Newmont
NORTH AMERICA

CRIPPLE CREEK & VICTOR
PO Box 191
100 N. 3rd Street
Victor CO 80860

May 24, 2024

ELECTRONIC DELIVERY

Mr. Elliott Russell
Environmental Protection Specialist
Colorado Department of Natural Resources
Division of Reclamation, Mining and Safety
Office of Mined Land Reclamation
1313 Sherman Street, Room 215
Denver, Colorado 80203

Re: Permit No. M-1980-244; Cripple Creek & Victor Gold Mining Company; Cresson Project; Technical Revision 144 – ECOSA Seepage Collection Improvements

Dear Mr. Russell:

Newmont Corporation's Cripple Creek and Victor Gold Mining Company (CC&V) hereby provides this Technical Revision (TR) 144 to Permit M-1980-244, to construct improvements to the collection system for surficial expressions of seepage of mine impacted water from the East Cresson Overburden Storage Area (ECOSA). Enclosed with this submission is:

- Attachment 1: Technical Revision Details
- Attachment 2: Collection Design Memorandum
- Attachment 3: Collection Area Design Drawings

The technical revision payment fee in the amount of $1,006 will be made electronically via the DRMS webpage and confirmation will be submitted to your office via email.

Should you require further information, please do not hesitate to contact Antonio Matarrese at 719-851-4185 or Antonio.Matarrese@Newmont.com or myself at Katie.Blake@Newmont.com.

Sincerely,

DocuSigned by:
Katie Blake
5[illegible]629844B...

Katie Blake
Sustainability & External Relations Manager
Cripple Creek & Victor Gold Mining Co

Ec: E. Russell - DRMS
P. Lennberg – DRMS
Z. Trujillo - DRMS
J. McBryde – Teller County
J. Gonzalez – CC&V
K. Blake – CC&V
N. Townley – CC&V
A. Matarrese – CC&V

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Attachment 1

Background

The ECOSA facility was approved for construction by DRMS within Amendments 9 & 10 (Mine Life Extension #2) to mining Permit M-1980-244. In 2017, a seep expression (Seep 1) was discovered behind the ECOSA toe berm near the southern end of the facility. Since that time, water has been pumped from a low point downgradient of the expression for periodic collection. Subsequently, in 2022, another seep expression (Seep 2) emerged behind the ECOSA toe berm, approximately 2,400 feet north of Seep 1. To manage these occurrences, seep collection areas were strategically constructed at identified low points to effectively capture and contain seepage for periodic collection. Since the discovery of the seeps, adaptive management practices have included water quality sampling, installation of monitoring wells in Grassy Valley, and increased monitoring of the area. A water truck is used to pump the collection areas regularly and when nearing full capacity, with the extracted water then directed for return to the lined Valley Leach Facilities. The seepage collection is typically practiced from May through October. After October the observed seepage typically freezes and ceases to flow during the winter months.

In the fourth quarter of 2023, seepage was discovered behind the toe berm of the facility at two additional locations (Seep 3 & Seep 4) positioned between the existing Seep 1 and Seep 2 locations. Subsequently, during the Spring runoff in May 2024, another location (Seep 5) exhibited minor seepage behind the toe berm, located north of the Seep 2 location. Like the other seeps, the fluid observed at this location was characterized by its reddish-brown color. To address these five surficial expressions of seepage from the ECOSA, CC&V intends to establish temporary seepage collection areas at these sites and continue with regular collection using a water truck to ensure comprehensive capture and containment of observed seepage.

CC&V continues to provide DRMS with Monthly Reports in accordance with the approved *Quality Assurance Project Plan and Field Sampling Guidance for Grassy Valley Monthly Monitoring* dated February 27, 2023. The Grassy Valley Monthly Monitoring currently includes monitoring from surface water locations GV-02, GV-03, GV-06 and groundwater locations GVMW-4A, GVMW-7A, GVMW-7B, GVMW-8A, GVMW-8B, GVMW-10, GVMW-15A, GVMW-15B, GVMW-22A, GVMW-22B, GVMW-24A, GVMW-24B, GVMW-25, GVMW-26A, GVMW-26B, Seep 1, and Seep 2. The more recently identified seeps will also be incorporated into the monthly monitoring upon construction of collection areas.

Approach

CC&V is proposing additional adaptive management improvements by enhancing the current seep collection infrastructure through the implementation of lined collection areas and ditches positioned along the ECOSA toe to effectively capture and contain surficial expressions of seepage. The proposed seepage collection system comprises four lined collection areas and approximately 2,325 feet of lined collection ditch. The purpose of the proposed improvements to these facilities is to align with Environmental Protection Facility (EPF) requirements. The detailed Seepage Collection Design Memorandum and Design Drawing package are included as Attachments 2 and 3, respectively.

