 0	1	T	'axon: A	ctinopterygii				Sou	rce: In-	House Cultu	ire	Age:		
Sample ID:	08-29	40-5779	C	ode: 4	22426.B				Proj	ect: W	ET Quarterly	Complian	ce Test (3		
Sample Date:	22 Au	g-22	N	Material: P	OTW Effluen	t			Sou	rce: NF	DES Permi	# (XX9999	99999)		
Receipt Date:	22 Au	g-22	C	AS (PC):					Stat	ion: 00	1B				
Sample Age:	n/a		c	lient: B	MRI										
Data Transfor	m		Alt Hy	p					NOEL	LOEL	TOEL	TU	PMSD		
Angular (Corre	cted)	1	C > T						100	>100	n/a	1	6.72%		
Steel Many-Or	ne Rai	nk Sum T	est	1.1.1											
Control	/S	Conc-%		Test Sta	at Critical	Ties	DF	P-Type	P-Value	Decision	n(a:5%)				
Dilution Water		13		18	10	1	6	CDF	0.8333		nificant Effect	:t			
		26		16	10	1	6	CDF	0.6105	Non-Sigr	nificant Effect	at .			
		52		18	10	1	6	CDF	0.8333	Non-Sign	nificant Effect	:t			
		76		16	10	1	6	CDF	0.6105	Non-Sigr	nificant Effect	:t			
	0	100		14	10	1	6	CDF	0.3451	Non-Sigr	nificant Effect	t			
ANOVA Table															
Source		Sum Squ	ares	Mean S	quare	DF		F Stat	P-Value	Decision	n(a:5%)				
Between		0.0221328	8	0.00442	66	5		1.2	0.3485	Non-Sigr	nificant Effect	t			
Error		0.0663983	3	0.00368	88	18									
Total		0.088531	1			23						_			
ANOVA Assun	ption	s Tests													
Attribute	- 1	Test				Test S	tat	Critical	P-Value	Decision	n(a:1%)				
Variance			· · · · · · · · · · · · · · · · · · ·	Variance Tes	it					Indeterm	inate	9			
Distribution		Shapiro-W	Vilk W No	rmality Test		0.8314	ł	0.884	0.0010	Non-Nor	Indeterminate Non-Normal Distribution				
7d Survival Ra	te Su	mmary													
Conc-%		Code	Count	Mean	95% LCL	95% U		Median	Min	Max	Std Err	CV%	%Effec		
0		D	4	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000	0.0000	0.00%	0.00%		
13			4	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000	0.0000	0.00%	0.00%		
26			4	0.9750	0.8954	1.0000		1.0000	0.9000	1.0000	0.0250	5.13%	2.50%		
52			4	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000	0.0000	0.00%	0.00%		
76			4	0.9750	0.8954	1.0000		1.0000	0.9000	1.0000	0.0250	5.13%	2.50%		
100			4	0.9500	0.8581	1.0000	-	0.9500	0.9000	1.0000	0.0289	6.08%	5.00%		
Angular (Corre									22.5	5. m					
Conc-%		Code	Count	Mean	95% LCL	95% U	CL	Median	Min	Max	Std Err	CV%	%Effec		
		C	4	1.412	1.412	1.412		1.412	1.412	1.412	0	0.00%	0.00%		
13			4	1.412	1.412	1.412		1.412	1.412	1.412	0	0.00%	0.00%		
26			4	1.371	1.242	1.501		1.412	1.249	1.412	0.04074	5.94%	2.89%		
52			4	1.412	1.412	1.412		1.412	1.412	1.412	0	0.00%	0.00%		
76			4	1.371	1.242	1.501		1.412	1.249	1.412	0.04074	5.94%	2.89%		
76 100			4	1.331	1.181	1.48		1.331	1.249	1.412	0.04705	7.07%	5.77%		

Analyst: M QA: HW

CETR	s Ana	lytical Repo	ort						leport Dat est Code/			0 Aug-22 16 22426fhm / (
Fathea	d Minn	ow 7-d Larval S	urvival	and Grow	th Test							Sea	Crest Grou
Analys Analyz		20-7867-1816 30 Aug-22 16:23		Endpoint: Analysis:	7d Survival Ra Linear Interpola		1)		ETIS Versitatus Lev		CETIS	v1.9.6	
Batch	ID:	03-6230-2756		Test Type:	Growth-Surviva		2		nalyst:	Lab	Tech		
Start D		22 Aug-22		Protocol:	EPA/821/R-02-				iluent:		nstituted	Water	
210.13.2		29 Aug-22		Species:	Pimephales pro				rine:		Applicable		
HOMAN Y	ength:			Faxon:	Actinopterygii	Sincius			ource:		ouse Cult		Age:
Sample	e ID:	08-2940-5779	(Code:	422426.B			P	roject:	WET	Quarter	y Compliand	e Test (30
Sample	e Date:	22 Aug-22		Material:	POTW Effluent	6			ource:			it # (XX9999	
1		22 Aug-22		CAS (PC):					tation:	001B		1 A Y A 18 26 2	
- 1	e Age:			Client:	BMRI								
Linear	Interpo	lation Options											
X Tran	sform	Y Transform		Seed	Resamples	Exp 95%	CL Me	thod					
Linear		Linear	1	200371	1000	Yes		o-Point Int	erpolation	1			
Point E	stimate	es											
Level	%	95% LCL	95% U	CL TU	95% LCL	95% UCL							
LC5	100	61.6	n/a	1	n/a	1.623							
LC10	>100	n/a	n/a	<1	n/a	n/a							
LC15	>100	n/a	n/a	<1	n/a	n/a							
LC20	>100	n/a	n/a	<1	n/a	n/a							
LC25	>100	n/a	n/a	<1	n/a	n/a							
LC40	>100	n/a	n/a	<1	n/a	n/a							
LC50	>100	n/a	n/a	<1	n/a	n/a							
7d Sur	vival Ra	te Summary		-		Calcu	lated Var	iate(A/B)				Isoto	nic Variate
Conc-%	6	Code	Count	Mean		Max	Std Dev		%Eff		A/B	Mean	%Effec
0		D	4	1.000		1.0000	0.0000	0.00%	0.0%		40/40	1	0.0%
13			4	1.000		1.0000	0.0000	0.00%	0.0%		40/40	1	0.0%
26			4	0.975		1.0000	0.0500	5.13%	2.5%		39/40	0.9875	1.25%
52 76			4	1.0000		1.0000	0.0000	0.00%	0.0%		40/40	0.9875	1.25%
100			4 4	0.9750	13.14.21313	1.0000	0.0500 0.0577	5.13% 6.08%	2.5% 5.0%		39/40 38/40	0.975 0.95	2.5% 5.0%
7d Sur	vival Ra	te Detail				<u></u>		- JACAS					
Conc-%	6	Code	Rep 1	Rep 2	Rep 3	Rep 4							
0		D	1.0000	1.0000		1.0000							
13			1.0000	1.0000		1.0000							
26			1.0000	1.0000		1.0000							
52			1.0000	1.0000		1.0000							
76			1.0000	0.9000		1.0000							
100			0.9000	1.0000		1.0000							

Analyst: M QA: HW

Fathand Minu			O					_		100	t Code/II			2426fhm / 0	
Fathead Minn	iow /	d Larvai	Survival	and Grow	th Te	est						_		Seat	Crest Grou
Analysis ID: Analyzed:		538-6845 ug-22 16:2	23	Endpoint: Analysis:		an Dry Bior rametric-Co			itments		ris Versi tus Leve		CETISv1 1	.9.6	
Batch ID:	03-6	230-2756		Test Type:	Gr	owth-Surviva	al (7d)	5		Ana	lyst:	Lab	Tech		
Start Date:	22 A	ug-22		Protocol:	EP	A/821/R-02-	-013 (20	02)		Dilu	ent:	Reco	nstituted V	Vater	
Ending Date:	29 A	ug-22		Species:	Pin	nephales pr	omelas			Brin	ne:	Not A	pplicable		
Test Length:	7d 0	h		Taxon:	Act	inopterygii				Sou	rce:	In-Ho	ouse Cultur	e	Age:
Sample ID:	08-29	40-5779		Code:	422	2426.B				Pro	ject:	WET	Quarterly	Complianc	e Test (30
Sample Date:	22 A	ug-22		Material:	PO	TW Effluen	t			Sou	rce:	NPD	ES Permit	# (XX9999	9999)
Receipt Date:	22 A	ug-22		CAS (PC):						Stat	ion:	001B			
Sample Age:	n/a			Client:	BM	RI									
Data Transfor	m		Alt H	q						NOEL	LOEL		TOEL	TU	PMSD
Untransformed			C > T							100	>100	11	n/a	1	14.35%
Dunnett Multi	ple C	ompariso	n Test					-		-					
A LOUGH AND A	Salar Y	Constanting of		Teet	Stat	Critical	MSD	DE	Patuna	P-Value	Decisi	ion/~	. 5%)		
Dilution Water	0.00	01 M01 005 017		1.5.05	en 501.0	- Changererer	1.5 8.4 4	_		0.9941			cant Effect		_
Dilation Water			conc-% 3 6 2 6		•		12223332	131		0.2513		-	cant Effect		
	ion Water 13 -1.381 2.407 0.049 6 CDF 26 1.43 2.407 0.049 6 CDF 52 -0.04893 2.407 0.049 6 CDF 76 0.1225 2.407 0.049 6 CDF 100 2.212 2.407 0.049 6 CDF				0.8473			cant Effect							
										0.7947			cant Effect		
										0.0718			cant Effect		
ANOVA Table	,							-							
Source		Sum Sau	2705	Mean	Sau	1350	DF		F Stat	P-Value	Decisi	ionla			
Between				0.002			5	-	3.181	0.0313	Signifi				
Error	tween 0.0133146 or 0.015067 tal 0.0283816 OVA Assumptions Tests ribute Test				8371		18		5.101	0.0515	Signin	Cant	LIIEU		
Total	ween 0.0133146 or 0.015067 al 0.0283816 OVA Assumptions Tests ribute Test						23		-						
	NOVA Assumptions Tests tribute Test iriance Bartlett Equalit							-							
ttribute Test ariance Bartlett Equality							Tost C	tat	Critical	P-Value	Decision(a:1%)				
ariance Bartlett Equality				f Variance Test			4.216	lai	15.09	0.5188	Decision(a:1%) Equal Variances				
ttribute Test ariance Bartlett Equality istribution Shapiro-Wilk W							0.9623		0.884	0.4864	Equal Variances Normal Distribution				
Mean Dry Bior	mass.	ma Suma	narv					-	0103		0.001.0				
Conc-%	11033	Code	Count	Mean		95% LCL	95% U	CI	Median	Min	Max		Std Err	CV%	%Effect
)		D	4	0.343		0.285	0.4015	_	0.3515	0.295	0.375	_	0.01829	10.66%	0.00%
13			4	0.371		0.3058	0.4372		0.3695	0.323	0.424		0.02066	11.12%	-8.23%
26			4	0.314		0.2872	0.3408		0.3065	0.304	0.339		0.008415	5.36%	8.52%
52			4	0.344		0.322	0.3665		0.341	0.331	0.364		0.007004	4.07%	-0.29%
76			4	0.340		0.2996	0.3818		0.336	0.315	0.376		0.01291	7.58%	0.73%
100			4	0.298		0.2522	0.3438		0.2955	0.272	0.329		0.0144	9.67%	13.18%
Mean Dry Bior	nass-	mg Detail		100											
Conc-%		Code	Rep 1	Rep 2		Rep 3	Rep 4								
)	1	D	0.368	0.335		0.375	0.295	1							
3			0.424	0.371		0.323	0.368								
26			0.339	0.304		0.309	0.304								
52			0.331	0.342		0.364	0.34								
6			0.376	0.315		0.341	0.331								
100			0.329	0.272		0.275	0.316								

CETI	s Ana	lytical Repo	ort						ort Date t Code/II			2.2.4.2.5		24 (p 2 of 2 7-6714-650
Fathea	ad Minn	ow 7-d Larval S	urvival an	d Growt	h Test								SeaC	rest Group
Analys Analyz		06-1221-5683 30 Aug-22 16:23		dpoint: alysis:	Mean Dry Bion Linear Interpola)		TIS Versi tus Leve		CETIS 1	v1.9.6		
Batch	ID:	03-6230-2756	Te	st Type:	Growth-Surviva	al (7d)		Ana	lyst:	Lab 1	ech			
Start D	Date:	22 Aug-22		tocol:	EPA/821/R-02-			Dilu	ent:	Reco	nstituted	Water		
Ending	g Date:	29 Aug-22	Sp	ecies:	Pimephales pro	omelas		Brir	ie:	Not A	pplicabl	е		
Test L	ength:	7d Oh	Та	con:	Actinopterygii			Sou	rce:	In-Ho	use Cul	ture		Age:
Sampl	e ID:	08-2940-5779	Co	de:	422426.B			Pro	ject:	WET	Quarter	ly Comp	liance	e Test (3Q)
Sampl	e Date:	22 Aug-22	Ma	terial:	POTW Effluent			Sou	rce:	NPD	ES Perm	nit # (XX	99999	999)
Receip	t Date:	22 Aug-22	CA	S (PC):				Stat	ion:	001B				
Sampl	e Age:	n/a	Cli	ent:	BMRI									
Linear	Interpo	lation Options				1	2.2							
X Tran	sform	Y Transform	Se	ed	Resamples	Exp 95%	CL Meth	nod					_	
Linear		Linear	921	828	1000	Yes	Two-	Point Interp	olation					
Point B	Estimate	es												
Level	%	95% LCL	95% UCL	. TU	95% LCL	95% UCL	-							
IC5	22.53	and a second second	127.1	4.439	0.7869	11.17								
IC10	83.79		n/a	1.193		n/a								
IC15	96.04		n/a	1.041	n/a	1.385								
IC20	>100	n/a	n/a	<1	n/a	n/a								
IC25	>100	n/a	n/a	<1	n/a	n/a								
IC40	>100	n/a	n/a	<1	n/a	n/a								
IC50	>100	n/a	n/a	<1	n/a	n/a							_	
Mean [Dry Bior	mass-mg Summ	ary			Cal	culated Va	riate				l	soton	ic Variate
Conc-9	6	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effe	ct		Mea		%Effect
0		D	4	0.3433		0.375	0.03659	10.66%	0.0%			0.35		0.0%
13			4	0.3715		0.424	0.04132	11.12%	-8.23%			0.35		0.0%
26			4	0.314		0.339	0.01683	5.36%	8.52%			0.33		6.82%
52			4	0.3443		0.364	0.01401	4.07%	-0.29%			0.33		6.82%
76			4	0.3407		0.376	0.02583	7.58%	0.73%			0.33		6.82%
100			4	0.298	0.272	0.329	0.02881	9.67%	13.189	/0		0.29	18	16.62%
		nass-mg Detail												
Conc-%	6	Code	Rep 1	Rep 2		Rep 4					_			
0		D	0.368	0.335	0.375	0.295								
13			0.424	0.371	0.323	0.368								
26			0.339	0.304	0.309	0.304								
52			0.331	0.342	0.364	0.34								
76			0.376	0.315	0.341	0.331								
100			0.329	0.272	0.275	0.316								

Appendix 4 - QA/QC and Reference Toxicant Test Chart

Quality Assurance Check List - Chronic Whole Effluent Toxicity Test

Client:	Battle Mountain Resources, Inc.
SeaCrest Sample No:	422426.B
Species Tested:	Ceriodaphnia dubia and fathead minnow

	Start Date of Test	Start Date of Tes
Sample Dates	(Ceriodaphnia dubia)	(fathead minnow)
08-22-2022	The share seen as an	Same and the second second
08-24-2022		
08-26-2022	08-22-2022	08-22-2022

Sample received in lab properly preserved (0-6°C)?	N*
Sample received at laboratory within 36 hours of collection?	Y
Sample delivered on ice or equivalent?	Y
Test initiated within 36-hours of collection?	Y
Test protocol conforms to CDPHE guidelines (Ceriodaphnia dubia)?	Y
Test protocol conforms to CDPHE guidelines (fathead minnow)?	Y
Average test temp. ±1°C (Ceriodaphnia dubia)?	Y
Average test temp. ±1°C (fathead minnow)?	Y
DO level \geq 4.0mg/L; no super-saturation (<i>Ceriodaphnia dubia</i>)?	Y
DO level \geq 4.0mg/L; no super-saturation (fathead minnow)?	Y
Survival in control ≥80% (<i>Ceriodaphnia dubia</i>)?	Y
Survival in control ≥80% (fathead minnow)?	Y
Ceriodaphnia dubia neonates <24-hours old?	Y
Fathead minnow larvae <24-hours old?	Y
Appropriate reference toxicity test conducted?	Y
Reference toxicity test results within the confidence limits for the lab?	Y

* The samples were received at 12.5°C, 6.1°C, and 12.9°C on the same day as sampling.