The proposed seep collection areas for Seep 1 and Seep 2 (Seep Collection Area 1 and 2) will remain in their existing locations with modifications to increase capacity prior to liner installation as shown on sheet number CS103 and CS101 respectively. The alignment of the collection ditch (Seep Collection Ditch 1) for Seep Collection Area 1 will be maintained at its current alignment. Seep Collection Area 3/4 will be

constructed in between Seep Collection Areas 1 and 2 with approximately 1,300 feet of collection ditch (Seep Collection Ditch 3/4A) from the north and approximately 525 feet of collection ditch (Seep Collection Ditch 3/4B) from the south. Seep Collection Area 3/4 and the associated collection ditch will collect and contain water from the newly identified Seeps 3 and 4. Seep Collection Area 5 will be constructed at the location of observed seepage from Seep 5. No collection ditch is proposed for this location as the observed seepage appears to be localized to a small area. Design details for the Seep Collection Areas and Collection Ditches can be found on sheet number CS500 in Attachment 3.

The Seepage Collection Areas have been conservatively sized to contain the estimated maximum seepage flow for a 24 hour period, based on historical seepage rates, and a 2-year/24-hour, plus 10-year/24-hour storm event. Ditches were sized using the Manning's equation, assuming peak flowrates for seepage and stormwater flow. During the monsoon season, current Seep Collection Area 1 has had the most significant inflow, necessitating pumping up to twice per 12-hour shift. Records indicate that the largest seep collection flow rates at Collection Area 1 were experienced in July of 2021; during this time, approximately 180,000 gallons of seepage were pumped. For planning purposes, it was assumed that each seep is capable of producing similar seepage flow rates. This calculation gives an estimated seepage rate of 375 gal/ac/day. In addition to seepage inflows, sizing included 2-year/24-hour storm event, plus 10-year/24-hour storm event flows, as per guidance for the Mineral Rules and Regulations for EPFs. Additional design details including design parameters, collection area sizing calculations, and a drainage area map can be found in Attachment 2. Table 1 presents seepage and storm event flows and proposed sizing for each of the 4 collection areas:

Table 1:

Collection Area	Maximum Volume per Shift (cubic ft)	Maximum Volume per Day (cubic ft)
1	4,066	5,670
2	2,261	3,916
3/4	7,905	12,317
5	6,122	10,910

The seep collection areas and ditches will be constructed with a low permeability 40 mil High Density Polyethylene (HDPE) geomembrane liner underlain with native clay material to minimize migration of collected seeps to the underlying aquifer. CC&V proposes using the OrbWeave 40SFL liner by Great Lakes Lining. This liner is a multi-layered, reinforced 18.5 oz membrane ideal for medium and heavy-duty applications. It is extremely chemical and puncture resistant, with excellent ultraviolet (UV), ozone, and oxidation resistance. The membrane can tolerate pH values ranging from 1.4 to 14. The hydraulic conductivity has been proven to be 0.0 cm/s No Flow. The material specifications for the geomembrane proposed are included in Attachment 2.

To accommodate the increased capacity for the Seep Collection Areas, CC&V is proposing to relocate the existing access road where needed to accommodate collection areas, and widen the existing access road in key locations to allow for truck turn-arounds, to ensure sufficient capacity while maintaining adequate access.

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Schedule
Construction activities are expected to be completed over a two-month period. The most advantageous period for construction falls within the first and second quarters of the year, coinciding with the cessation or significant reduction of seepage flow. CC&V will also plan to identify and survey all seepage emergence points during the 2024 monsoon season.

Monitoring
During mining operations, CC&V will continue to utilize the same management practices of inspecting and pumping the seep collection areas. Seep Collection Areas will continue to be inspected once per week by Mine Operations, with the frequency increasing to at least once per shift during periods of increased seepage flow. Additionally, following construction of the seepage collection system, the Sustainability & External Relations (S&ER) Department will conduct weekly inspections of Seep Collection Areas and Collection Ditches. These inspections will entail visual assessments of the collection areas and ditch liner systems to verify their effective operation and identify any maintenance needs. If maintenance needs are identified, CC&V will immediately begin planning to address the concern and restore proper operation. The Seep Collection Areas will also be incorporated into the monthly monitoring and water quality sampling in accordance with the approved *Quality Assurance Project Plan and Field Sampling Guidance for Grassy Valley Monthly Monitoring* dated February 27, 2023.