Author

Position: Aquatic Tox/cologist

Quality Control

Date 09/01/2022

Date

SeaCrest Group

0
38
A:
40.5
14
5
44
1
G
41
1.01
100

METHOD QC

	Analyte	Date	LCS (rec)	%REC	%RPD	QC LIMITS
2320 B	Alkalinity - Total	7/7/2022	104.94%	97 78%	2 06%	
2320 B	Alkalinity - Total	7/14/2022	100 00%	00 250/	0.00.2	± 5.00%
2320 B	Alkalinity - Total	CCUC11C12	100.001	0/ 07.00	%,00.0	± 5.00%
2320 B	Alkalinity Total		100.88%	89.25%	1.59%	± 5.00%
AFOO MILE D		1128/2022	99.38%	102.26%	1.29%	+ 5 00%
	Ammonia	7/7/2022	96.40%	96.75%	-2.90%	+ 10 00%
1 200 NH3 D	Ammonia	7/14/2022	104.00%	103.18%	4.64%	- 10.00%
4500 NH3 D	Ammonia	7/19/2022	95.60%	95.10%	%2 U-	E 10.00%
4500 NH3 D	Ammonia	7/26/2022	95.60%	96 60%	7020	± 10.00%
4500 CI D	Chlorine	7/28/2022	103 03%	07 06%	0/ 16:7-	± 10.00%
2340 B	Hardness - Total	CCUCITIT	00 200	0/00.15	%,00.0	± 5.00, ± 20.00%
2340 B	Hardness - Total	220214 112	90.90%	101.44%	0.00%	± 5.00%
2340 B	Hardness Total		96.50%	100.00%	-0.58%	+ 5.00%
		2202/12/1	98.00%	103.00%	-1.09%	+ 5 00%
0 0+01	naroness - I otal	1/28/2022	101.75%	100.21%	-0.82%	± 5.00%
0 001			LCS (rec)	%REC M1	%REC M2	
0 0002	DO - Winkler	7/1/2022	N/A	100.00%	98 57%	
4500 0	DO - Winkler	7/7/2022	N/A	102 8 20L	1000 001	9,00%
4500 O	DO - Winkler	7/14/2022	N/A	DE 000/	0/ 20.201	± 5.00%
4500 O	DO - Winkler	CCOCI + CI L		30.03%	80.09%	± 5.00%
			N/A	100.00%	97.22%	± 5.00%
			Blank	%REC MR S	%RPD	
2540 D	Suspended Solids (TTL)	7/20/2022	100 00%	70UE 20		AC LIMITS
2540 C	Dissolved Solids (TTL)	7/20/2022	100.00%	99.64%	0.00%	± 15% ± 15%
Circulturo.	tat					A how M A
liame.	1.				Signature:	Ch W W KO
Date:	1 August 2	7,22			Date:	AUQUST 1 2022

SeaCrest Group 500 S Arthur Ave. Suite 450 Louisville, CO 80027 (303) 661.9324 FAX (303) 661.9325





+2 SD	CEUB C		DCR/7	2.7747	2.7747	2 77RC	2 766A	1001.2	2000	2070.2	2747.7	7.1810	2.8150	2.7797	2 7874	2 70R5	2 708.7	2061.2 1707 C	2002 C	2.1020	2.7453	2.7582	2.7828
-2 SD	1 3962	1 3070		1.3939	1.3939	1.4948	1 4945	1 5357	1 4386		4 E044	1 400.1	1.0042	1.5338	1.5310	1.5330	1.5330	1 6590	1 6774		1.1251	1.6951	1.6031
Mean	2.0997	2.0968	CVOU C	C+00-7	2.0843	2.1359	2.1304	2.1661	2.1319	2 1101	01420	2 1746	0 1 6 6 0	2.1300	2.1592	2.1656	2.1656	2.1982	2 2200	0 0966	6062.2	2.2267	2.1930
IC25	2.1250	2.3330	2 0710		2.1250	2.5000	2.2190	2.5000	1.5000	2.3330	2.5000	2 5000	2 1250	2.1200	2.5000	2.3330	1.8330	2.1250	2.4580	-2 12EN	2.1400	1.8330	1.6250
Date	12/04/20	01/04/21	02/15/21	FOLFOLEO	03/04/21	04/01/21	05/03/21	06/14/21	07/01/21	08/11/21	09/06/21	10/03/21	11/04/21		12/10/21	01/03/22	02/23/22	03/22/22	04/18/22	05/16/22	77101100	06/14/22	7/5/2022

CERIODAPHNIA REPRODUCTION IC25 NaCI REFTOX



1023	Mean	-2 SD	+2 SD
0.8229	1.0715	0 7730	
0.9453	1 05616	0 76620222	1.3/01
1 2100		0.100202203	1.347037767
00131	00001	0.7646	1.3625
0.3062	1.0540	0.7475	1 JOOL
1.0030	1 0450	0072.0	cnoc.1
1 1140		0.1400	1.3461
0+	1.0496	0.7472	1 3521
1.1340	1.0487	0 7475	120010
1.1550	1 0553	0.1500	1.3488
10100		80C/.0	1.3599
00101	C440.1	0.7516	1 3375
1.0820	1.0368	0 7574	1 2462
1.2630	1.0587	0 7807	2010.1
1.1930	1 0570		1.3367
1 1 100		0./830	1.3311
1.1450	1.0503	0.7931	1 3076
1.2300	1.0650	0 8016	01001
1.1390	1 0719	10000	1.3284
1 0040	10001	0.0004	1.3354
	1700.1	0.8489	1.3154
1796.0	1.0775	0.8376	1 3174
0.9716	1.0659	0 8293	1 3025
1.0920	1.0691	0.8330	07001
0 8750	0000	00000	5005.1
0.8750	1.0628	0.8330	

FHM SURVIVAL LC25 NaCI REFTOX



6.1596 6.3925	6.5101	6.7224	6.7226	6.7904	6.8135 6.8799	7.0713	0060'	.1688	2464	2622	872	081	488	112
		_						7	7.	7.2	7.3	7.4	7.4	7.41
2.0920 1.9849	1.7345	1.6465	1.6644	1.7899	1.9620	2.0849	1.9736	2.2009	2.4258	2.3657	2.3955	2.6626	2.7150	2.6328
4.1258 4.1887 4.0000	4.1223	4.1844	4.1935	4.2901	4.3/88	4.5781	4.5318	4.6848	4.8361	4.8140	4.8914	5.0353	5.0819	5.0220
6.1583 6.2160 2.2750	5.5000	6.2580	3.7000	5.1250	5.2000	6.3570	3.2000	6.0000	6.1400	3.5870	6.0670	6.0500	5.5000	4.1820
12/21 12/21	06/28/21	07/24/21	08/19/21	12/20/60	11/22/21	12/20/21	01/27/22	02/08/22	03/21/22	04/19/22	05/06/22	06/21/22	07/23/22	08/03/22
110	04/02/21	04/02/21 05/20/21 06/28/21	04/02/21 05/20/21 06/28/21 07/24/21	05/20/21 05/20/21 06/28/21 06/28/21 08/19/21	05/20/21 05/20/21 05/28/21 07/24/21 08/19/21 09/02/21	04/02/21 05/20/21 06/28/21 07/24/21 08/19/21 09/02/21 10/08/21	05/20/21 05/20/21 05/20/21 06/28/21 07/24/21 08/19/21 08/19/21 10/08/21 11/22/21 12/20/21	05/20/21 05/20/21 05/20/21 07/24/21 08/19/21 10/08/21 11/22/21 11/22/21 01/27/22	05/20/21 05/20/21 05/20/21 07/24/21 08/19/21 10/08/21 11/22/21 11/22/21 01/27/22 02/08/22	05/20/21 05/20/21 05/20/21 07/24/21 08/19/21 09/02/21 11/22/21 11/22/21 12/20/21 02/08/22 02/08/22 03/21/22	04/02/21 05/20/21 05/20/21 07/24/21 08/19/21 08/19/21 11/22/21 11/22/21 01/27/22 03/21/22 03/21/22 03/21/22	05/20/21 05/20/21 05/20/21 05/28/21 08/19/21 08/19/21 11/22/21 11/22/21 01/27/22 02/08/22 02/08/22 03/21/22 03/21/22 05/06/22	05/20/21 05/20/21 05/22/21 05/22/21 08/19/21 08/19/21 10/08/21 11/22/21 11/22/21 02/08/22 02/08/22 02/08/22 02/08/22 05/06/22 05/06/22 05/06/22	04/02/21 05/20/21 05/20/21 07/24/21 08/19/21 09/02/21 11/22/21 11/22/21 11/22/21 02/08/22 03/21/22 04/19/22 06/21/22 06/21/22 06/21/22

FHM GROWTH IC25 NaCI REFTOX



+2 SD	7.5231	7.5375	7.5919	7.7295	7.8162	7.9113	7.9582	7.9619	8.0895	8.0905	8.0771	8.0788	8.0692	7.9266	8.0729	8.2271	8.2074	8.2074	8.1587	8.1611
-2 SD	2.3784	2.6088	2.5891	2.5395	2.2272	2.2267	2.5384	2.8247	2.8982	2.9074	3.0315	3.0309	3.2082	3.7120	3.8121	3.8358	3.8376	3.8376	3.7409	3.7354
Mean	4.9508	5.0732	5.0905	5.1345	5.0217	5.0690	5.2483	5.3933	5.4939	5.4990	5.5543	5.5549	5.6387	5.8193	5.9425	6.0314	6.0225	6.0225	5.9498	5.9482
IC25	4.2580	5.7680	6.5280	6.8650	2.7590	6.2200	6.5530	6.2310	6.6650	5.0481	5.3520	6.7310	5.8200	6.6580	7.2690	7.2990	6.5630	6.5000	5.0500	4.6040
Date	01/04/21	02/03/21	03/25/21	04/02/21	05/20/21	06/28/21	07/24/21	08/19/21	09/02/21	10/08/21	11/22/21	12/20/21	01/27/22	02/08/22	03/21/22	04/19/22	05/06/22	06/21/22	07/23/22	08/03/22

Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

January 26, 2023

Colorado Department of Public Health and Environment Water Quality Control Division Attn: WQDC-B2 – DMR Receipt 4300 Cherry Creek Drive Denver, CO 80246-1530

Re: Battle Mountain Resources, Inc. San Luis Project - San Luis, Colorado Fourth Quarter 2022 – DMR's, BMP and WET Testing Reports CDPHE CDPS Permit No. CO0045675

Dear Sir or Madame:

Please find the enclosed Battle Mountain Resources, Inc. "San Luis Project" (Permit No. CO0045675) Colorado Department of Public Health and Environment-Colorado Discharge Permit System (CDPS) Best Management Practices (BMP) report for permitted outfall 002 for the fourth quarter 2022. The quarterly BMP report provides the required data associated with groundwater well elevations, the quarterly potentiometric surface map and groundwater well chemistry.

In addition, the fourth quarter 2022 Discharge Monitoring Reports (DMRs) were submitted for each of the permitted water treatment plant discharges in the NetDMR System and the WET Testing Reports were attached to the appropriate DMR submittal in NetDMR. These permitted discharges consist of water treatment plant Discharge Numbers 001-A and 001-B. During the quarter, the maximum 30-day average flow was 0.29 million gallons of water discharged per day, therefore the applicable permit criteria for the reporting period is associated with discharge number 001-B.

Should any questions arise or if I can be of any assistance providing clarification, please call me at (719) 379-0538.

Sincerely,

Julio Madrid Authorized Agent Battle Mountain Resources, Inc.

Cc: BMRI File Devon Horntvedt, Newmont USA Limited Lawrence Fiske, Newmont USA Limited Tim Runnells, Engineering Analytics Alan Fosdick, Engineering Analytics

Battle Mountain Resources, Inc.

San Luis Project P.O. Box 310 San Luis, Colorado 81152-0310 (719) 379-0798

January 26, 2023

Colorado Department of Public Health and Environment Water Quality Control Division Attn: WQDC-B2 – DMR Receipt 4300 Cherry Creek Drive Denver, CO 80246-1530

Re: Battle Mountain Resources, Inc. San Luis Project Fourth Quarter 2022 BMP Report CDPHE CDPS Permit No. CO0045675

Dear Sir or Madame:

In accordance with and compliance of the permit limitations and permit terms and conditions contained in Part I, Section 5 <u>Discharge Point 002</u>: (Permit Limitations, Best Management Practices, and Schedule of Compliance of the *State of Colorado Authorization to Discharge Under the Colorado Discharge Permit System*, Battle Mountain Resources, Inc. submits the following *Quarterly Best Management Practices Report*.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 62.4, and the Colorado Discharge Permit System Regulations, Sections 61.8(2), 61.8(3)(n), and 61.8(3)(r), 5 C.C.R. 1002-61, the permittee shall continue to implement the following limitations, compliance schedules, and Best Management Practices (BMPs).

The attainment of applicable water quality standards will be implemented and evaluated through the application of the following limitations, compliance schedules, and BMPs that are designed to monitor and control the groundwater quality and quantity discharging from the West Pit to the Rito Seco alluvial aquifer.

Specifically, the limitations, compliance schedules, and BMPs are those activities that address contaminated groundwater that may flow into the Rito Seco. This includes: (1) the potential flow of the affected groundwater from the West Pit that, in the past, manifested itself in the formation of the surface seeps along the arroyo sidewall of the Rito Seco, and (2) the plume of affected groundwater within the Rito Seco alluvial aquifer downgradient of the West Pit that flows along the naturally occurring hydraulic gradient and that may flow into the Rito Seco. The activities will include the following specific requirements:

 The elevation of the groundwater table in the vicinity of the West Pit shall be measured on a weekly basis at the following locations: (i) the West Pit backfill wells BF-4 and BF-5 and (ii) the Rito Seco alluvial wells M-16 and M-20, as shown in Figure 3 of the permit, for purposes of determining the performance of the "pump and treat" system that regulates the flow and quality of the groundwater in the seepage front. The permittee shall also determine on a quarterly basis the elevations of the groundwater table at BF-3, BF-4, BF-5, BF-6, M-11R, M-16, M-17, M-18, M-19, M-20, M-21, M-22, M-23, M-24, M-25, M-26, M-27, M-28, M-29, M-30, M-31, M-32, and M-33 for the purpose of developing a groundwater potentiometric map as monitoring confirmation of the groundwater flow direction. The quarterly data regarding depth to groundwater and groundwater potentiometric surface map will be submitted to the WQCD with the BMP report as described.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the weekly West Pit backfill and alluvial wells as required under Paragraph 1 of the specific requirements. Measurements obtained for the weekly West Pit backfill wells (BF-4 and BF-5R) and alluvial wells (M-16 and M-20) are shown in Table 1. The quarterly groundwater elevations required under Paragraph 1 were also measured and are shown in Table 2. A potentiometric surface map, developed by Engineering Analytics, is shown in Figure 1. The groundwater table elevations and potentiometric map confirm that the groundwater flow gradient during the fourth quarter of 2022 was from the Rito Seco to the West Pit. No corrective action is required under Paragraph 1 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
	10/05/2022	8579.30
	10/12/2022	8579.27
	10/19/2022	8579.33
	10/26/2022	8579.38
	11/02/2022	8579.36
	11/09/2022	8579.53
BF-4	11/16/2022	8579.36
	11/23/2022	8579.40
	11/30/2022	8579.35
	12/07/2022	8579.31
	12/14/2022	8579.28
	12/21/2022	8579.29
	12/28/2022	8579.32
	10/05/2022	8579.10
	10/12/2022	8579.08
	10/19/2022	8579.12
	10/26/2022	8579.05
	11/02/2022	8579.08
	11/09/2022	8579.12
BF-5R	11/16/2022	8579.09
	11/23/2022	8579.08
	11/30/2022	8579.09
	12/07/2022	8579.04
	12/14/2022	8579.05
	12/21/2022	8579.04
	12/28/2022	8579.05

Table 1 – Weekly Groundwater Elevations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
	10/05/2022	8603.07
	10/12/2022	8603.06
	10/19/2022	8602.92
	10/26/2022	8602.99
	11/02/2022	8603.03
	11/09/2022	8603.13
M-16	11/16/2022	8603.16
	11/23/2022	8603.17
	11/30/2022	8603.05
	12/07/2022	8602.90
	12/14/2022	8602.79
	12/21/2022	8602.72
	12/28/2022	8602.68
	10/05/2022	8580.72
	10/12/2022	8580.84
	10/19/2022	8580.78
	10/26/2022	8580.75
	11/02/2022	8580.70
	11/09/2022	8580.69
M-20	11/16/2022	8580.61
	11/23/2022	8580.59
	11/30/2022	8580.56
	12/07/2022	8580.57
	12/14/2022	8580.40
	12/21/2022	8580.36
	12/28/2022	8580.29

Table 1 – Weekly Groundwater Elevations (continued)

Table 2 – Quarterly Groundwater Elevations

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)
BF-3	10/31/2022	8578.07
BF-4	10/31/2022	8579.36
BF-5R	10/31/2022	8579.07
BF-6	10/31/2022	8579.08
M-11R	10/31/2022	8550.85
M-16	10/31/2022	8603.03
M-17	10/31/2022	8588.00
M-18	10/31/2022	8580.78
M-19	10/31/2022	8581.25
M-20	10/31/2022	8580.70
M-21	10/31/2022	8578.25
M-22	10/31/2022	8573.68
M-23	10/31/2022	8556.39
M-24	10/31/2022	8559.75
M-25	10/31/2022	DRY
M-26	10/31/2022	8543.87
M-27	10/31/2022	DRY
M-28	10/31/2022	8580.42
M-29	10/31/2022	8581.14
M-30	10/31/2022	8612.92
M-31	10/31/2022	8550.42
M-32	10/31/2022	8530.96
M-33	10/31/2022	8538.37

2) The weekly groundwater table elevation data shall be tabulated and reported on the quarterly BMP reports, and the data will be used to evaluate compliance with the following permit limitations.

The groundwater table elevation, based on the average of all measured values for each calendar month in the West Pit backfill groundwater monitoring wells BF-4 and BF-5, must be equal to or lower than an elevation of 8582 feet above sea level (ft. amsl).

Compliance Action Taken: Battle Mountain Resources, Inc. measured the West Pit backfill monitoring wells (BF-4 and BF-5R) weekly and the measurements are shown in Table 1. The groundwater measurements for wells BF-4 and BF-5R were averaged by calendar month and the results are shown in Table 3. The October, November, December 2022 averages were below the 8582 ft. amsl required in Paragraph 2. No corrective action is required under the Paragraph 2 requirement and schedule compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Month (2022)	Number of Observations	Average Monthly Groundwater Elevation (ft amsl)
	October	4	8579.32
BF-4	November	5	8579.40
	December	4	8579.30
	October	4	8579.09
BF-5R	November	5	8579.09
	December	4	8579.05

Table 3 – Quarterly West Pit Backfill Monthly Average Groundwater Table Elevations

3) If the average monthly groundwater table elevation in the West Pit backfill for any calendar month, measured as described in the above paragraph, is greater than 8582 ft. amsl or the quarterly determination of the groundwater potentiometric surface map indicates that the flow of the groundwater is from the West Pit to the Rito Seco alluvium, the permittee shall verbally communicate such condition to WQCD within 24 hours of the determination of the condition (elevated West Pit backfill table or groundwater flow from the West Pit as indicated by the quarterly groundwater potentiometric surface map) and initiate the following compliance schedule.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the West Pit backfill monitoring wells (BF-4 and BF-5R) weekly and the calendar month average groundwater measurement elevations (Table 3) were below the 8582 ft. amsl required in Paragraph 2. The October 31, 2022, potentiometric surface map (Figure 1) shows the groundwater flow gradient was from the Rito Seco alluvium to the West Pit backfill. Therefore, site operations demonstrated the West Pit backfill groundwater level was maintained at or below an elevation of 8582 ft. amsl through the quarter. Therefore, no requirement(s) to initiate actions contained within the schedule of compliance for Section 5.3 is required.

4) The quality of groundwater in the vicinity of the West Pit shall be monitored on a monthly basis in the Rito Seco alluvial groundwater monitoring wells M-19, M-21, M-24 and M-11R for the purposes of monitoring the changes in the quality of the plume or affected groundwater in the Rito Seco alluvial aquifer. Groundwater quality in these monitoring wells will be analyzed for pH, temperature, total dissolved solids, calcium, sulfate, manganese, fluoride, copper, and iron for the purpose of evaluating the status of the groundwater quality in the downgradient groundwater plume. The groundwater quality data will be summarized and transmitted to the WQCD in the quarterly BMP report required under Part I, Section E.1 of this permit.

Compliance Action Taken: Battle Mountain Resources, Inc. collected monthly groundwater samples in the vicinity of the West Pit backfill area from Rito Seco alluvial monitoring wells M-19, M-21, M-24 and M-11R. No corrective action is required under the Paragraph 4 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Analyte	Reporting	Sample		Monitoring Well Identifier				
Analyte	Units	Date	M-11R	M-19	M-21	M-24		
		10/03/2022	7.12	6.52	6.86	6.86		
pН	SU	11/01/2022	7.01	6.48	6.53	6.83		
		12/05/2022	7.06	6.52	6.73	6.89		
		10/03/2022	9.4	11.5	8.2	8.2		
Temperature	°C	11/01/2022	10.1	11.3	8.3	8.6		
-		12/05/2022	9.4	11.5	8.1	8.1		
		10/03/2022	83.3	20.3	33.6	86.0		
Calcium, Total	mg/L	11/01/2022	77.1	18.3	29.0	81.5		
	_	12/05/2022	75.7	18.6	28.4	78.3		
		10/03/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.002		
Copper, Dissolved	mg/L	11/01/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.002		
		12/05/2022	LT 0.002	LT 0.002	LT 0.002	LT 0.002		
		10/03/2022	LT 1.25	0.832	1.30	LT 1.25		
Fluoride	mg/L	11/01/2022	0.828	0.819	1.18	LT 1.25		
		12/05/2022	0.842	0.811	1.30	LT 1.25		
		10/03/2022	LT 0.15	0.224	LT 0.15	4.43		
Iron, Dissolved	mg/L	11/01/2022	LT 0.15	LT 0.15	LT 0.15	4.31		
		12/05/2022	LT 0.15	LT 0.15	LT 0.15	4.18		
		10/03/2022	0.115	0.103	0.364	0.911		
Manganese, Dissolved	mg/L	11/01/2022	0.101	0.056	0.295	0.893		
-		12/05/2022	0.137	LT 0.05	0.351	0.875		
		10/03/2022	101	6.42	7.89	140		
Sulfate	mg/L	11/01/2022	108	7.63	7.47	140		
		12/05/2022	105	7.48	8.20	134		
		10/03/2022	336	100	136	408		
Total Dissolved Solids	mg/L	11/01/2022	340	92	128	410		
		12/05/2022	340	104	136	404		

Table 4 – Rito Seco Alluvial Groundwater Quality Summary

5) The historical seeps were caused by the plume of affected groundwater and may, in the future, also be caused by natural variation in the flow of groundwater in the vicinity of the area where the past seeps occurred. The permittee shall conduct a monthly visual inspection of the area of historical seeps and the permittee shall report any seepage flow that is associated with the area historic seepage expression, as is identified in Figure 2 of the permit. Results of the seep monitoring shall be tabulated and summarized in the quarterly BMP report.

If these inspections identified the occurrence of seeps, the permittee will be required to communicate verbally to the WQCD within 24 hours of the seepage observation, followed by written notification within 7 calendar days of the seepage observation. Verbal updates will then be provided to the WQCD every second day thereafter until the WQCD has made a determination regarding the status of the West Pit groundwater control system through the implementation of the following compliance schedule.

Compliance Action Taken: Battle Mountain Resources, Inc. performed monthly visual seepage expression inspections in the historic seepage area identified in Figure 2 of the permit. Visual observations during these inspections are shown in Table 5. No seepage expressions were observed in the historic seepage area during the fourth quarter of 2022. Therefore, no verbal or written notifications were required and the implementation of the compliance schedule was not required. No corrective action is required under the Paragraph 5 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Visual Inspection Date	Was Visual Observation of Seepage Determined in the Area of the Historic Seepage Expression	Comments
10/31/2022	No	All Dry
11/30/2022	No	All Dry
12/30/2022	No	All Dry

 Table 5 – Monthly Seepage Expression Inspection Tabulation

6) The BMP for the groundwater flow downgradient from the groundwater divide (see section VI.A.2 for the Rationale) that has been developed in the Rito Seco alluvial aquifer consists of a groundwater capture system in conjunction with groundwater table elevation control in the West Pit. The water management plan for the Rito Seco alluvial aquifer consists of pumping two groundwater capture wells (M-32 and M-33) located downgradient of the plume of affected groundwater. This action will allow flushing of constituents in the groundwater from the Rito Seco alluvial aquifer in that portion (plume) of the aquifer affected by previous flow of groundwater from the West Pit. Measurements of the groundwater table elevations will be taken on a weekly basis from M-32 and M-33. This data shall be tabulated and reported for outfall 002 on the quarterly BMP report, and the data will be used to evaluate compliance with the following permit limitation.

The groundwater table elevation, based on the average of all measured values for each calendar month at M-32 and M-33 in the Rito Seco alluvial aquifer, must be equal to or lower than an elevation of 8540 ft. amsl.

If the average monthly groundwater table elevations measured in the Rito Seco alluvial aquifer at M-32 and M-33 is greater than 8540 ft. amsl, the permitee shall initiate the following compliance schedule within 24 hours of the determination of groundwater table elevation exceedance.

Compliance Action Taken: Battle Mountain Resources, Inc. measured the alluvial aquifer monitoring wells (M-32 and M-33) weekly and the resulting elevations are presented in Table 6. The groundwater elevations for wells M-32 and M-33 were averaged by calendar month and the results are shown in Table 6. The October, November, December 2022 averages were below the 8540 ft. amsl required under Paragraph 6. Therefore, site operations were in full compliance of Part I, Section 5.5 and there were no requirements(s) to initiate actions contained within the schedule of compliance for Section 5.5. No corrective action is required under Paragraph 6 specific requirement and scheduled compliance monitoring will continue unchanged next quarter.

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)	Month (2022)	Average Monthly Groundwater Elevation (ft amsl)	
	10/05/2022	8531.32			
	10/12/2022	8530.56		8530.93	
	10/19/2022	8530.73	October		
	10/26/2022	8531.06			
M-32	10/31/2022	8530.96			
IVI-52	11/02/2022	8530.99			
	11/09/2022	8530.25			
	11/16/2022	8531.18	November	8529.41	
	11/23/2022	8531.67			
	11/30/2022	8526.19			

Monitoring Well Identification	Observation Date	Groundwater Elevation (ft amsl)	Month (2022)	Average Monthly Groundwater Elevation (ft amsl)	
	12/07/2022	8527.52			
	12/14/2022	8528.24			
M-32	12/21/2022	8528.14	December	8529.46	
	12/28/2022	8531.60			
	12/30/2022	8531.80			
	10/05/2022	8536.89			
	10/12/2022	8537.74			
	10/19/2022	8537.97	October	8537.84	
	10/26/2022	8538.23			
	10/31/2022	8538.37			
	11/02/2022	8538.34	-		
	11/09/2022	8526.88			
M-33	11/16/2022	8534.25	November	8533.96	
	11/23/2022	8534.36			
	11/30/2022	8534.97			
	12/07/2022	8535.22			
	12/14/2022	8535.25			
	12/21/2022	8535.72	December	8535.51	
	12/28/2022	8535.71			
	12/30/2022	8535.66			

Table 6 (Cont) – Weekly/Monthly Rito Seco Alluvial Aquifer Average Groundwater Table Elevations

7) The water quality of the Rito Seco will be assessed using surface water quality collected at RS-2, as shown in Figure 3. Surface water monitoring in the Rito Seco shall be conducted at RS-2 on a monthly basis and the laboratory analytical results shall be submitted to the WQCD in the quarterly BMP report. Water quality samples collected at RS-2 shall be analyzed for the following constituents: calcium, magnesium, sodium, potassium, ammonia, total dissolved solids, total hardness, pH, total suspended solids, cyanide (WAD and total), bicarbonate, alkalinity, chloride, sulfate, nitrate-nitrite, fluoride and the total and dissolved concentrations of aluminum, arsenic, barium, boron, cadmium, copper, chromium, iron, lead, manganese, mercury, nickel, selenium, silica, silver and zinc. The following compliance schedule shall be implemented in the event that any constituent exceeds the applicable water quality standards for the Rito Seco.

Compliance Action Taken: Battle Mountain Resources, Inc. collected monthly surface water samples in October, November, December 2022 at location RS-2, as shown in Figure 3 of the permit. Results of analyses performed on these samples are shown in Table 7. The results of the laboratory analytical testing show that the applicable water quality standards were met for the Rito Seco during the months of October, November, December 2022. Site operations were in full compliance of Part I, Section 5.7 and there was no requirement(s) to initiate actions contained within the schedule of compliance for Section 5.7. Scheduled compliance monitoring will continue unchanged next quarter.

Table 7 – RS-2 Surface Water Quality Results

Analyte	Reporting Units	10/03/2022	11/01/2022	12/05/2022
Alkalinity	mg/L as CaCO ₃	57.3	48.7	56.4
Aluminum, Dissolved	mg/L	LT 0.25	LT 0.25	LT 0.25
Aluminum, Total	mg/L	0.610	LT 0.25	LT 0.25
Ammonia as N	mg/L	LT 0.2	LT 0.2	LT 0.2
Arsenic, Dissolved	mg/L	LT 0.001	LT 0.001	LT 0.001
Arsenic, Total	mg/L	LT 0.001	LT 0.001	LT 0.001
Barium, Dissolved	mg/L	LT 0.035	LT 0.035	LT 0.035
Barium, Total	mg/L	LT 0.035	LT 0.035	LT 0.035
Bicarbonate as CaCO3	mg/L	57.3	48.7	56.4
Boron, Dissolved	mg/L	LT 0.1	LT 0.1	LT 0.1
Boron, Total	mg/L	LT 0.1	LT 0.1	LT 0.1
Cadmium, Dissolved	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Cadmium, Total	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Calcium, Total	mg/L	14.5	13.3	15.1
Carbonate as CaCO3	mg/L	LT 20	LT 20	LT 20
Chloride	mg/L	LT 2	4.36	LT 2
Chromium, Dissolved	mg/L	LT 0.002	LT 0.002	LT 0.002
Chromium, Total	mg/L	LT 0.002	LT 0.002	LT 0.002
Copper, Dissolved	mg/L	LT 0.002	LT 0.002	LT 0.002
Copper, Total	mg/L	LT 0.002	LT 0.002	LT 0.002
Cyanide, Total	mg/L	LT 0.01	LT 0.01	LT 0.01
Cyanide, WAD	mg/L	LT 0.01	LT 0.01	LT 0.01
Fluoride	mg/L	0.39	0.89	0.51
Hardness as CaCO3	mg/L	49.0	50	56
Iron, Dissolved	mg/L	0.167	0.160	LT 0.15
Iron, Total	mg/L	0.907	0.272	0.537
Lead, Dissolved	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Lead, Total	mg/L	0.00057	LT 0.0005	LT 0.0005
Magnesium, Total	mg/L	3.82	4.12	4.07
Manganese, Dissolved	mg/L	LT 0.05	LT 0.05	LT 0.05
Manganese, Total	mg/L	0.068	LT 0.05	LT 0.05
Mercury, Dissolved	mg/L	LT 0.001	LT 0.001	LT 0.001
Mercury, Total	mg/L	LT 0.001	LT 0.001	LT 0.001
Nickel, Dissolved	mg/L	LT 0.001	LT 0.04	LT 0.04
Nickel, Total	mg/L	LT 0.04	LT 0.04	LT 0.04
Nitrate+Nitrite as N	mg/L	LT 0.1	LT 0.1	LT 0.1
pH	SU	7.25	6.60	7.68
Potassium, Total	mg/L	1.20	1.13	1.01
Selenium, Dissolved	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Selenium, Total	mg/L	LT 0.00025	LT 0.00025	LT 0.00025
Silica, Total	mg/L	12.9	11.9	12.9
Silver, Dissolved	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Silver, Total	mg/L	LT 0.0005	LT 0.0005	LT 0.0005
Sodium, Total	mg/L	3.51	11.0	4.03
Sulfate	mg/L	2.21	16.6	4.33
Total Dissolved Solids	mg/L	78	96	80
Total Suspended Solids	mg/L	LT 20	LT 20	LT 20
Zinc, Dissolved	mg/L	LT 0.05	LT 0.05	LT 0.05
Zinc, Total	mg/L	LT 0.05	LT 0.05	LT 0.05

8) If any component of the groundwater control system is not performing within the limits set forth in this permit, the permittee will be required to initiate appropriate compliance schedule activities, including the preparation of a response plan, for any and all components of the groundwater control system that do not meet the applicable

requirements. The permittee shall also conduct weekly sampling at RS-2 until such time as the other compliance schedule activity(ies) have been completed.

Compliance Action Taken: As demonstrated by the information and data presented in this report, all components of the groundwater control system performed within the limits set forth in the permit. Therefore, site operations were in full compliance of Part I, Section 8 and there was no requirement(s) to initiate actions contained within the schedule of compliance for Section 8.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is to the best of my knowledge and belief, is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Julio Madrid	Signature:fulis Fund	

Date: January 26, 2023





October 21, 2022

Julio Madrid Battle Mountain Resources, Inc. P.O. Box 310 San Luis, CO 81152

Dear Julio:

Enclosed is the report for chronic biomonitoring tests performed for Battle Mountain Resources, Inc. on effluent from the 001B outfall. There was no statistically significant toxicity to either test species at any effluent concentration. The effluent passes WET (Whole Effluent Toxicity) testing requirements for this sampling period.

If you have any questions or concerns, please do not hesitate to contact me at (303) 661-9324.

Best regards,

Catherine McDonald Laboratory Supervisor Enclosure(s): Invoice Report

REPORT OF CHRONIC BIOMONITORING TESTS CONDUCTED FOR BATTLE MOUNTAIN RESOURCES, INC. ON EFFLUENT FROM THE 001B OUTFALL

Prepared for:

Julio Madrid Battle Mountain Resources, Inc. P.O. box 310 San Luis, CO 81152

Prepared by:

Catherine McDonald SeaCrest Group 500 S Arthur Ave. Suite 450 Louisville, Colorado 80027-3065 (303) 661-9324

October 21, 2022

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Chronic Toxicity Test Summary

Test:	7-day static renewal using <i>Ceriodaphnia dubia</i> 7-day static renewal using fathead minnow (<i>Pimephales prome</i>		
Client:	Battle Mountain Resources, Inc.		
Test Procedure Followed:	<i>Ceriodaphnia dubia</i> : EPA/821/R-02-013. Method 1002.0 (2002) fathead minnow: EPA/821/R-02-013. Method 1000.0 (2002)		
Sample Number:	422492.B		
Dilution Water:	moderately hard laboratory reconstituted water		
Test Organism Source:	SeaCrest Group		
Reference Toxicant:	Sodium Chloride		

Sample	Time of Collection	Date of Collection	Time of Receipt	Date of Receipt
Effluent 1	0600	10-10-2022	1030	10-10-2022
Effluent 2	0600	10-12-2022	1035	10-12-2022
Effluent 3	0600	10-14-2022	1105	10-14-2022

	Ceriodaphnia dubia	fathead minnow
Test Initiation Time	1430	1430
Test Initiation Date	10-10-2022	10-10-2022
Test Completion Time	1400	1330
Test Completion Date	10-16-2022	10-17-2022

INTRODUCTION

Biomonitoring provides an effective means by which the toxicity of discharges from municipal, industrial, and mining operations can be tested. Among the advantages of biomonitoring is the ability to test complex effluents containing a broad range of contaminants. Biomonitoring, when used in conjunction with chemical analyses, can generate data capable of identifying a much wider range of contaminants.