Conclusion
The proposed scope of work by CC&V in this Technical Revision aims to enhance the existing ECOSA Seepage Collection System to align with the requirements of an Environmental Protection Facility (EPF). The Seep Collection Areas have been sufficiently sized to contain maximum anticipated seepage flow as well as stormwater flow. Geomembrane liners have been included to prevent the migration of surficial expressions of seepage into the subsurface. The proposed monitoring includes proactive and adaptive operation and inspection to remove collected seepage and ensure the system is operating as designed. Additionally, CC&V will progress the development of designs for a groundwater interception and collection system to support subsurface seepage mitigation at the ECOSA and progress prefeasibility studies, as described in TR 141, Adequacy Review 1 Response, dated February 14, 2024.

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Attachment 2

Seepage Collection Design Memorandum

Newmont ECOSA Seepage Mitigation

Cripple Creek & Victor Gold Mining Company

Victor, Colorado

May 22, 2024

Introduction

Newmont's Cripple Creek and Victor Gold Mining Company (Newmont) operates the Cresson Project located in the Cripple Creek Mining District. The East Cresson Overburden Storage Area (ECOSA) is an active waste rock dump location. In 2017, the first of several surface seep expressions were discovered along the southeast toe of the ECOSA (Seep 1).

Since discovery of the first seep, management practices have included water quality sampling, installation of down gradient groundwater monitoring wells, increased inspection and monitoring of the area, and pumping of the collection area(s). Water quality sampling has indicated that the seep water expressions have a very low pH. The seepage is currently collected into a ditch and associated collection area and pumped as needed using a water truck. The water is offloaded to lined Valley Leach Facilities.

Design Parameters

The seep collection areas must be designed as Environmental Protection Facilities in accordance with the *Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations* dated July 15, 2022. This design is being submitted as a Technical Revision (TR) to the interception and collection system. Environmental Protection Facilities must "consider site specific conditions and on or off-site impacts to human health, property and the environment."

Collection area liners must be accepted by the Division of Reclamation, Mining and Safety (DRMS), and must be used within design or manufacturer recommendations. For the seepage collection and design, we propose using the OrbWeave 40SFL liner by Great Lakes Lining. It is a multi-layered, reinforced 18.5 oz membrane ideal for medium and heavy-duty applications. It is extremely chemical and puncture resistant, with excellent UV, ozone, and oxidation resistance. The membrane can tolerate pH values ranging from 1.4 to 14. The hydraulic conductivity has been proven to be 0.0 cm/s No Flow. A specifications sheet from the manufacturer has been included at the end of this memo.

Collection areas and lined drainage ditches have been proposed along the toe of the ECOSA to route seep water expressions to the collection areas.

Collection Area Sizing

Collection area sizing was based on historical seepage pumping rates and volume for stormwater storage.

Seepage pumping records indicate that the largest seep collection flow rates were experienced in July of 2021. There were a total of 40 water truck loads that pumped approximately 180,000 gallons of seepage. During monsoon season, for Seep 1, the collection area has been pumped up to twice per 12-hr shift. The water truck has a 6,000-gallon capacity and is typically filled approximately ¾ full each time Seep 1 is pumped. This gives a conservative seep rate of 12,000 gal/shift for Seep 1. For planning purposes, we assume that each seep location is capable of

producing similar seepage flow rates to Seep 1. To turn this into a per acre rate, the flow rate is divided by the drainage area contributing to Seep 1. This results in a rate of 188 gal/acre/shift, or 375 gal/acre/day. Two collection area sizes have been proposed, one that is sized by the per 12-hour shift rate, and one that is sized by the 24-hour per day rate. The per day design provides more storage volume and allows for a more flexible pumping schedule, but has a larger footprint and tighter accessibility constraints. The per shift design uses a more compact footprint but would require pumping every 12-hr shift during peak flows. Each of the collection areas have been sized based on this maximum observed flow rate multiplied by each collection area. A map showing drainage areas is included as an attachment to this memo.

		per 12-hour Shift Sizing			per 24-hour Day Sizing		
Collection Area	Area (ac)	Flowrate (gal/ac/shift)	Volume (gal)	Volume (cubic ft)	Flowrate (gal/ac/day)	Volume (gal)	Volume (cubic ft)
1	64	188	12,000	1,604	375	24,000	3,209
2	66	188	12,375	1,654	375	24,750	3,309
3/4	176	188	33,000	4,412	375	66,000	8,824
5	191	188	35,813	4,788	375	71,625	9,576

The collection areas need to also be able to provide stormwater storage for the lined areas of the collection system. Environmental Protection Facilities (EPFs) require sizing for a 2-year, 24-hour storm up to the Probable Maximum Precipitation (PMP) event, plus a 10-year, 24-hour storm event. Rainfall intensities were taken from NOAA Atlas 14 and the drainage areas were calculated for the lined ditches and collection areas. The rational method was used to determine flowrates, and a runoff coefficient of 0.95 was used for all areas.