The Colorado Water Quality Control Division requires certain NPDES permittees to perform acute and/or chronic biomonitoring tests. The chronic test measures significant differences in lethality and in reproduction (*Ceriodaphnia dubia*) or growth (fathead minnow – *Pimephales promelas*) between control and effluent-exposed organisms.

The present report discusses the results of chronic biomonitoring tests conducted on effluent from the Battle Mountain Resources, Inc. 001B discharge. These tests were conducted in accordance with EPA and State of Colorado procedures in October 2022.

MATERIALS AND METHODS

Sample Collection

Two gallons of the effluent were collected on three separate dates as specified in Permit CO-0045675. Samples were delivered chilled to the SeaCrest lab where they were held at 0-6°C. Chain of custody forms showing sample collection and laboratory arrival times are included (Appendix 1).

Dilution Water

Laboratory reconstituted water was used as both the dilution water source and the control for the tests. Reconstituted water for the *Ceriodaphnia dubia* test was produced by adding sodium bicarbonate, calcium sulfate, magnesium sulfate, potassium chloride, and sodium selenate to deionized water. Reconstituted water for the fathead minnow test was produced by adding sodium bicarbonate, calcium sulfate, magnesium sulfate, and potassium chloride to deionized water.

Test Organisms

The biomonitoring test used *Ceriodaphnia dubia*, cultured in the SeaCrest laboratory. The organisms are cultured in brood culture boards from which individual females are monitored for survival and reproduction for periods of up to two weeks. Neonates less than 24-hours old, released from third or subsequent broods of eight or more within an 8-hour period, are collected from the brood chambers and used in tests. The animals are fed daily with a mixture of Yeast, Cereal Leaves, and Trout Chow (YCT), produced in-house. This is supplemented with cultured green algae *(Selenastrum capricornutum)* provided by Aquatic Biosystems.

Less than one-day-old fathead minnow, cultured in the laboratory, were also used in the test. Adult fish are maintained in 10-gallon aquaria where females deposit their eggs on the under-surface of split PVC pipe sections. The eggs are collected daily and transferred to aerated containers where they hatch after three to four days. The larval fish are fed newly hatched brine shrimp (*Artemia* sp.) at least twice per day.
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Less than one-day-old fathead minnow, cultured in the laboratory, were also used in the test. Adult fish are maintained in 10-gallon aquaria where females deposit their eggs on the under-surface of split PVC pipe sections. The eggs are collected daily and transferred to aerated containers where they hatch after three to four days. The larval fish are fed newly hatched brine shrimp (*Artemia* sp.) at least twice per day.

In-house organisms are tested monthly in a reference toxicant test using sodium chloride to monitor overall health and test reproducibility (Appendix 4).

Test Procedures

Upon receipt at the lab, samples were analyzed for alkalinity, ammonia, chlorine, conductivity, dissolved oxygen, hardness, and pH.

Methods used in chemical analysis

Alkalinity	EPA 310.2	Hach 8203	I-2030-85.2
Ammonia	SM4500-NH3, C-E1997	ASTM D1426-08	
Chlorine	SM4500-C1 D	Hach 10026	
Conductivity	SM2510		
Dissolved Oxygen	SM4500-O	Electrode: G-2001	Winkler (QC): B-F-2001
Hardness	SM2340 B or C	Hach 8213	
рН	SM4500-H+ B-2000		

The test followed procedures in EPA³ and CDPHE⁴ guidelines. Exposure concentrations included control (0%), 13%, 26%, 52%, 76%, and 100% mixtures, diluted with moderately hard laboratory reconstituted water.

Individual *Ceriodaphnia dubia* were placed in 30ml plastic containers containing approximately 15ml of exposure medium. Ten replicates at each concentration were used. The animals were fed daily with the YCT mixture and an equal volume of the green algae *(Selenastrum capricornutum)*. The exposure medium was changed daily in each container and the number of young released overnight were counted and recorded. Young were removed from the containers daily and discarded. Routine measurements were made each day of temperature, dissolved oxygen, and pH before and after the water changes.

Fathead minnow were exposed in 500ml plastic cups to which 250ml of media was replaced daily. Four replicates were used at each concentration. Ten fish, less than 24-hours old, were placed in each cup. The fish were monitored daily for survival and fed live brine shrimp at least twice per day. After seven days, the fish were removed from the cups, euthanized with isopropyl alcohol, and then placed in aluminum pans and dried in an oven for a minimum of six hours at 100°C. The pans were then weighed on a five-place analytical balance to determine the average dry weight of the fish from each replicate.

Data Analysis

Data from the tests were analyzed on a personal computer using the CETIS program (developed by Tidepool Scientific Software). Statistical tests used in the analyses are shown in Table 1. Test acceptability was determined using control survival and reproduction/growth criteria, concentration-response relationships, and percent minimum significant differences (USEPA ^{5,6}).

Table 1. Statistical methods used in testi	ig for significant differences in test parameters.
--	--

v	ariance	D	Distribution								
Bartlett Equal	ity of Variance Test	Shapiro-Wilk W Normality Test									
	Statistical	Difference									
Species	Survival	Growth Reproduction									
Ceriodaphnia dubia	Fisher Exact/Bonferroni- Holm Test	N/A	Dunnett Multiple Comparison Test	ICp							
fathead minnow	Steel Many-One Rank Sum Test	Dunnett Multiple Comparison Test	N/A	ICp							

RESULTS

Ceriodaphnia dubia Test Results

Test results for the *Ceriodaphnia dubia* are summarized in Table 2 and provided on the data sheets located in Appendix 2. Survival was 100% in the 100% effluent and was 100% in the remaining effluent concentrations. Control survival was 90%. No statistically significant lethality was measured in any effluent concentration when compared to the control. The NOEL (No Observed Effect Level) for lethality was 100% and the LC₂₅ (Lethal Concentration 25) for lethality was >100%.

Average number of neonates was 19.8 in the 100% effluent concentration and ranged from 19.6 - 21.6 in the remaining effluent concentrations. Average number of neonates in the control was 20.4 for statistical analyses and test acceptability criteria. No statistically significant differences in the number of neonates were found between the control and any effluent concentration. The NOEL for reproduction was 100% and the IC₂₅ (Inhibition Concentration 25) for reproduction was >100%.

	Percent	Mean			Significant	t Difference
Concentration	Survival	Neonates	Min.	Max.	Lethality	Reprod.
Control (0%)	90	20.4	2	33		
13%	100	20.5	11	29		
26%	100	19.9	9	27		
52%	100	21.6	15	26		
76%	100	19.6	10	26		
100%	100	19.8	8	30		

Table 2. Summary of *Ceriodaphnia dubia* test results. An asterisk (*) denotes a statistically significant difference from the control.

Fathead Minnow Test Results

Fathead minnow results are summarized in Table 3 and are provided on data sheets in Appendix 3. Survival was 98% in the 100% effluent concentration and ranged from 98% - 100% in the remaining effluent concentrations. Control survival was 100%. No statistically significant lethality was measured in any effluent concentration when compared to the control. The NOEL for lethality was 100% and the LC₂₅ for lethality was >100%.

Average weight in the 100% effluent concentration was 0.412mg and ranged from 0.366mg - 0.386mg per individual in the remaining effluent concentrations. Average weight for the control fish was 0.369mg for statistical analyses and test acceptability criteria. No statistically significant differences for growth were measured in any effluent concentration when compared to the control. The NOEL for growth was 100% and the IC₂₅ for growth was >100%.

	Percent	Average			Significant	Difference
Concentration	Survival	Weight (mg)	Min.	Max.	Lethality	Growth
Control (0%)	100	0.369	0.339	0.413		
13%	98	0.384	0.354	0.412		
26%	98	0.386	0.365	0.406		
52%	100	0.366	0.327	0.391		
76%	100	0.374	0.356	0.405		
100%	98	0.412	0.383	0.448		

Table 3. Summary of fathead minnow test results. An asterisk (*) denotes a statistically	,
significant difference from the control.	

Test Acceptability

Acceptable control survival (80%) was achieved in both tests. Similarly, *Ceriodaphnia dubia* reproduction (average 15 neonates/organism) and fathead minnow growth (average 0.250mg/test container) in control organisms met required levels. PMSD was within the required limits for an acceptable test (Table 4).

Table 4. PMSD for chronic test parameters.

	fathead min	now growth	C. dubia reproduction					
_	Lower bound Upper bound		Lower bound	Upper bound 47				
PMSD	12	30	13	47				
(% Minimum significant difference)	12	.9	33	.3				

DISCUSSION

A failed test for this discharge occurs when there is an NOEL or IC_{25} less than the IWC (Instream Waste Concentration) of 52%. The NOEL represents the highest effluent concentration at which no statistically significant effect is observed. The IC_{25} represents an estimate of the effluent concentration that would cause a 25 percent reduction of a non-quantal biological measurement. A violation for this discharge occurs when both the NOEL and the IC_{25} are less than the IWC. Since neither test species demonstrated statistically significant differences meeting these criteria, the discharge passes WET testing requirements for this sampling period.

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- 3. USEPA. 2002. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. EPA-821-R-02-013. 335 pp.
- 4. CDPHE (Colorado Department of Public Health and Environment). 1998. Laboratory Guidelines for Conducting Whole Effluent Toxicity Tests. Water Quality Control Division.
- 5. USEPA. 2000. Method of Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136). EPA/821/B-00/004.
- 6. USEPA. 2000. Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications under the National Pollutant Discharge Elimination System Program. EPA/833/R-00/003.

Appendix 1 - Chain of Custody with Sample Receipt Forms

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	əmuloV lstoT	2	7					(MC				
	Number of Containers	N						Other (List Below)				Date/Time
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applicable)	Other Analysis (List Below)							Daphnia pulex			Rece	
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all applicable)	Coliform (Total/Fecal/E-Coli) (Circ											ature
all	Oil and Grease											Signature
heck	Chromium III/VI (Circle)							nagn				
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							I	nia			Relinquished By (2)	
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	SII52 SII52 Callewine Lab ID I Lab ID I Lab ID	123						Fat	tion	11		Date/Time
	(e) (= = = =				-			Test Species: A Fathead Minnow	Special Instructions/Comments:	outh	(E)	
	Grab/ Grab/ Comp	Comp						pecie	al In	t	Received By (1)	
	a co a	9						est S	peci	Q	ceiv	
	Time	8									Re	d
	Time	0000							6-9 Day	1-2 Day		e
S				-		-		-	l °	1		Signature
1 3	the second secon	101 10 (22						ents			-	
RI	adrii 227 227 227 Date	2/01				ŝ.		Conly)	'	1		123
WS WS	28. 11/2	2			_			equi	-		E	Date/Time 10/10/22
200		T						tical Te	days	te:	By	Da C
Client/Project Name: 角Mアエ P. O./Project Number: Sen しいう	Contact: Julio Madrid Address: P.O. BOX 310 S Phone # 719-379-0827 E Fax # N/A Report By: Mail DPF Sample Location or ID Date	Test						Turnaround Requirements (Analytical Testing Only)	Standard (10 days)	3-5 Day Requested Report Date:	Relinquished By (1)	(I
Ct N	Cat D C	F						Turn	ndard	3-5 Day ed Repor	Inbu	C 3
^o roje oject		Wieit							Star	3-5 ted R	Reli	12 Cerno
ent/F	Contact: Con	1.6								Inest		Signature
P. CI	Conta Addre Phone Fax # Repor Sam	Z								Red	100	is a

SeaCrest Group Louisville, CO

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Sample Receipt Form

Form #: 42 Effective: January 2022

Project # 422 492.6		Sample	# :	١	
Date: 10/10/22		Initials:	U	R	-
Samples Were:					
1. FedEx UPS Notes:	Courier	Hand De	livery	(circle or	ie)
2. Chilled to Ship			Ambient	t Chilled	
3. Cooler Received Broken or Leaking Notes:			Y	N	NA
4. Sample Received Broken or Leaking Notes:			Y	N	
5. Received Within 36hr Holding Time Notes:			$\widehat{\mathbb{V}}$	N	
6. Aeration necessary			Y	N	
7. pH adjustment necessary			Y	N	
8. Sample Received at Temperature bet Notes: Same day Samp			Y	Ν	NA
9. Description of Sample (Color, Odor, a Effluent: dicer, no visi		f Particulate	Matter):		
Receiving: N/A				\bigcirc	
Presence of native species:			Υ (N	
Lab # Temp D.O. pH	Cond				
422492.131 5.90 7.4 7.8	277				
Custody Seals:					
1. Present on Outer Package	Y	N			
2. Unbroken on Outer Package	Ø	N	NA		
3. Present on Sample	Y	N			
4. Unbroken on Sample	Y	N	NA		
Custody Documentation (Chain of Cus	stody):				
1. Present Upon Receipt of Sample	Y	Ν			

Observationgood water Mru, power on to Sempler, Seemple contalner on Me Observationgood water them, sources to 5 augher, bample container on ICC Observation good water flow, power on to SAmpler, SAmple Contriner on ice Observation good Water Flow, Power on to Sampler, Sample Container on ice Observation good water flow, prover on to Sampler, Sample Contriner on ice Observation good water flow, Power on to Sampler, Sample Contriner on ic ~6 Hour Time 1200 Observation good water Word payoer on to Sample Cintalner ~3 Hour Time 0900 Observation good water Mond, struge on to Sampler, Sample Conte gallons N Sampling Personnel: A. Taulor, R. Lurevo, S. Maestes, D. Carino Volume sent to lab Date 10/10/22 Circle One: [M/W F minutes 01 Freatment System Flow Rate 540 GPM m per gallons Start Sample Program: Time 0600 End Sample Program: Time 0600 001 7 区 Samples packed on ice Total Volume Collected SCO Sampling Schedule -24 Hour Time 0600 BmRt Delivered ~21 Hour Time 0300 ~18 Hour Time 2400 ~15 Hour Time 2100 ~12 Hour Time 1800 ~9 Hour Time 1500 Completed COC To day ship site Cooler Sealed

Battle Mountain Gold Mine NPDES WET Test Log

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applicable)				rcle)	ic) ad	BOD/CC									Daphnia pulex			6	-
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-			(^	vola	(List B	Metals												a ho	
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		2	Neumon	0,6		Lab ID (MB Use Only)	2.# 8. 26424								Kethead Minnow	Is/Co	- 001		Date/Time
		81157	Na	1		<u>ق</u> رت	4224								X Fat	Iction			Date/Time
			E-Mail David Carino @	S Parin		Grab/ Comp	Comp								Test Species:	Special Instructions/Comments:	outfal	Bv (1	
		20	sui	57		S G	C								Spec	cial I	uti	Received Bv (1	5
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Client/Project Name: BMRT	P. O./Project Number: San Luis Contact: Tilio Modrid	Address: P.O. BOX 310	Phone # 719-379-0827		Report By:	Sample Location or ID	W.E.T. Test									St	μ.	Kequested Keport Date: Relinquished B	ure 1
Clien	P. 0./	Addre	hon	Fax #	Sepor	Sar	N.											fedu	Signature

SeaCrest Group Louisville, CO

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Sample Receipt Form

Project #	422 4	92.B				Samp	le #:	2	
Date:		1222			_	Initials	s:	DT	
Samples	Were:								
1. FedEx	Notes:	UPS		Courier		Hand	Delivery) (circl	e one)
2. Chilled	to Ship						Amb	ient Chille	ed
3. Cooler	Received Notes:	Broken or	Leaking				Y	N	NA
4. Sample	e Received Notes:	d Broken o	r Leaking				Y	N	
5. Receive	ed Within Notes:	36hr Holdi	ng Time				Y	Ν	
6. Aeratio	n necessa	ary					Y	N	
7. pH adju	ustment ne	ecessary					Y	N	
8. Sample		d at Tempe iame day			6° C .		Y	N	NA
9. Descrip		mple (Colo clear , ho			esence c	of Particul	ate Matte	er):	
		of native s	pecies:				Y	N	
Lab #	Temp	D.O.	рН	Cond					
492.B#Z	8.2°C	7.4	7.6	229	-				
Custody	Seals:								
1. Present		Package			Y	N			
		er Package	9		Y	N	NA		
3. Present		-			Y	N			
4. Unbrok					Y	N	NA		
		tation (Ch ceipt of Sa		ustody):	Ŷ	N			

Battle Mountain Gold Mine NPDES WET Test Log

Observation good whater flow Priver on to Sampler, Sample Cantainer on ice ~6 Hour Time (200 Observationgood water More, Jones on to Somple, Sample Contan er on ICE Observation good wester flows for to Sample, Sample Conferrar on 120 ~9 Hour Time 1500 Observationgood water Mous former on to Sample, Sample into her on ice Observation gourd Water Plan, Power on to Sampler, Sample Container on ice Observation gou'd water flow, Rower in to Sampler, Sample Container on ice Observation goild whether flow, Parvier on to Sangles, Sample Container on ice ~3 Hour Time 0900 Observation good water Mon, Jourer on to Sampler, Sample Container on gallons LUCEVO Volume sent to lab A. Taylor, D. Carino, S. Marstas, K. Date 10/12/22 Circle One: M WF minutes 01 freatment System Flow Rate 540 GPM m per gallons End Sample Program: Time Olov 00 Total Volume Collécted 4 BMRI Delivered A Start Sample Program: Time -24 Hour Time 0600 -21 Hour Time 0300 Samples packed on ice SCO Sampling Schedule ~18 Hour Time 2400 ~12 Hour Time 1800 ~15 Hour Time 2100 Sampling Personnel: Completed COC tio di voit sit Cooler Sealed

(303) bb1.9324 - FAX (303) 661.9325 applicable)	,			sıəu			nədmuN oV lstoT	-							Other (List Below)					Time
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	(M	Belo	eteoi	ipul)	rated	อเอวว	A :T3W								Ceri				Re	
		(MO	ol98 e	etecit	oul) o	hroni	MET: C	X									20			Signature
		(^	voles	a 916.	oipul)	cnte	WET: A	m							Mour	lents	0018			Sign
				tra	mo			2.8 #3							Test Species: A Fathead Minnow	Special Instructions/Comments:	0			Ν,
			8115	Name	1	9	Lab ID (LAB USE ONLY)	422492.8							athea	o/suo	1			Date/Time
			8	e de	Parin										-X	uctio	12		=	Date
			0	E-Mail David Cerino @	0	1	Grab/ Comp	COMP	•						cies:	Instr	outfai		Received By (1)	
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			Lu	aun	Sampler: ()auid	FAX	Time	0000								6-9 Day	1-2 Day			J. Thornton
	10		4	Aail	nplei										_	6-9	_ 1-2			Signature
	in-	7	San	2	Sar			10/14/22							Its					Sign
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t Nar	Num	Julio	P.O. BOX 310	719-379-0827	4	D.	atio	1-							Turnaround Requirements (Analytical Testing Only)	Standard (10 days)	ye	port	Relinquished By (1)	O
ojec	ject	1			N	÷	e Loc	F							F	Stand	3-5 Day	d Re	Relin	8
Client/Project Name: BMRT	P. O./Project Number: San Lui'S	Contact:	Address:	Phone #	#	Report By:	Sample Location or ID	W.E.T.										Requested Report Date:		ignature
Clie	P. O	Con	Add	Pho	Fax #	Rep	Sa	3										Reg		Signature

SeaCrest Group Louisville, CO

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Sample Receipt Form

Project #	422 49	2.8#3				Sample	#: 3	5	
Date:	11.11	2				Initials:	67.	N/	
Samples									
1. FedEx	Notes:	UPS		Courier		Hand De	elivery	(circle	one)
2. Chilled	to Ship						Ambier	nt Chilled	\supset
3. Cooler	Received Notes:	Broken or	Leaking				Y		NA
4. Sample	e Received Notes:	Broken or	Leaking				Y		
5. Receive	ed Within 3 Notes:	36hr Holdir	ng Time				Ø	Ν	
6. Aeratio	n necessa	ry					Y	N	
7. pH adju	ustment ne	cessary					Y	N	
	e Received Notes:	at Tempe	rature be	tween 0-6°	С.		Y	Ν	NA
9. Descrip	Effluent:	Clear, M	r, Odor, a visible	and/or Pres	ence of	Particulate	e Matter)	:	
	Receiving Presence	of native s	pecies:				Y	N	
Lab #	Temp	D.O.	рН	Cond					
492#3	8.1°C	8.1	7.8	230					
Custody	Seals:								
	t on Outer	Package		6	0	N			
		er Package	9	6	ð	N	NA		
	t on Samp	•		1	((N			
	en on Sam			١	(N	NA		
-		tation (Cha		- /	D	N			

Battle Mountain Gold Mine NPDES WET Test Log

Observationgood water flow, power onto Sampler, Sample Container D'nice Observation good weder flow, souser on the Sumpley, Sample Container on ree KA Contalher on ice n're Observation quarker flow, power on to sompler, sungle container on ice Observation good water flow, partiente Sampler, Sample Contrainer on ice ~6 Hour Time 1200 Observation and water flow, priver on to Sampler, Semple container on ~3 Hour Time 0900 Observation good water Money power on to Sampler Sample untaner on Observation good who feer floid, sew on to Sampler, Sample Contrainer on ice Contacts Lab: \$03-794-8976(Henry Latimer) gallons Observationgood water May power on to Sampler, Sample 2 Volume sent to lab A. Taylor, S. Marstas, R. Lucero, D. Carino Date 10/14/22 Circle One: M WE minutes 20 freatment System Flow Rate 540 GPM m per gallons 0600 Start Sample Program: Time 0600 Total Volume Collected 4 区 Samples packed on ice A End Sample Program: Time_ ~21 Hour Time 0300 -24 Hour Time 0600 SCO Sampling Schedule ~9 Hour Time 1500 ~18 Hour Time 2400 ~12 Hour Time 1800 ~15 Hour Time 2160 BMRS Delivered Sampling Personnel: Completed COC Cooler Sealed

Appendix 2 – Data Sheets for the Ceriodaphnia dubia Test

WET TEST REPORT FORM – CHRONIC

Permittee:	Battle Mount	tain Resources, Inc	
Permit No.:	CO-0045675		
Outfall:	001B – IWC	: 52%	
Test Type:	Routine 🖂	Accelerated 🗌	Screen 🗌
Test Species:	Ceriodaphnia	a dubia	

Test Start Time	Test Start Date	Test End Time	Test End Date
1430	10-10-2022	1400	10-16-2022

Test Results	Lethality/TCP3B	Reproduction/TKP3B
S code: NOEL	100%	100%
	PASS	PASS
P code: LC ₂₅ /IC ₂₅	>100%	>100%
	PASS	PASS
T code:	>100%	>100%

Test Summary

Measurements	Control (0%)	13%	26%	52%	76%	100%
Exposed organisms	10	10	10	10	10	10
Survival for day 1	10	10	10	10	10	10
Survival for day 2	10	10	10	10	10	10
Survival for day 3	10	10	10	10	10	10
Survival for day 4	10	10	10	10	10	10
Survival for day 5	9	10	10	10	10	10
Survival for day 6	9	10	10	10	10	10
Mean 3 Brood Total	20.4	20.5	19.9	21.6	19.6	19.8
ness (mg/L) – Receiv inity (mg/L) – Receiv	-		Effluent: 5 Effluent: 2			con Water: 9 con Water: 6

Alkalinity (mg/L) - Receiving Water: N/AEffluent: 20/11/16Recon Water:Chlorine (mg/L) - Effluent: <0.01</td>pH (initial/final) - Control: 8.2/8.1100%: 7.9/7.9Total Ammonia as NH3 (mg/L) - Effluent: 0.03/<0.03/<0.03</td>100%: 7.9/7.9

Were all Test Conditions in Conformance with Division Guidelines? YES \boxtimes NO \square If **NO**, list deviations from test specifications: N/A

Laboratory: SeaCrest Group

Comments:

Analyst's Name: Lindsay Rutherford, Daniela Thornton, and Jason Nelson

Date OCTODEN 21, 2022 Signature

SeaCrest Group

Ceriodaphnia Chronic Benchsheet

SeaCrest Group Louisville, CO

Permittee:	RM	RI		1	ab #: 422	492.B	Site:	0010	5
	51	Tompl	ato # 5	Dilution	Nater: MH	122-20 5	Sample Date:	10102	2
WC %:	02	Tempi	ate #	Test	Start: 1010	172 IN 31	Test End:	1011022	1400
Age & Sour	ce:	101022 5	5126	Test	Start. 1010	022 143	•	1010	
Test Condi									
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0	0	0	0	6	5,	10	9		23
	0	0	0	d	4	8	9		26
	0	0	0	2	6	9	10		23
	0	0	0	-	3	10	12		33
	0	0	0	12:45	20119	10 162	6.9		
DO	7.1	6.6 7.0	6.6 0.0	244260	ny 4 25 2	24.8 24.1	24.9		20.4
Temp	25.6	24.5 20.3	7.8 7.8	19 8.0	79 8.1	80 8.2	8.1		00.9
pH	8,2 348	7.8 8.1	344	333	355	327			
Cond	0	0	0	3	4	7	13		27
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	0	0	0	1	7	9	12		29
	0	0	0	i	6	8	0		20
13	0	0	0	7	5	8	13		14
	0	0	0	6	4	6	14		22
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Temp	23.60	2451253	24.3 23.4	24.4.60	14 8.1	7.9 82	81		10.5
pH	8.2	7.8 0.1	350	314	314	223		Sant & Shines	
Cond	353	0	0	5	A'3	8	()		27
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	0	0	0	3	2	8	10		14
	0	0	0	1	4	9	0		14
26	0	0	0	2	4	6	0		21
~	0	0	0	2	10	9	0		23
	0	0	0		4	8	9		22
	0	0	0		17	6	11		21
	0	0	0	6.7.6.8	20 24	7.0 7.0	6.9		.0.0
DO	7.1	6.1 7.4	6.6 7.5	24.4 751			24.9		19.9
Temp pH	25.6	1.8 8.1	7.8 8.0	7.8 8,0	7.7 8.0	7.8 8.1	8.0		
Cond	8.1 346		317	310	311	320		1. 2010年1月1日日	24
(3)	0	0	0	2	7	9	8		26
101	0	0	0	0	3	7	9		23
	0	0	0		4	6	12		15
	0	0	0	2	1	6	10		210
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52	0	0	0	9		8	8		20
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	0	0	0	0	1 7	9	9		24
	0	0	6.6 12.7	6.9 6.9	2.0 2.6	7.1 7.1	7.0		
DO	1.2	24.5 25.3					24.9		21.6
Temp	_					7.7 8.0			111
pH	8.0		328	\$23	321	313		治 的温泉器以()	建立

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Ceriodaphnia Chronic Benchsheet

SeaCrest Group Louisville, CO

	0	1	2	3	4	5	6	7	Total
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	0	0	0	0	1+3	0	6		10
DO	1.2	68 7.8	6.6 7.8	6.7 7.3	2.0 7.7	¥.1 17.2	7.01		
Temp	25.6	24.5 25.3	24.3 25.4	24.4 25.0	24.4:05.2	24.8 241	24.1		19.6
pH	8.0	1.1 1.9	7.8 7.9	7.8 7.9	7.7 7.9	848 7.9	7.9		11.4
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DO	1.2	68 8.0	6.2 8.0	6.7. 7.4	7.0 7.8	7.1 7.3	7.01		
Temp	25.6	24.5 25.3			24.4 25.2	24.8 24.1	24.1	1	19.8
pH	1.9	7.1 7.8	4.8 7.8		17 77	75 77	7.9		11.0
Cond	271	270	261	203	1.219	240	1.1.		
Algae	ABS	A133	ABS	ABS	ABS	ABS		And the second second second	in states of
YCT	2201	2201	2207	2207	2207	2207			
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		Eff #1		#2	Eff		Rec	con	
lardness	5	5	1	9	1		90		1
Alkalinity	2	7	11		1	/	101		1
Chlorine	60	.01	40	.01	10	.01	lo	10.	1
Ammonia	D.	03		.03		.03		.03	1

Exposure Chamber: Total Capacity: 30mL Total Solution Volume: 15mL

Comments:

Feeding Schedule: Fed daily Food used: YCT, Algae

Units:

DO: mg/L Hardness: mg/L Temp: °C Alkalinity: mg/L pH: N/A Chlorine: mg/L Cond: μS/cm³ Ammonia: mg/L

Active and mobile

x:y:z = board #:row:column

1	2	3	4	5	6	7	8	9	10
B8	1310	C3	C5	Cle	C8	C٩	DI	DZ	D3

CETIS Ana	alyti	ical Rep	ort								ort Dat				22 09:40 (p 1 of 1 CD / 11-9959-029
Ceriodaphnia	a 7-d	Survival an	d Reproc	luction Te	est										SeaCrest Group
Analysis ID:	02-7	7055-8759	E	ndpoint:	7d	Survival Rat	e			CET	S Vers	ion:	CETIS	/1.9.6	
Analyzed:	17 (Oct-22 9:40	A	nalysis:	ST	P 2xK Conti	ngency Tab	les		Statu	is Leve	el:	1		
Batch ID:	09-8	3929-4736	Te	est Type:	Rep	production-S	Survival (7d)			Anal	yst:	Lab	Tech		
Start Date:	10 0	Oct-22	P	rotocol:	EP	A/821/R-02-	013 (2002)			Dilue	ent:	Reco	nstituted	Water	
Ending Date:	16 0	Oct-22	S	pecies:	Cer	iodaphnia d	ubia			Brine	e:	Not A	Applicable		
Test Length:	6d	Oh	Та	axon:	Bra	nchiopoda				Sour	ce:	In-Ho	ouse Cult	ure	Age:
Sample ID:	09-0	0129-7377	C	ode:	422	492.B				Proje	ect:	WET	Quarter	y Com	pliance Test (4Q)
Sample Date:	10 0	Oct-22	M	aterial:	PO	TW Effluent				Sour	ce:	NPD	ES Perm	it # (X)	(99999999)
Receipt Date:	10 0	Oct-22	C	AS (PC):						Stati	on:	001B	1		
Sample Age:	n/a		CI	ient:	BM	RI									
Data Transfor	m		Alt Hyp						NOE	L	LOEL		TOEL	TU	
Untransformed	ł		C > T					3	100		>100		n/a	1	
Fisher Exact/I	Bonf	erroni-Holn	n Test												
Control	vs	Group		Test S	itat	P-Type	P-Value	Decision	(a:5%)						
Dilution Water		13		1.0000)	Exact	1.0000	Non-Sign	ificant E	Effect					
		26		1.0000)	Exact	1.0000	Non-Sign	ificant E	Effect					
		52		1.0000)	Exact	1.0000	Non-Sign	ificant E	Effect					
		76		1.0000)	Exact	1.0000	Non-Sign	ificant E	Effect					
		100		1.0000)	Exact	1.0000	Non-Sign	ificant E	Effect					
Data Summar	у														
Conc-%		Code	NR	R		NR + R	Prop NR	Prop R	%Eff	ect					
0		D	9	1		10	0.9	0.1	0.0%	,					
13			10	0		10	1	0	-11.1	1%					
26			10	0		10	1	0	-11.1	1%					
52			10	0		10	1	0	-11.1	1%					
76			10	0		10	1	0	-11.1	1%					
100			10	0		10	1	0	-11.1	1%					

Analyst: M QA: HW

CETIS	S Ana	lytical Repo	ort						Report Dat Test Code			2 09:40 (p 1 of 2 CD / 11-9959-029
Ceriod	laphnia	7-d Survival an	d Rep	orodu	ction T	est						SeaCrest Group
Analys	is ID:	12-3366-0284		End	point:	7d Survival Rat	e		CETIS Ver	sion:	CETISv1.9.6	
Analyz	ed:	17 Oct-22 9:40		Ana	lysis:	Linear Interpola	ation (ICPIN)		Status Lev	el:	1	
Batch I	ID:	09-8929-4736		Tes	t Type:	Reproduction-S	Survival (7d)		Analyst:	Lab	Tech	
Start D	ate:	10 Oct-22		Prot	tocol:	EPA/821/R-02-	013 (2002)		Diluent:	Reco	onstituted Water	
Ending	Date:	16 Oct-22		Spe	cies:	Ceriodaphnia d	ubia		Brine:	Not	Applicable	
Test Le	ength:	6d 0h		Tax	on:	Branchiopoda			Source:	In-H	ouse Culture	Age:
Sample	e ID:	09-0129-7377		Cod	e:	422492.B			Project:	WET	Quarterly Comp	pliance Test (4Q)
Sample	e Date:	10 Oct-22		Mat	erial:	POTW Effluent			Source:	NPD	ES Permit # (XX	99999999)
Receip	t Date:	10 Oct-22		CAS	(PC):				Station:	001E	3	
Sample	e Age:	n/a		Clie	nt:	BMRI						
Linear	Interpo	lation Options										
X Trans	sform	Y Transform	r i	See	d	Resamples	Exp 95% CL	Method				
Linear		Linear		5957	771	1000	Yes	Two-Point	Interpolation	5		
Point E	stimate	es										
Level	%	95% LCL	95%	UCL	τU	95% LCL	95% UCL					
LC5	>100	n/a	n/a		<1	n/a	n/a					

LC5	>100	n/a	n/a	<1	n/a	n/a	
LC10	>100	n/a	n/a	<1	n/a	n/a	
LC15	>100	n/a	n/a	<1	n/a	n/a	
LC20	>100	n/a	n/a	<1	n/a	n/a	
LC25	>100	n/a	n/a	<1	n/a	n/a	
LC40	>100	n/a	n/a	<1	n/a	n/a	
LC50	>100	n/a	n/a	<1	n/a	n/a	

7d Survival Rate Summary					Calc	ulated Varia	te(A/B)			ic Variate	
Conc-%	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	A/B	Mean	%Effect
0	D	10	0.9000	0.0000	1.0000	0.3162	35.14%	0.0%	9/10	0.9833	0.0%
13		10	1.0000	1.0000	1.0000	0.0000	0.00%	-11.11%	10/10	0.9833	0.0%
26		10	1.0000	1.0000	1.0000	0.0000	0.00%	-11.11%	10/10	0.9833	0.0%
52		10	1.0000	1.0000	1.0000	0.0000	0.00%	-11.11%	10/10	0.9833	0.0%
76		10	1.0000	1.0000	1.0000	0.0000	0.00%	-11.11%	10/10	0.9833	0.0%
100		10	1.0000	1.0000	1.0000	0.0000	0.00%	-11.11%	10/10	0.9833	0.0%