		2 Year Storm			10 Year Storm			Total Vol (cubic ft)
Collection Area	Area (ac)	Intensity (2-yr)	Flowrate (2-yr)	Vol (cf)	Intensity (10-yr)	Flowrate (10-yr)	Vol (cf)	
1	0.169	0.072	0.0116	1,001	0.105	0.0169	1,460	2,461
2	0.042	0.072	0.0029	247	0.105	0.0042	360	607
3/4	0.240	0.072	0.0164	1,421	0.105	0.0240	2,072	3,494
5	0.092	0.072	0.0063	543	0.105	0.0092	791	1,334

Combining these two volumes gives us the total volume needed for each collection area. The collection areas in the design drawings were conservatively oversized; however, when constructed each collection area will meet the total volume per day in the table below.

Collection Area	Total Volume per Shift (cubic ft)	Total Volume per Day (cubic ft)
1	4,066	5,670
2	2,261	3,916
3/4	7,905	12,317
5	6,122	10,910

Lined drainage ditches have been sized to accommodate the maximum flowrate to the collection areas using a simple manning's equation. At maximum flowrates, water will reach a depth of 0.4 feet in a v-shaped channel, so the proposed 1-foot channel depth is adequate to convey flows.

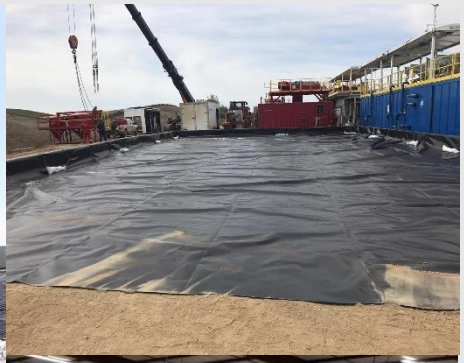
Conclusion

In closing, we feel the proposed construction of lined seepage collection areas and drainage ditches meets the criteria to be considered an Environmental Protection Facility. Newmont will continue to utilize the management practices put into place since the seeps were discovered. Newmont will be developing a groundwater interception and collection system design that will also be used to route and control seepage on-site.

Orb-Weave 40 SFL

OrbWeave40 SFL is a multi-layered reinforced 18.5oz geomembrane ideal for medium and heavy-duty applications. Our single film laminate technology provides increased physical properties. OrbWeave40 SFL is the industry leader in quality and strength. An extremely chemical and puncture resistant geomembrane with a low-density polyethylene film making it easier to weld than your standard membrane.

Welds Easier and Installs Faster



Features & Benefits	Applications:
• Puncture & abrasion resistant construction • Woven core provides excellent dimensional stability • Non-toxic, no PVC or other hazardous materials used • Excellent UV, ozone & oxidation resistance	Lagoon Liners, Oil & Gas, Canal Lining, soil remediation, pond liners, spill containment liners.

GREAT LAKES LINING

ORB WEAVE

Physical Properties & Testing Data:

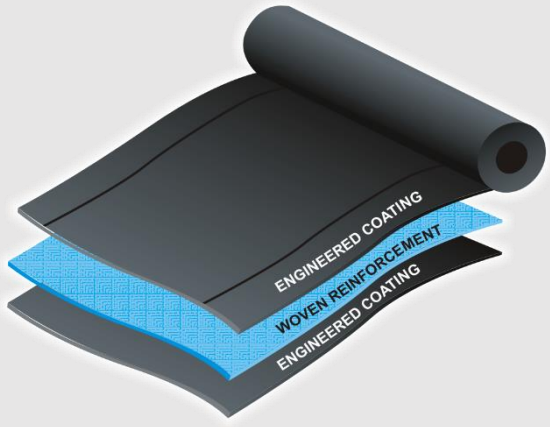
Lagoon Liners, Oil & Gas, Canal Lining, soil remediation, pond liners, spill containment liners.