Analyst: M QA: HW

Analyzed:17Batch ID:09Start Date:10Ending Date:16Test Length:6d	6-3271-4535 7 Oct-22 9:40 9-8929-4736 0 Oct-22 6 Oct-22 d Oh 9-0129-7377 0 Oct-22 0 Oct-22 /a e Comparisor	Enc Ana Tes Pro Spe Tax Coc Mat CAS Clie Alt Hyp C > T	dpoint: F alysis: F tocol: E ecies: C toon: B de: 4 terial: F S (PC): ent: B Test Sta	Reproduction Parametric-Con Reproduction-S EPA/821/R-02- Ceriodaphnia d Branchiopoda 122492.B POTW Effluent BMRI	Survival (7c -013 (2002) Iubia	I)	ments		ent: R e: N rce: Ir ect: V rce: N		1.9.6 Water re Compliance	
Analyzed: 17 Batch ID: 09 Start Date: 10 Ending Date: 16 Test Length: 6d Sample ID: 09 Sample ID: 09 Sample Date: 10 Receipt Date: 10 Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water Valer	7 Oct-22 9:40 9-8929-4736 0 Oct-22 6 Oct-22 d 0h 9-0129-7377 0 Oct-22 0 Oct-22 /a e Comparisor Conc-% 13	Ana Tes Pro Spe Tax Coo Mat CAS Clie Alt Hyp C > T	Alysis: F alysis: F at Type: F tocol: E con: B de: 4 terial: P S (PC): ent: B Test Sta	Parametric-Con Reproduction-S EPA/821/R-02- Ceriodaphnia d Branchiopoda 22492.B POTW Effluent BMRI	Survival (7c -013 (2002) Iubia	I)	ments	State Anal Dilue Brin Sour Proje Sour State	us Level: yst: L ent: R e: N rce: Ir ect: V rce: N on: 0 LOEL	1 ab Tech Reconstituted N Iot Applicable n-House Cultu VET Quarterly IPDES Permit 01B TOEL	Water re Compliance # (XX99999 TU	e Test (4Q) 9999) PMSD
Batch ID: 09 Start Date: 10 Ending Date: 16 Test Length: 6d Sample ID: 09 Sample Date: 10 Receipt Date: 10 Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water	9-8929-4736 0 Oct-22 6 Oct-22 d 0h 9-0129-7377 0 Oct-22 0 Oct-22 /a e Comparisor Conc-% 13	Tes Pro Spe Tax Coo Mat CAS Clie Alt Hyp C > T	t Type: F tocol: E ecies: C ton: B de: 4 terial: P S (PC): ent: B Test Sta	Reproduction-S EPA/821/R-02- Ceriodaphnia d Branchiopoda 22492.B POTW Effluent BMRI	Survival (7c -013 (2002) Iubia	I)	ments	Anal Dilud Brin Sour Proje Sour Stati	yst: L ent: R e: N rce: Ir ect: V rce: N on: 0 LOEL	ab Tech Reconstituted N Iot Applicable n-House Cultu VET Quarterly IPDES Permit 01B TOEL	re Compliance # (XX99999 TU	e Test (4Q) 9999) PMSD
Start Date: 10 Ending Date: 16 Test Length: 6d Sample ID: 09 Sample Date: 10 Receipt Date: 10 Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water Vale	0 Oct-22 6 Oct-22 d 0h 9-0129-7377 0 Oct-22 0 Oct-22 /a e Comparisor Conc-% 13	Pro Spe Tax Coc Mat CAS Clie Alt Hyp C > T	tocol: E ecies: C ton: B de: 4 terial: P S (PC): ent: B Test Sta	EPA/821/R-02- Ceriodaphnia d Branchiopoda 22492.B POTW Effluent BMRI	-013 (2002) Iubia			Dilue Brin Sour Proje Sour Stati	ent: R e: N rce: Ir ect: V rce: N on: 0 LOEL	Reconstituted V lot Applicable n-House Cultu VET Quarterly IPDES Permit 01B TOEL	re Compliance # (XX99999 TU	e Test (4Q) 9999) PMSD
Ending Date: 16 Test Length: 6d Sample ID: 09 Sample Date: 10 Receipt Date: 10 Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water	6 Oct-22 d 0h 9-0129-7377 0 Oct-22 0 Oct-22 /a e Comparisor Conc-% 13	Spe Tax Coo Mat CAS Clie Alt Hyp C > T	ecies: C con: B de: 4 terial: P S (PC): ent: B Test Sta	Ceriodaphnia d Branchiopoda 22492.B POTW Effluent BMRI	lubia)		Brin Sour Proje Sour Stati	e: N rce: Ir ect: V rce: N on: 0	lot Applicable n-House Cultu VET Quarterly IPDES Permit 01B TOEL	re Compliance # (XX99999 TU	e Test (4Q) 9999) PMSD
Test Length: 6d Sample ID: 09 Sample Date: 10 Receipt Date: 10 Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water	d 0h 9-0129-7377 0 Oct-22 0 Oct-22 //a e Comparisor Conc-% 13	Tax Coo Mat CAS Clie Alt Hyp C > T	terial: P S (PC): ent: B	Branchiopoda 22492.B POTW Effluent BMRI				Sour Proju Sour Stati NOEL	rce: Ir ect: W rce: N on: 0 LOEL	n-House Cultu VET Quarterly IPDES Permit 01B TOEL	Compliance # (XX999999 TU	e Test (4Q) 9999) PMSD
Sample ID: 09 Sample Date: 10 Receipt Date: 10 Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water	9-0129-7377 0 Oct-22 0 Oct-22 /a e Comparisor Conc-% 13	Coc Mat CAS Clie Alt Hyp C > T	de: 4 terial: P S (PC): ent: B Test Sta	22492.B POTW Effluent	t 			Proje Sour Stati NOEL	ect: V rce: N on: 0 LOEL	VET Quarterly IPDES Permit 01B TOEL	Compliance # (XX999999 TU	e Test (4Q) 9999) PMSD
Sample Date: 10 Receipt Date: 10 Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water	0 Oct-22 0 Oct-22 /a e Comparisor Conc-% 13	Mat CAS Clie Alt Hyp C > T	terial: P S (PC): ent: B Test Sta	POTW Effluent				Sour Stati NOEL	rce: N on: 0 LOEL	IPDES Permit 01B TOEL	# (XX999999 TU	9999) PMSD
Receipt Date: 10 Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water	0 Oct-22 /a e Comparisor Conc-% 13	CAS Clie Alt Hyp C > T	S (PC): ent: B Test Sta	BMRI	l 			Stati NOEL	on: 0 LOEL	01B TOEL	TU	PMSD
Sample Age: n/a Data Transform Untransformed Dunnett Multiple Control vs Dilution Water	e Comparisor Conc-% 13	Clie Alt Hyp C > T	ent: B Test Sta					NOEL	LOEL	TOEL		
Data Transform Untransformed Dunnett Multiple Control vs Dilution Water	e Comparisor Conc-% 13	Alt Hyp C > T	Test Sta									
Untransformed Dunnett Multiple Control vs Dilution Water	e Comparisor Conc-% 13	C > T		at Critical								
Dunnett Multiple Control vs Dilution Water	Conc-% 13			at Critical				100	>100	n/a	1	33.32%
Control vs Dilution Water	Conc-% 13	Test		at Critical								
Dilution Water	13			at Critical								
					MSD D	F	P-Type	P-Value	Decisio	on(a:5%)		
ANOVA Table	26		-0.03368	8 2.289	6.797 1	8 (CDF	0.8432	Non-Sig	gnificant Effec	t	
ANOVA Table			0.1684	2.289	6.797 1	8 (CDF	0.7785	Non-Sig	gnificant Effec	t	
ANOVA Table	52		-0.4042	2.289	6.797 1	8 (CDF	0.9262	Non-Sig	gnificant Effec	t	
ANOVA Table	76		0.2694	2.289	6.797 1	8 (CDF	0.7413	Non-Sig	gnificant Effec	t	
ANOVA Table	100		0.2021	2.289	6.797 1	8 (CDF	0.7664	Non-Sig	gnificant Effec	t	
and the the table												
Source	Sum Squa	ares	Mean S	quare	DF	1	F Stat	P-Value	Decisio	on(a:5%)		
Between	26.4		5.28		5	(0.1198	0.9874	Non-Sig	gnificant Effect	t	
Error	2380.2		44.0778		54	_						
Total	2406.6		_		59	_						
ANOVA Assumpt	otions Tests											
Attribute	Test				Test Stat	t (Critical	P-Value	Decisio	on(α:1%)		
Variance		uality of Va		st	9.482	1	15.09	0.0913	Equal V	/ariances		
Distribution	Shapiro-W	lik W Norm	ality Test		0.9546	(0.9459	0.0258	Normal	Distribution		
Reproduction Su	ummary	•										
Conc-%	Code	Count	Mean	95% LCL		_		Min	Max	Std Err	CV%	%Effect
0	D	10	20.4	13.32	27.48		23	2	33	3.128	48.48%	0.00%
13		10	20.5	16.04	24.96		21	11	29	1.973	30.44%	-0.49%
26		10	19.9	15.83	23.97		21.5	9	27	1.798	28.57%	2.45%
52		10	21.6	19.14	24.06		21.5	15	26	1.087	15.92%	-5.88%
76 100		10 10	19.6 19.8	15.45 14.74	23.75 24.86		21.5 20.5	10 8	26 30	1.833 2.235	29.57% 35.70%	3.92% 2.94%

CETIS	S Ana	alytical Rep	ort						Report Da Test Code				40 (p 2 of 2 1-9959-029
Ceriod	laphnia	7-d Survival an	d Reprod	luction T	est				1			Sea	Crest Group
Analys	sis ID:	12-1254-4511	Er	ndpoint:	Reproduction				CETIS Ve	rsion:	CETISv1.9.6		
Analyz	ed:	17 Oct-22 9:40	Ar	nalysis:	Linear Interpola	ation (ICPIN)		Status Le	vel:	1		
Batch	ID:	09-8929-4736	Те	est Type:	Reproduction-S	Survival (7d)			Analyst:	Lab	Tech		
Start D	Date:	10 Oct-22	Pr	otocol:	EPA/821/R-02-	013 (2002)			Diluent:	Reco	onstituted Wate	r	
Ending	g Date:	16 Oct-22	Sp	pecies:	Ceriodaphnia d	lubia		6	Brine:	Not A	Applicable		
Test Le	ength:	6d Oh	Та	ixon:	Branchiopoda			;	Source:	In-Ho	ouse Culture		Age:
Sample	e ID:	09-0129-7377	Co	ode:	422492.B				Project:	WET	Quarterly Com	plianc	e Test (4Q)
Sample	e Date:	10 Oct-22	Ma	aterial:	POTW Effluent				Source:	NPD	ES Permit # (X	X9999	9999)
Receip	t Date:	10 Oct-22	CA	AS (PC):					Station:	001B			
Sample	e Age:	n/a		ient:	BMRI								
Linear	Interpo	lation Options											
X Tran	sform	Y Transform	n Se	ed	Resamples	Exp 95%	CL Me	ethod					
Linear		Linear	16	60882	1000	Yes	Tw	o-Point In	terpolation	n			
Point E	stimat	es											
Level	%	95% LCL	95% UC	L TU	95% LCL	95% UCL							
IC5	>100	n/a	n/a	<1	n/a	n/a			-				
IC10	>100	n/a	n/a	<1	n/a	n/a							
IC15	>100	n/a	n/a	<1	n/a	n/a							
IC20	>100	n/a	n/a	<1	n/a	n/a							
C25	>100	n/a	n/a	<1	n/a	n/a							
IC40	>100	n/a	n/a	<1	n/a	n/a							
IC50	>100	n/a	n/a	<1	n/a	n/a							
Reprod	duction	Summary				Cal	culated V	/ariate				Isotor	nic Variate
Conc-%	6	Code	Count	Mean	Min	Max	Std Dev	CV%	%Ef	ffect	Me	ean	%Effect
0		D	10	20.4	2	33	9.891	48.48	% 0.0%	6	20	.6	0.0%
13			10	20.5	11	29	6.241	30.44	% -0.4	9%	20	.6	0.0%
26			10	19.9	9	27	5.685	28.57	% 2.45	5%	20	.6	0.0%
52			10	21.6	15	26	3.438	15.92	% -5.8	8%	20	.6	0.0%
76			10	19.6	10	26	5.797	29.57	% 3.92	%	19	.7	4.37%
				1.00			and shared			and a second			

Analyst:_______QA:______

19.7

4.37%

100

10

19.8

8

30

7.068

35.70%

2.94%

Appendix 3 – Data Sheets for the Fathead Minnow Test

WET TEST REPORT FORM – CHRONIC

Permittee:	Battle Mount	tain Resources, Inc	
Permit No.:	CO-0045675		
Outfall:	001B – IWC	: 52%	
Test Type:	Routine 🖂	Accelerated 🗌	Screen 🗌
Test Species:	fathead minn	low	

Test Start Time	Test Start Date	Test End Time	Test End Date
1430	10-10-2022	1330	10-17-2022
Test Results	Lethality/TCP6C		Growth/TKP6C
S code: NOEL	100%		100%
	PASS		PASS
P code: LC ₂₅ /IC ₂₅	>100%		>100%
	PASS		PASS
T code:	>100%		>100%

Test Summary

Measurements	Control (0%)	13%	26%	52%	76%	100%
Exposed organisms	40	40	40	40	40	40
Survival for day 1	40	40	40	40	40	40
Survival for day 2	40	40	39	40	40	39
Survival for day 3	40	40	39	40	40	39
Survival for day 4	40	40	39	40	40	39
Survival for day 5	40	40	39	40	40	39
Survival for day 6	40	39	39	40	40	39
Survival for day 7	40	39	39	40	40	39
Mean Dry Wt. (mg)	0.369	0.384	0.386	0.366	0.374	0.412
ess (mg/L) – Receiv nity (mg/L) – Receiv	-		Effluent: 5 Effluent: 2			Water: 97 Water: 60

Alkalinity (mg/L) - Receiving Water: N/AEffluent: 20/11/16Recon WaterChlorine (mg/L) - Effluent: <0.01</td>pH (initial/final) - Control: 8.3/7.8100%: 7.8/7.1Total Ammonia as NH3 (mg/L) - Effluent: 0.03/<0.03/<0.03</td>0.03/<0.03</td>

Were all Test Conditions in Conformance with Division Guidelines? YES \boxtimes NO \square If <u>NO</u>, list deviations from test specifications: N/A

Laboratory: SeaCrest Group

Comments:

Analyst's Name: Shanna Wepman, Julie McKenney, and Daniela Thornton

October 21, 2022 0 Date Signature

SeaCrest Group Louisville, CO

Fathead Minnow Chronic Benchsheet

Form #: 103a Effective: March 2022

	Ave wt		0.20	-			1.2×U	10.0	_	Γ		0.386		Ι		0.366		T		0.374		Ι	517	2160	_	Ι				Ι	Γ			T			Τ	Τ	
-031	Fish Wt mg	0.339	0.368	0.413	0.356	214.0	0.354		0.3607		0.2015	D. 202		-12 W	SIC	1 2 4	10220	Soc.n	1000 C	0.102	0.276	1.79U	1.02.0		2 44 2							مانو							
MH22	Tare	11521.1	1.15469	1.13145	113211	11751.1	112500	113874	112501	1.11995	117419	1.12800	1.12730	000001	5001×11	112121		120001	01121	0101	1.12162	·	3	10301	1.1017					11590	1111111	active tmobile							
Dilution H ₂ O: ///#22-03	Fish & Tare	12850	15837	13558	13567	1-14 129	12860	14283	12963	12273	1-12807	401111	1-14/11	10000	13992	12112	121001	10101	1.10072	12 1/64	12679	1221-0	NUN 1	12 814	12260	2000				11614		acti							
	1 # 1	1 1# ()		0 #3	0 #4	(0 #5	9 #6	1 44 0	() #8	6#	0 #10	0 #11 1	#12	#13	#14	112	-	#17	+	-	02# 1	1 #21	9 #22	0 #23		#	#	#	#	#		Comments:							
gi	9	10 11	2	õ	1010	10	0	0	010	5 6 0	101	101	101	101	0	1	29		20	+	-	1	0	9	0					pretest		Comr							
Test Co	4 5	10 10	0) (0)	10 10	10 10	0 0	10 10	10 10	10 10	6 6	01 01	10 10	10 10	10 10	-	+	-	1	0	1	0	+	+	10 10	+	⊢							Alk: mo/l	Chlor: ma/L	NH3: mg/L				
11	2 3	10 10	~		0 10	10 10	10 10	10 10	10 10	99	01 01	10 10	10 10	U UI	-	01 01		-				-	-	10 10	-							Units:							
Template:	1	10 0	-	-	10 0	-	10 10	10 10	10 10	10 (C	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10		10 10		10 10	10 f A	10 10	10 16	10	10	10	10				Temn. "C	pH: N/A	Cond: µS/cm ³				
-	2			912	To and the second		_	9.5		5.0	1.45	7.5		15 h		7.4		50	2.72	1.1		5.5	24.2	1.1						30			250 ml	E	6.5 cm		ay	mia	
1	9	6.4 7.0		0.0 0.2	5	1		9 8.3	324		242 24.8	7 8.3	314	1·L S	24.7 24.8	5 31	162	2.6. 2	8 W2 H. H2	1 8.0	270	7 17.2	8.42 h.42	7.7 2	122					info	3		250	50.2 cm	6.5	Schedule	2x per day	<24hr artemia	
s Info: 土井		_	-	9-9	-	-		8-2 7.9	-	_		5.2 77	9	71 5	12 2.52	5.4 0.5	2	2.7. 5	-	7.9.7	. 2	L.1 2.L	12 9-52	1-1 7.	5						-	Exposure Chamber		rea:		Feeding Sch	1	1	
Species Info:	2	5.5	34.6	1.2	2			t.t	317	Si	34.6	7.6	309	5.4	24.6	7.4	295	53		5.5	282	5.3	246	7.1	92					5	3		Volume:	Surface A	constant):	Fe		Used:	
×	4		1.40 2.42	- 5	0	_		5 8.3	363		1.42 2.42	1 82	m	7 7.6		1.8 0	321	8.1 6.5	242 242	P.5 7.9	301	5.9 8.0	24.2 24.5	7.3 7.6	162					W	2	Total Canacitu	Test Solution Volume:	Test Solution Surface Area:	Water Depth (constant):	2		SW Food Used	
- 1330	-		24-10 24		T	2.5 1.1	-	8.2 2.8	9	7.2 58	_	1-1 2.8	-	7.3 5	24.3 2	8.0 7.0	2	2 H.L	24.2 24	7.9 7.		1-10 S.	_	9	129				1	-	-	MIK	Te	Te	W	9	-	SINO	>
101722	2	5.9	1-22	-	10	2.2	1. 1.7	÷		2.8	1.20		_			76	32	1.5	1.42	2.2	299	1.5	1- 12	7.4	2					MD	_	Z RCV 3				5	-	1	>
Test End: \0\722- \330	1		1.1.7 1.1.7	10-0	2			5.2 67	~		5.42 2.42	7.8 8.2	3	5.1 7.0	T-45 E-45	27 8.0	310	0-2 0.5	6- 42 h.42	7.6 7.8	293	9.5 7.0	1.52 1.42	1.5 7.6	112					WP.	-	LICY I LICY Z	-		_	3 4	+	M WO	>
		6.4	22	0.0	001	2.02	35	5.2	0	1.0)	1:12	i'		0.1	1.42		304	-	223	7.9	9	1.2	24.3	7.6	S				-	3	Deces	Le	09		Ÿ	2		C MO	
Test Start: 10/022-1430 Concl Read 0 1 1			4.1	0.0	P			Ŕ	-		_	r	+		2	r	-	2 5H		1.1	5 296		6h2 6.	7.6	2	-	+	-	+	200	C#3 C#3			-	10.02 20.03	-	>0	3	>
Read 0	_	Toma 11 5	PH 43	T	_	1			D	01 00	2		σ	00	đ		σ	DO 7.7	đ	P.7 Hq	Cond 295	1.L 00	9	8.7 Hd	Cond 277	8	Temp	Ha	σ	32 1	+	╋		10.07 10.07		+		SIE	>
Test Start: 7 Conc Read	200		0		Ī		3		Ĩ		76				5,1				4	_			8	_		-1		-1	Initia	SIBUILI	Water #	Hard	_	-	NH ³	Feeding	AM	PM	

CETIS Ana	alytica	I Repo	ort							ort Date: t Code/ID:			:04 (p 1 of 05-8016-94
Fathead Minn	now 7-d	Larval Su	urvival an	d Growth	Test							Sea	Crest Grou
Analysis ID: Analyzed:	08-966 18 Oct-	3-8597 -22 15:04			'd Survival Ra Nonparametric		vs 1	Treatments		'IS Versior tus Level:	n: CETISv 1	1.9.6	
Batch ID:	08-600	0-1971	Те	st Type: (Growth-Surviv	al (7d)	-		Ana	lyst: La	b Tech		
Start Date:	10 Oct-	-22	Pr	otocol: E	PA/821/R-02	-013 (20	02)		Dilu	ent: Re	econstituted	Water	
Ending Date:	17 Oct-	-22	Sp	ecies: F	Pimephales pr	omelas			Brin	e: No	ot Applicable		
Test Length:	7d Oh		Та	xon: A	Actinopterygii				Sou	rce: In-	House Cultu	re	Age:
Sample ID:	01-129	5-1426	Co	de: 4	22492.B				Proj	ect: W	ET Quarterly	Complian	ce Test (4Q
Sample Date:	10 Oct-	22	Ma	terial: F	POTW Effluen	t			Sou	rce: NF	PDES Permit	# (XX9999	99999)
Receipt Date:	10 Oct-	22	CA	S (PC):					Stat	ion: 00	1B		
Sample Age:	n/a		Cli	ent: E	BMRI								
Data Transfor			Alt Hyp						NOEL	LOEL	TOEL	TU	PMSD
Angular (Corre	ected)		C > T						100	>100	n/a	1	6.45%
Steel Many-O	ne Rank	Sum Te	st										
Control	vs (Conc-%		Test St	at Critical	Ties	DF	P-Type	P-Value	Decision	n(a:5%)		
Dilution Water		13		16	10	1	6	CDF	0.6105	Non-Sign	nificant Effect	t	
	2	26		16	10	1	6	CDF	0.6105	Non-Sign	nificant Effect	t	
	5	52		18	10	1	6	CDF	0.8333	Non-Sign	nificant Effec	t	
	7	76		18	10	1	6	CDF	0.8333	Non-Sign	nificant Effec	t	
	1	00		16	10	1	6	CDF	0.6105	Non-Sign	nificant Effec	t	
ANOVA Table													
Source	S	um Squa	res	Mean S	quare	DF		F Stat	P-Value	Decision	n(α:5%)		
Between	0.	0099598		0.00199	2	5		0.6	0.7006	Non-Sigr	nificant Effec	t	
Error	0.	0597585	d	0.00331	99	18		_					
Total	0.	0697182				23							
ANOVA Assum	nptions	Tests											
Attribute	Т	est				Test S	tat	Critical	P-Value	Decision	n(a:1%)		
Variance	B	artlett Equ	ality of Va	ariance Tes	st					Indeterm	inate		
Distribution	S	hapiro-Wi	lk W Norn	nality Test		0.6694	k.	0.884	4.1E-06	Non-Nor	mal Distribut	ion	
7d Survival Ra	ate Sum	mary											
Conc-%	C	ode	Count	Mean	95% LCL	95% U	CL	Median	Min	Max	Std Err	CV%	%Effect
)	D		4	1.0000	1.0000	1.0000)	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
13			4	0.9750	0.8954	1.0000)	1.0000	0.9000	1.0000	0.0250	5.13%	2.50%
26			4	0.9750	0.8954	1.0000		1.0000	0.9000	1.0000	0.0250	5.13%	2.50%
52			4	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
76			4	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
100	12		4	0.9750	0.8954	1.0000		1.0000	0.9000	1.0000	0.0250	5.13%	2.50%
100	T (boto	ransform	ed Sumn	nary									
1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	ecteu) i		Count	Mean	95% LCL	95% U	CL	Median	Min	Max	Std Err	CV%	%Effect
Angular (Corre Conc-%	C		ooune			4 440		1.412	1.412	1.412	0	0.00%	0.00%
Angular (Corre Conc-%			4	1.412	1.412	1.412						0.0070	
Angular (Corre Conc-% D	C				1.412 1.242	1.412		1.412	1.249	1.412	0.04074	5.94%	2.89%
Angular (Corre Conc-% D	C		4	1.412					1.249 1.249	1.412 1.412			
Angular (Corre Conc-%) 13 26	C		4 4	1.412 1.371	1.242	1.501		1.412			0.04074	5.94%	2.89%
100 Angular (Corre Conc-% 0 13 26 52 76	C		4 4 4	1.412 1.371 1.371	1.242 1.242	1.501 1.501		1.412 1.412	1.249	1.412	0.04074 0.04074	5.94% 5.94%	2.89% 2.89%

CETIS™ v1.9.6.14

and Growth Te									
and oroman re	est							Sea	Crest Grou
Endpoint: 7d	Survival Rat	е		(CETIS Vers	ion:	CETISv1	.9.6	
Analysis: Lin	ear Interpola	tion (ICPIN)		5	Status Lev	el:	1		
Test Type: Gro	owth-Surviva	l (7d)		,	Analyst:	Lab	Tech		
Protocol: EP	A/821/R-02-	013 (2002)		1	Diluent:	Reco	nstituted V	Vater	
Species: Pin	nephales pro	melas		E	Brine:	Not A	Applicable		
Taxon: Act	tinopterygii			5	Source:	In-Ho	ouse Cultur	re	Age:
Code: 422	2492.B			F	Project:	WET	Quarterly	Complianc	e Test (4Q
Material: PO	TW Effluent			5	Source:	NPD	ES Permit	# (XX9999	9999)
CAS (PC):				5	Station:	001B			
Client: BM	IRI								
	samples	Exp 95%	CL Met	thod					
2015938 100	00	Yes	Two	o-Point In	terpolation				
ICL TU	95% LCL	95% UCL							
<1	n/a	n/a							
<1	n/a	n/a							
<1	n/a	n/a							
<1	n/a	n/a							
<1	n/a	n/a							
<1 <1	n/a n/a	n/a n/a							
	1ı/d								. Martata
			ated Vari						nic Variate
Mean 1.0000	Min 1.0000	Max 1.0000	Std Dev 0.0000	CV%	%Eff	ect	A/B 40/40	Mean 1	%Effect 0.0%
0.9750	0.9000	1.0000	0.0500	5.13%			39/40	0.9875	1.25%
0.9750	0.9000	1.0000	0.0500	5.13%			39/40	0.9875	1.25%
1.0000	1.0000	1.0000	0.0000	0.00%			40/40	0.9875	1.25%
1.0000	1.0000	1.0000	0.0000	0.00%			40/40	0.9875	1.25%
0.9750	0.9000	1.0000	0.0500	5.13%			39/40	0.975	2.5%
Rep 2	Rep 3	Rep 4							
1.0000	1.0000	1.0000							
0.9000	1.0000	1.0000							
1.0000	1.0000	1.0000							
1.0000	1.0000	1.0000							
1.0000	1.0000	1.0000							
0.9000	1.0000	1.0000							
1.	0000	0000 1.0000	0000 1.0000 1.0000	0000 1.0000 1.0000	0000 1.0000 1.0000	0000 1.0000 1.0000	0000 1.0000 1.0000	0000 1.0000 1.0000	0000 1.0000 1.0000

Analyst: M QA: HW

7-d Larval Survival and Growth	Test						Sea	Crest Grou
							1999	crest Grou
	lean Dry Bion Parametric-Co		itments		IS Versio		.9.6	
-6000-1971 Test Type: 0	Growth-Surviva	al (7d)		Ana	lyst: L	ab Tech		
Oct-22 Protocol: E	PA/821/R-02-	-013 (2002)		Dilu	ent: R	econstituted V	Vater	
Oct-22 Species: P	imephales pro	omelas		Brin	ne: N	lot Applicable		
Oh Taxon: A	ctinopterygii			Sou	rce: Ir	-House Cultur	е	Age:
-1295-1426 Code: 4	22492.B			Proj	ject: V	VET Quarterly	Complian	ce Test (40
Oct-22 Material: P	OTW Effluent	t		Sou	rce: N	PDES Permit	# (XX9999	99999)
Oct-22 CAS (PC):				Stat	ion: 0	01B		
Client: B	MRI							
Alt Hyp				NOEL	LOEL	TOEL	TU	PMSD
C>T				100	>100	n/a	1	12.85%
Comparison Test								
	Critical		DTune	DValue	Desisie			
Conc-% Test Sta 13 -0.7738	at Critical 2.407	MSD DF 0.047 6	CDF	P-Value 0.9688		on(α:5%) phificant Effect		
26 -0.8627	2.407	0.047 6	CDF	0.9751		gnificant Effect		
52 0.1523	2.407	0.047 6	CDF	0.7846		nificant Effect		
76 -0.2536	2.407	0.047 0	CDF	0.8971		nificant Effect		
100 -2.157	2.407	0.047 6	CDF	0.9995		nificant Effect		
Sum Squares Mean Se		DF	F Stat	P-Value	Decisio	m(m.E9/)		
Sum Squares Mean Se 0.0055192 0.001103		5	1.422	0.2637		on(α:5%) Inificant Effect		
0.0139716 0.00077		18	1.422	0.2037	14011-515	initiant Enect		
0.0194908	02	23	-					
ions Tests								
Test		Test Stat	Critical	P-Value	Decisio	n(a:1%)		
Bartlett Equality of Variance Tes	+	1.391	15.09	0.9253		on(α:1%) ariances		
Shapiro-Wilk W Normality Test		0.941	0.884	0.9255		Distribution		
ss-mg Summary								
Code Count Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
D 4 0.369	0.3186	0.4194	0.362	0.339	0.413	0.01583	8.58%	0.00%
4 0.3842	0.3357	0.4328	0.3855	0.354	0.413	0.01526	7.94%	-4.13%
4 0.386	0.3572	0.4148	0.3865	0.365	0.406	0.009062	4.70%	-4.61%
4 0.366	0.3198	0.4122	0.373	0.327	0.391	0.01453	7.94%	0.81%
4 0.374	0.34	0.408	0.3675	0.356	0.405	0.0107	5.72%	-1.35%
4 0.4115	0.3589	0.4641	0.4075	0.383	0.448	0.01654	8.04%	-11.52%
s-mg Detail								
Code Rep 1 Rep 2	Rep 3	Rep 4						
D 0.339 0.368	0.413	0.356						
0.412 0.354	0.409	0.362						
0.378 0.395	0.365	0.406						
0.327 0.391	0.361	0.385						
0.369 0.405	0.356	0.366						
0.384 0.383	0.431	0.448						

Analyst: DM QA: HW

Fathead Mini								Test Code/	10.			5-8016-94
	now 7-d Larval	Survival and	d Growt	h Test						1	SeaC	rest Grou
Analysis ID:	16-2131-1905	End	dpoint:	Mean Dry Bion	nass-mg		(CETIS Vers	sion:	CETISv1.9.6		
Analyzed:	18 Oct-22 15:0	4 Ana	alysis:	Linear Interpola	ation (ICPIN)	\$	Status Lev	el:	1		
Batch ID:	08-6000-1971	Tes	t Type:	Growth-Surviva	al (7d)		,	Analyst:	Lab 1	Tech		
Start Date:	10 Oct-22	Pro	tocol:	EPA/821/R-02-	-013 (2002)			Diluent:	Reco	nstituted Water		
Ending Date:	17 Oct-22	Spe	ecies:	Pimephales pro	omelas		E	Brine:	Not A	pplicable		
Test Length:	7d 0h	Тах	on:	Actinopterygii			5	Source:	In-Ho	use Culture		Age:
Sample ID:	01-1295-1426	Cod	de:	422492.B			F	Project:	WET	Quarterly Comp	liance	e Test (4C
Sample Date:	: 10 Oct-22	Mat	erial:	POTW Effluent	t		5	Source:	NPD	ES Permit # (XXS	99999	999)
Receipt Date:	: 10 Oct-22	CAS	S (PC):				5	Station:	001B			
Sample Age:	n/a	Clie	ent:	BMRI								
_inear Interp	olation Options											
K Transform	Y Transform	n See	d	Resamples	Exp 95%	CL Met	hod					
inear	Linear	546	635	1000	Yes	Two	-Point In	terpolation				
Point Estimat	tes											
evel %	95% LCL	95% UCL	τυ	95% LCL	95% UCL							
C5 >100	n/a	n/a	<1	n/a	n/a							
C10 >100		n/a	<1	n/a	n/a							
C15 >100		n/a	<1	n/a	n/a							
C20 >100		n/a	<1	n/a	n/a							
C25 >100 C40 >100		n/a n/a	<1 <1	n/a n/a	n/a n/a							
C50 >100		n/a n/a	<1	n/a n/a	n/a n/a							
				Ind	AVA.							
	mass-mg Sumr		-			culated Va						ic Variate
Conc-%	Code D	Count 4	Mean 0.369	Min 0.339	Max 0.413	Std Dev 0.03165	CV% 8.58%	%Eff	2.2.2	Mea 0.38	2.0	%Effec 0.0%
3	U	4	0.3842		0.413	0.03165	7.94%			0.38		0.0%
6		4	0.386	0.365	0.406	0.01812	4.70%			0.38		0.0%
2		4	0.366	0.327	0.391	0.02905	7.94%			0.38		0.0%
6		4	0.374	0.356	0.405	0.0214	5.72%			0.38		0.0%
00		4	0.4115	5 0.383	0.448	0.03307	8.04%	-11.5	2%	0.38	18	0.0%
lean Dry Bio	mass-mg Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4							
1	D	0.339	0.368	0.413	0.356							
		0.412	0.354	0.409	0.362							
3		0.378	0.395	0.365	0.406							
6		0.327	0.391	0.361	0.385							
6 2												
6		0.369	0.405 0.383	0.356 0.431	0.366 0.448							

Appendix 4 – QA/QC and Reference Toxicant Test Chart

Quality Assurance Check List - Chronic Whole Effluent Toxicity Test

Client:	Battle Mountain Resources, Inc.
SeaCrest Sample No:	422492.B
Species Tested:	Ceriodaphnia dubia and fathead minnow

Sample Dates	Start Date of Test (Ceriodaphnia dubia)	Start Date of Test (fathead minnow)
10-10-2022		
10-12-2022		
10-14-2022	10-10-2022	10-10-2022

Sample received in lab properly preserved (0-6°C)?	N*
Sample received at laboratory within 36 hours of collection?	Y
Sample delivered on ice or equivalent?	Y
Test initiated within 36-hours of collection?	Y
Test protocol conforms to CDPHE guidelines (Ceriodaphnia dubia)?	Y
Test protocol conforms to CDPHE guidelines (fathead minnow)?	Y
Average test temp. ±1°C (Ceriodaphnia dubia)?	Y
Average test temp. ±1°C (fathead minnow)?	Y
DO level ≥4.0mg/L; no super-saturation (Ceriodaphnia dubia)?	Y
DO level ≥4.0mg/L; no super-saturation (fathead minnow)?	Y
Survival in control \geq 80% (<i>Ceriodaphnia dubia</i>)?	Y
Survival in control \geq 80% (fathead minnow)?	Y
Ceriodaphnia dubia neonates <24-hours old?	Y
Fathead minnow larvae <24-hours old?	Y
Appropriate reference toxicity test conducted?	Y
Reference toxicity test results within the confidence limits for the lab?	Y

* Samples #2 and #3 were received at 8.2°C and 8.1°C on the same day as sampling.