Property	Value	Performance
Thickness	40mil	ASTM D1777
Color	black/black	others available upon
Tensile Strength	650lbs/MD 630lbs/TD	ASTM D751
Elongation	20%	ASTM D751
Trapezoidal Tear	150lbs MD 130lbs TD	ASTM D4533
Mullen Burst	1,200 PSI	ASTM D751
Hydraulic Conductivity	0.0 cm/s No Flow	ASTM D4491
Hydrostatic Resistance	740 PSI	ASTM D751
Index Puncture	225lbs	ASTM D4833
Accel UV Weathering	> 90% after 2,000 hrs	ASTM G154
Warranty	20 years exposed	20 years buried

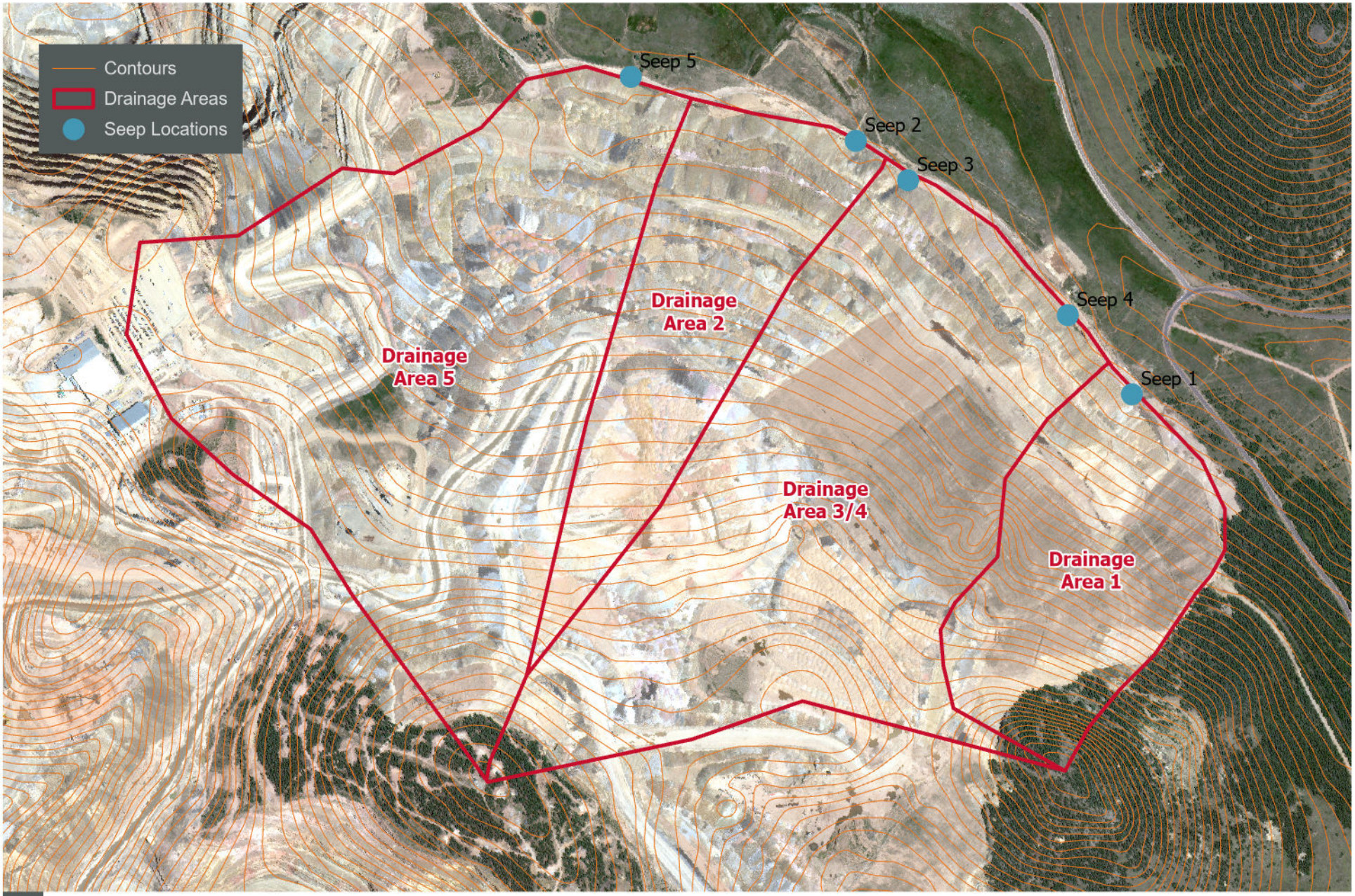
MD = machine direction; TD = transverse direction