Author Position: Laboratory Supervisor

Quality Control

Date October 21,2022 Date October 21,2022

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Analyte	Date	LCS (rec)	%REC	%RPD	QC LIMITS
2320 B Alkalinity - Total	9/1/2022	104.00%	98.38%	3 77%	+ E 000/
2320 B Alkalinity - Total	9/6/2022	100.80%	00 25%	20 00 W	%00.5 H
	9/14/2022	104.00%	97.91%	0.00.0	± 5.00%
	9/21/2022	100.00%	101.60%	1.17%	1 5.00%
4500 NH ₃ D Ammonia	9/1/2022	99.40%	100.67%	-1.91%	+ 10 00%
	9/8/2022	96.20%	96.50%	-4.37%	+ 10 00%
4500 NH3 D Ammonia	9/15/2022	103.00%	103.00%	-2.45%	+ 10 00%
	9/22/2022	97.20%	99.01%	0.82%	+ 10 00%
	9/20/2022	96.88%	87.10%	0.00%	+ 5 00 + 20 00%
2340 B Hardness - Total	9/7/2022	104.00%	99.10%	1.29%	+ 20.00/2 + 20.00/0
	9/12/2022	103.00%	98.00%	1.26%	20007 F
2340 B Hardness - Total	9/20/2022	103.51%	98.90%	-1.17%	70007 F
2340 B Hardness - Total	9/27/2022	103.51%	89.90%	-4.51%	± 5.00%
		LCS (rec)	%REC M1	%REC M2	OC I imite
	9/9/2022	N/A	98.57%	98.57%	+ 5 00%
	9/16/2022	N/A	100.00%	98.57%	
	9/22/2022	N/A	98.57%	98.57%	2000 F
4500 O DO - Winkler	9/27/2022	N/A	100.00%	100.00%	± 5.00%
		Blank	%REC MR S	%RPD	
2540 D Suspended Solids (TTL) 2540 C Dissolved Solids (TTL)	TL) 9/21/2022	100.00%	98.48%	0.00%	± 15%
		0/00/00	%DR. 101	0.00%	± 15%
A. H. m	1 Cha				
signature: (MX C + -	R rul			Signature:	Noung Wert
October 1,	2022			Date:	October 1, 2022

SeaCrest Group 500 S Arthur Ave. Suite 450 Louisville, CO 80027 (303) 661.9324 FAX (303) 661.9325





Γ	Τ																			
+2 SD	7477 0	7777 0	1411.2	5011.2 7564	2 7066	2 8252	2 7425	2 7816	28150	2 7797	2 7874	2 7082	2 7082	2021202	27676	2 7453	2 7582	2 7828	2 8054	2.8328
-2 SD	1.3939	1 3939	1 4048	1 4945	1 5357	1.4386	1.4777	1.5041	1.5342	1.5338	1.5310	1.5330	1.5330	1.6590	1.6774	1 7257	1.6951	1.6031	1.4959	1.4989
Mean	2.0843	2.0843	2.1359	2.1304	2.1661	2.1319	2.1101	2.1429	2.1746	2.1568	2.1592	2.1656	2.1656	2.1982	2.2200	2.2355	2.2267	2.1930	2.1506	2.1658
IC25	2.0710	2.1250	2.5000	2.2190	2.5000	1.5000	2.3330	2.5000	2.5000	2.1250	2.5000	2.3330	1.8330	2.1250	2.4580	2.1250	1.8330	1.6250	1.5000	2.4440
Date	02/15/21	03/04/21	04/01/21	05/03/21	06/14/21	07/01/21	08/11/21	09/06/21	10/03/21	11/04/21	12/07/21	01/03/22	02/23/22	03/22/22	04/18/22	05/16/22	06/14/22	07/05/22	08/16/22	9/20/2022
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+2 SD	1.3470	1 362457854	1.3605	1.3461	1.3521	1.3499	1.3599	1.3375	1.3162	1.3367	1.3311	1.3076	1 3284	1 3354	1.3154	1.3174	1.3025	1.3053	1.3129	1.3123
-2 SD	0.7653	0.764612146	0.7475	0.7439	0.7472	0.7475	0.7508	0.7516	0.7574	0.7807	0.7830	0.7931	0.8016	0.8084	0.8489	0.8376	0.8293	0.8330	0.8126	0.8138
Mean	1.0562	1.063535	1.0540	1.0450	1.0496	1.0487	1.0553	1.0445	1.0368	1.0587	1.0570	1.0503	1.0650	1.0719	1.0821	1.0775	1.0659	1.0691	1.0628	1.0630
IC25	0.9453	1.21	0.9062	1.0030	1.1140	1.1340	1.1550	1.0180	1.0820	1.2630	1.1930	1.1450	1.2300	1.1390	1.0040	0.9527	0.9716	1.0920	0.8750	0.8275
Date	01/04/21	2/15/2021	03/04/21	04/01/21	05/03/21	06/14/21	07/01/21	08/11/21	09/06/21	10/03/21	11/04/21	12/07/21	01/03/22	02/23/22	03/22/22	04/18/22	05/16/22	06/14/22	07/05/22	08/16/22
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FHM SURVIVAL LC25 NaCI REFTOX



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6.1596	6.3925	6.4155	6.5101	6 7224	6.7226	6.7904	6.8135	6.8799	7.0713	7.0900	7.1688	7.2464	7.2622	7.3872	7 4081	7 4488	7.4112	7.4137	7.3925
2.0920	1.9849	1.7621	1.7345	1.6465	1.6644	1.7899	1.9442	1.9620	2.0849	1.9736	2.2009	2.4258	2.3657	2.3955	2.6626	2.7150	2.6328	2.6233	2.5089
4.1258	4.1887	4.0888	4.1223	4.1844	4.1935	4.2901	4.3788	4.4210	4.5781	4.5318	4.6848	4.8361	4.8140	4.8914	5.0353	5.0819	5.0220	5.0185	4.9507
6.1583	6.2160	2.3750	5.5000	6.2580	3.7000	5.1250	4.8750	5.2000	6.3570	3.2000	6.0000	6.1400	3.5870	6.0670	6.0500	5.5000	4.1820	4.0000	3.8420
03/25/21	04/02/21	05/20/21	06/28/21	07/24/21	08/19/21	09/02/21	10/08/21	11/22/21	12/20/21	01/27/22	02/08/22	03/21/22	04/19/22	05/06/22	06/21/22	07/23/22	08/03/22	09/06/22	10/12/22
	6.1583 4.1258 2.0920	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 2.3750 4.0888 1.7621	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 2.3750 4.0888 1.7621 5.5000 4.1223 1.7345	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.3750 4.0888 1.7621 5.5000 4.1223 1.7345 6.2580 4.1844 1.6465	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 2.3750 4.1887 1.9849 2.3750 4.0888 1.7621 5.5000 4.1223 1.7621 5.5000 4.1223 1.7645 3.7000 4.1935 1.6644	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 2.3750 4.1887 1.9849 2.3750 4.1887 1.7621 5.5000 4.1223 1.7621 5.5000 4.1223 1.7345 6.2580 4.1844 1.6465 3.7000 4.1935 1.6644 5.1250 4.2901 1.7899	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.9849 5.5000 4.1887 1.7621 5.5000 4.1223 1.7621 5.5000 4.1223 1.7345 6.2580 4.1844 1.6465 3.7000 4.1935 1.6465 5.1250 4.2901 1.7899 4.8750 4.3788 1.9442	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.9849 5.5000 4.0888 1.7621 5.5000 4.1823 1.7345 5.5000 4.1823 1.7345 5.5000 4.1935 1.6644 5.1250 4.1935 1.7899 4.8750 4.3788 1.9442 5.2000 4.4210 1.9620	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.9849 5.5000 4.0888 1.7621 5.5000 4.1823 1.7345 5.5000 4.1823 1.7646 5.5000 4.1935 1.6644 5.1250 4.1935 1.6644 5.1250 4.1935 1.6445 5.1250 4.2901 1.7899 6.3570 4.5781 2.0849	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.9849 5.5000 4.1887 1.7345 5.5000 4.1823 1.7345 5.5000 4.1823 1.7345 5.5000 4.1223 1.7621 5.5000 4.1223 1.7345 6.2580 4.1935 1.6644 5.1250 4.1935 1.6644 5.1250 4.2901 1.7899 6.3570 4.210 1.9442 5.2000 4.5781 1.9620 6.3570 4.5781 1.9736	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.9849 5.5000 4.1887 1.7621 5.5000 4.1823 1.7621 5.5000 4.1823 1.7621 5.5000 4.1823 1.7621 5.5000 4.1223 1.7345 6.2580 4.1844 1.6644 5.1250 4.1935 1.6644 5.1250 4.2901 1.7899 4.8750 4.2378 1.9442 5.2000 4.4210 1.9442 5.2000 4.5781 2.0849 5.2000 4.5781 2.0849 6.0000 4.5781 2.009	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.9849 5.5000 4.1887 1.7621 5.5000 4.1823 1.7621 5.5000 4.1823 1.7621 5.5000 4.1823 1.7621 5.5000 4.1823 1.7645 6.2580 4.1844 1.6644 5.1250 4.1935 1.6644 5.1250 4.2901 1.7899 6.25000 4.2378 1.9442 5.2000 4.4210 1.9442 5.2000 4.5781 2.0849 6.3570 4.5781 2.0849 6.0000 4.5781 2.009 6.1400 4.6348 2.2009	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 6.2160 4.1887 1.9849 5.5000 4.1887 1.7621 5.5000 4.1887 1.7621 5.5000 4.1844 1.7621 5.5000 4.1844 1.7621 5.5000 4.1844 1.7345 6.2580 4.1844 1.6644 5.1250 4.1935 1.7899 4.1935 1.6465 1.7899 5.1250 4.2901 1.7899 6.2570 4.2378 1.9442 5.2000 4.5781 2.0849 5.2000 4.5781 2.0849 6.3570 4.5781 2.0849 5.2000 4.5781 2.0849 5.2000 4.5781 2.0849 5.2000 4.5781 2.24258 5.1400 4.8361 2.4258 5.3657 4.8140 2.3657	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.7621 5.5000 4.1887 1.7621 5.5000 4.1844 1.7621 5.5000 4.1844 1.7621 5.5000 4.1844 1.7621 5.5000 4.1844 1.7621 5.1250 4.1844 1.7645 5.1250 4.1935 1.6465 5.1250 4.1935 1.6465 5.1250 4.1935 1.6465 5.1250 4.1935 1.6465 5.1250 4.2901 1.7899 6.3570 4.5781 2.0849 5.2000 4.5781 2.0849 6.0000 4.5781 2.0849 6.0000 4.8140 2.4258 5.5870 4.8140 2.3657 6.0670 4.8140 2.3657	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.9849 5.5000 4.1887 1.7345 5.5000 4.1844 1.7621 5.5000 4.1843 1.7345 5.2580 4.1844 1.7345 5.1250 4.1844 1.7899 5.1250 4.1935 1.7899 5.1250 4.1935 1.7899 6.2580 4.5781 1.7899 6.3570 4.5781 1.9620 6.3570 4.5781 1.9736 6.1400 4.518 1.9736 6.1400 4.8140 2.4258 6.0670 4.8140 2.3355 6.0670 4.8140 2.3657 6.0670 4.8914 2.3355	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 6.2160 4.1887 1.9849 5.5000 4.1887 1.7521 5.5000 4.1844 1.7621 5.5000 4.1844 1.7345 5.5000 4.1835 1.7345 5.2500 4.1935 1.7899 5.1250 4.1935 1.6465 5.1250 4.1935 1.6465 5.1250 4.2901 1.7899 6.2570 4.2901 1.7899 6.2570 4.2318 1.9442 5.2000 4.5781 1.9736 6.3570 4.5781 2.0849 6.0000 4.6848 2.2009 6.1400 4.8361 2.4258 6.0670 4.8361 2.3657 6.0670 4.8140 2.3655 6.0670 5.0353 2.6626 5.5000 5.001 5.0355	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 5.5000 4.1887 1.9849 5.5000 4.1887 1.7621 5.5000 4.1844 1.7621 5.2580 4.1844 1.7621 5.1250 4.1844 1.7621 5.1250 4.1844 1.7624 5.1250 4.1935 1.7644 5.1250 4.1935 1.7624 5.1250 4.1935 1.7789 5.1250 4.1935 1.7789 5.1250 4.2901 1.7789 5.1250 4.2378 1.9442 5.2000 4.5318 1.9736 6.0000 4.5318 1.9736 6.1400 4.8361 2.4258 5.000 4.8140 2.3955 6.0670 4.8140 2.3955 6.0500 5.0353 2.7150 5.000 5.0353 2.7150 5.000 5.0220 5.0220	6.1583 4.1258 2.0920 6.2160 4.1887 1.9849 6.2580 4.1887 1.7621 5.5000 4.1887 1.7621 5.5000 4.1887 1.7621 5.5000 4.1233 1.7621 5.5000 4.1233 1.7345 5.2000 4.1935 1.6465 5.1750 4.1935 1.6444 5.1750 4.1935 1.7899 6.2570 4.210 1.7899 6.3570 4.4210 1.9620 6.3570 4.5781 1.9645 6.0000 4.5781 1.9646 6.1400 4.5781 2.0849 6.1400 4.5781 2.0849 6.1400 4.5318 1.9736 6.1400 4.5318 1.9736 6.0000 4.8361 2.2009 6.1400 2.3657 2.3657 7.8500 5.0353 2.6626 6.0500 5.0353 2.7150 7.160 <td< td=""></td<>

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+2 SD	7 5919	7 7295	7 8162	7 9113	7 9582	7.9619	8.0895	8.0905	8 0771	8 0788	8 0692	7 9266	8.0729	8 2271	8 2074	8 2074	8.1587	8 1611	8.1620	8.1465
-2 SD	2.5891	2.5395	2.2272	2.2267	2.5384	2.8247	2.8982	2.9074	3.0315	3.0309	3.2082	3.7120	3.8121	3.8358	3.8376	3.8376	3.7409	3.7354	3.5812	3.7966
Mean	5.0905	5.1345	5.0217	5.0690	5.2483	5.3933	5.4939	5.4990	5.5543	5.5549	5.6387	5.8193	5.9425	6.0314	6.0225	6.0225	5.9498	5.9482	5.8716	5.9716
IC25	6.5280	6.8650	2.7590	6.2200	6.5530	6.2310	6.6650	5.0481	5.3520	6.7310	5.8200	6.6580	7.2690	7.2990	6.5630	6.5000	5.0500	4.6040	4.5630	6.3570
Date	03/25/21	04/02/21	05/20/21	06/28/21	07/24/21	08/19/21	09/02/21	10/08/21	11/22/21	12/20/21	01/27/22	02/08/22	03/21/22	04/19/22	05/06/22	06/21/22	07/23/22	08/03/22	09/06/222	10/12/22
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<u>APPENDIX D</u> REPORT REQUEST

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NEWMONT.COM

Please consider the environment before printing this e-mail.

From: Julio Madrid <<u>Julio.Madrid@newmont.com</u>>
Sent: Wednesday, February 22, 2023 1:52 PM
To: Melissa Chalona <<u>mchalona@enganalytics.com</u>>
Cc: Karen DeAguero <<u>Karen.DeAguero@newmont.com</u>>
Subject: FW: [EXTERNAL] Annual Fee, Report, and Map Due

From: Division of Reclamation, Mining and Safety <<u>dnr_drms_permitadmin@state.co.us</u>>
Sent: Tuesday, February 21, 2023 11:35 PM
To: Julio Madrid <<u>Julio.Madrid@newmont.com</u>>
Subject: [EXTERNAL] Annual Fee, Report, and Map Due
Importance: High

02/21/23

Annual Fee, Report, and Map Due

Under the terms of your NOI or Permit and Colorado Statutes, you must submit an Annual Fee and Annual Report (including a map). You must pay the Annual Fee and submit an Annual Report each year until reclamation responsibility release is granted. The Annual Fee is not a renewal fee. The Fee and Report are for last year's exploration or mining and reclamation season, and must be paid even if your operation was inactive.

If you have requested reclamation responsibility release from the Division of Reclamation, Mining and Safety ("Division") but release has not been granted by the anniversary date listed below, the Annual Fee, Report and Map must be submitted. If the permit is released before the anniversary date, then by Statute, it is not necessary to pay an Annual Fee or submit an Annual Report for that year. The annual fee, report, and map are due on or before the Anniversary Date for the following operation:

Permit: M1988112

ePermit Number: 127925

Operation Name: San Luis Project

Anniversary Date: 03/23/23

Total Fee Due: \$1,150.00

As of January 1, 2018, all annual reports, maps and fees must be filed electronically. If you have not yet set up your ePermitting account, click on the link below to get started:

https://drms.colorado.gov/information/epermitting

If you have already established your ePermitting account, click on the link below to file your report, upload your map, and pay your fee online now.

https://dnrlaserfiche.state.co.us/Forms/DRMSeForms_LandingPage

If you need additional information or have any questions, please contact Lucas West at the Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at (303) 866-3567 x8187, or by email at <u>lucas.west@state.co.us</u>.

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APPENDIX E 2022 SITE MAP