These values are typical data and not intended for limiting specifications. We believe them to be reliable and accurate to the best of our ability and are intended for guidelines of performance (+/- 10%)

ORB WEAVE



www.greatlakeslining.com
www.orb-weave.com



DRAINAGE AREA MAP
Figure 1

Seepage Rates

Based on historic pumping rates from Seep 1:

maximum pumping rate	12000	gal/12hr shift (2 shifts per day)
area to collection area	64	acres
flowrate	188	gal/acre/shift
flowrate	375	gal/acre/day

		per Shift Sizing			per Day Sizing		
Collection Area	Area (ac)	Flowrate (gal/ac/shift)	Volume (gal)	Volume (cubic ft)	Flowrate (gal/ac/day)	Volume (gal)	Volume (cubic ft)
1	64	188	12,000	1,604	375	24,000	3,209
2	66	188	12,375	1,654	375	24,750	3,309
3/4	176	188	33,000	4,412	375	66,000	8,824
5	191	188	35,813	4,788	375	71,625	9,576

Storm Sizing

EPFs must be sized for 2-yr, 24 hr storm up to the PMP event plus the 10-yr, 24 hr storm event
all lined ditches and collection areas are included in the total area, with a runoff coefficient of 0.95

(from NOAA atlas 14)	intensity (in/hr)
2-yr, 24 hr	0.072
10-yr-24hr	0.105

		2 Year Storm			10 Year Storm			Total Vol (cf)
Collection Area	Area (ac)	Intensity (2-yr)	Flowrate (2-yr)	Vol (cf)	Intensity (10-yr)	Flowrate (10-yr)	Vol (cf)	
1	0.169	0.072	0.0116	1,001	0.105	0.0169	1,460	2,461
2	0.042	0.072	0.0029	247	0.105	0.0042	360	607
3/4	0.240	0.072	0.0164	1,421	0.105	0.0240	2,072	3,494
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1	4,066	5,670
2	2,261	3,916
3/4	7,905	12,317
5	6,122	10,910

Mannings open channel flow - v channel

sized for max Q

Q - seep (cfs)	0.1021
Q -2-yr storm (cfs)	0.0164
Q - 10-yr storm (cfs)	0.0240
Total Q	0.1426
bottom width (ft)	0
side slope (x:1)	1
Top width (ft)	0.742954085
Depth (ft)	0.371477042
A	0.137995193
P	1.050695743
R	0.131336968
S	0.018
n	0.05
eq.	0.142552378
set equal to zero	2.14991E-07

Newmont
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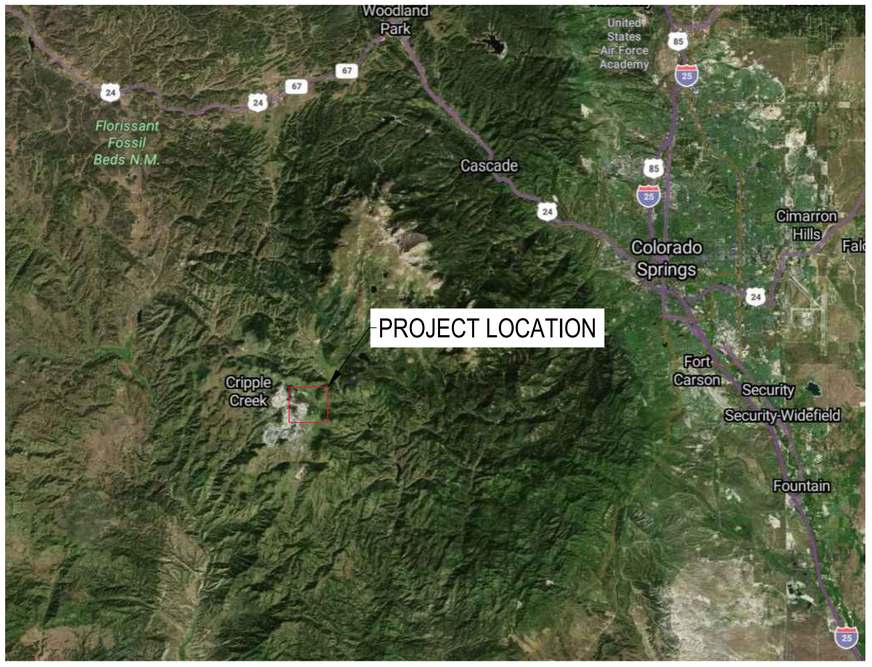
Attachment 3

Newmont™



Contract Drawings For

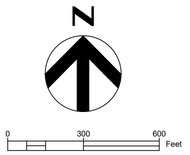
EAST CRESSON OVERBURDEN STORAGE AREA (ECOSA) SEEP MANAGEMENT

SEEP COLLECTION FACILITY DESIGN

Civil

Project No.
10399263

Cripple Creek, CO
MAY 2024



EXCAVATION TYPE	CUBIC YARDS
CUT	4,700
FILL	430
NET	4,270

HDR

PROJECT FOR

NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

MARK	DATE	DESCRIPTION
REV A	05/24/2024	ISSUED FOR REVIEW

PROJECT NUMBER	10399263
ORIGINAL ISSUE	05/01/2024

PROJECT MANAGER	E. GRIMM
PROJECT DESIGNER	
PROJECT ARCHITECT	
LANDSCAPE ARCHITECT	
CIVIL ENGINEER	
STRUCTURAL ENGINEER	
MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

OVERVIEW

SCALE	1" = 300'

SHEET NUMBER

CS100

FILE NAME	10399263-01CS100.DWG

FOR REVIEW

SEE SHEET CS102 FOR CONTINUATION

N

0 50 100 Feet

GENERAL NOTES:

1. SEE SHEET CS300 AND CS301 FOR SEEP COLLECTION DITCH 3/4A PROFILE.
2. CONSTRUCT COLLECTION AREA WITH SLOPED BOTTOM TO FACILITATE PUMPING.

HDR

PROJECT FOR

NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

MARK	DATE	DESCRIPTION
REV A	05/24/2024	ISSUED FOR REVIEW

PROJECT NUMBER	10399263
ORIGINAL ISSUE	05/01/2024

PROJECT MANAGER	E. GRIMM
PROJECT DESIGNER	
PROJECT ARCHITECT	
LANDSCAPE ARCHITECT	
CIVIL ENGINEER	
STRUCTURAL ENGINEER	
MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

ENLARGEMENT 1

SCALE	1" = 50'

SHEET NUMBER

CS101

FILE NAME	10399263-01CS101.DWG

FOR REVIEW

SEE SHEET CS101 FOR CONTINUATION

SEE SHEET CS103 FOR CONTINUATION

N

0 50 100 Feet

GENERAL NOTES:

1. SEE SHEET CS300 AND CS301 FOR SEEP COLLECTION DITCH 3/4A PROFILE.
2. SEE SHEET CS302 FOR SEEP COLLECTION DITCH 3/4B PROFILE.
3. CONSTRUCT COLLECTION AREA WITH SLOPED BOTTOM TO FACILITATE PUMPING TO THE ELEVATIONS PROVIDED.

HDR

PROJECT FOR

NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

MARK	DATE	DESCRIPTION
REV A	05/24/2024	ISSUED FOR REVIEW

PROJECT NUMBER	10399263
ORIGINAL ISSUE	05/01/2024

PROJECT MANAGER	E. GRIMM
PROJECT DESIGNER	
PROJECT ARCHITECT	
LANDSCAPE ARCHITECT	
CIVIL ENGINEER	
STRUCTURAL ENGINEER	
MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

ENLARGEMENT 2

SCALE	1" = 50'

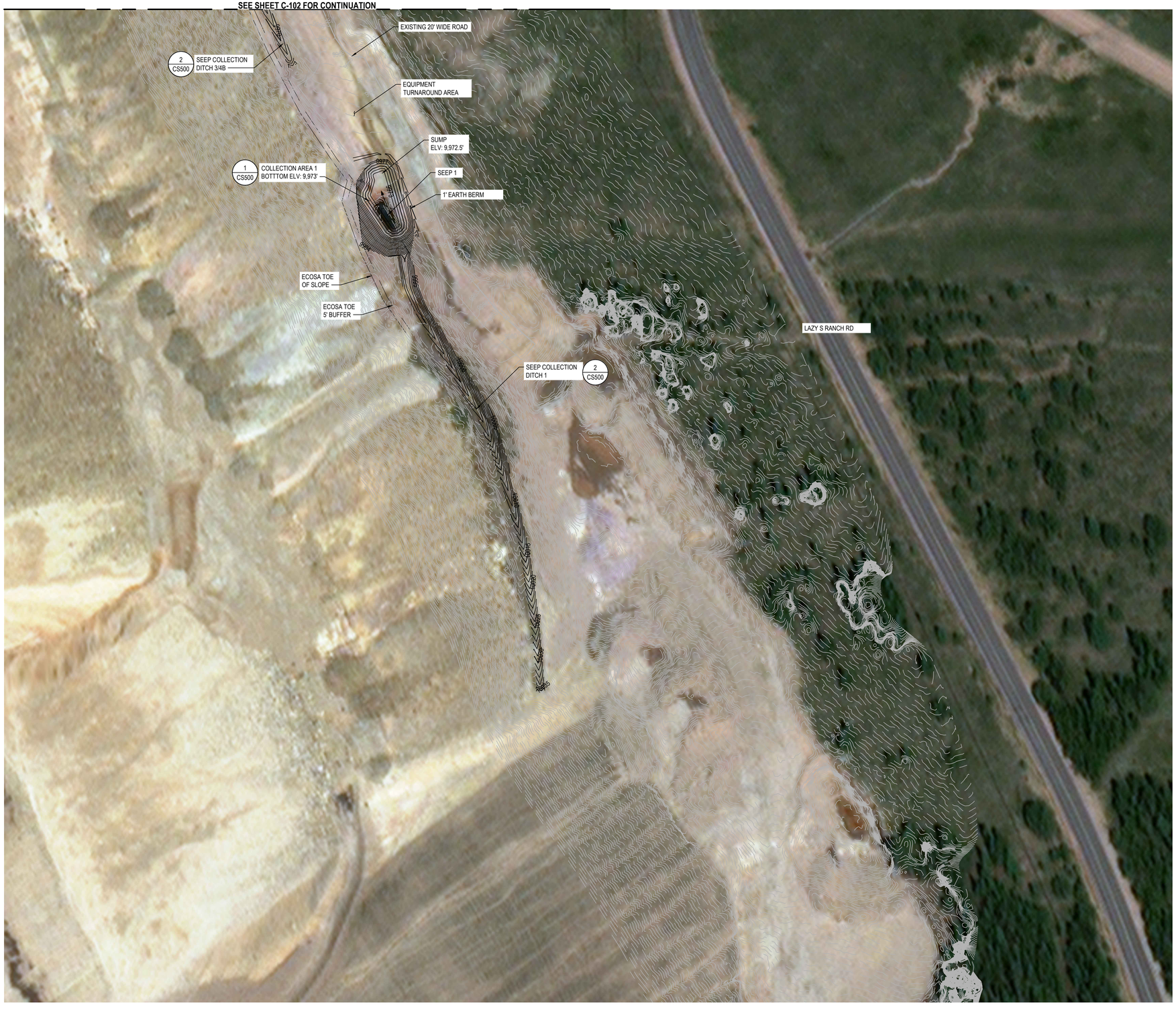
SHEET NUMBER

CS102

FILE NAME	10399263-01CS102.DWG

FOR REVIEW

SEE SHEET C-102 FOR CONTINUATION



N

0 50 100 Feet

GENERAL NOTES:

1. SEE SHEET CS302 FOR SEEP COLLECTION DITCH 3/4B PROFILE.
2. SEE SHEET CS303 FOR SEEP COLLECTION DITCH 1 PROFILE.
3. CONSTRUCT COLLECTION AREA WITH SLOPED BOTTOM TO FACILITATE PUMPING TO THE ELEVATIONS PROVIDED.

HDR

PROJECT FOR

NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

MARK	DATE	DESCRIPTION
REV A	05/24/2024	ISSUED FOR REVIEW

PROJECT NUMBER	10399263
ORIGINAL ISSUE	05/01/2024

PROJECT MANAGER	E. GRIMM
PROJECT DESIGNER	
PROJECT ARCHITECT	
LANDSCAPE ARCHITECT	
CIVIL ENGINEER	
STRUCTURAL ENGINEER	
MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

ENLARGEMENT 3

SCALE	1" = 50'

SHEET NUMBER

CS103

FILE NAME	10399263-01CS103.DWG

FOR REVIEW

N

0 50 100 Feet

GENERAL NOTES:

1. CONSTRUCT COLLECTION AREA WITH SLOPED BOTTOM TO FACILITATE PUMPING TO THE ELEVATIONS PROVIDED.

HDR

PROJECT FOR

NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

MARK	DATE	DESCRIPTION
REV A	05/24/2024	ISSUED FOR REVIEW

PROJECT NUMBER	10399263
ORIGINAL ISSUE	05/01/2024

PROJECT MANAGER	E. GRIMM
PROJECT DESIGNER	
PROJECT ARCHITECT	
LANDSCAPE ARCHITECT	
CIVIL ENGINEER	
STRUCTURAL ENGINEER	
MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

ENLARGEMENT 4

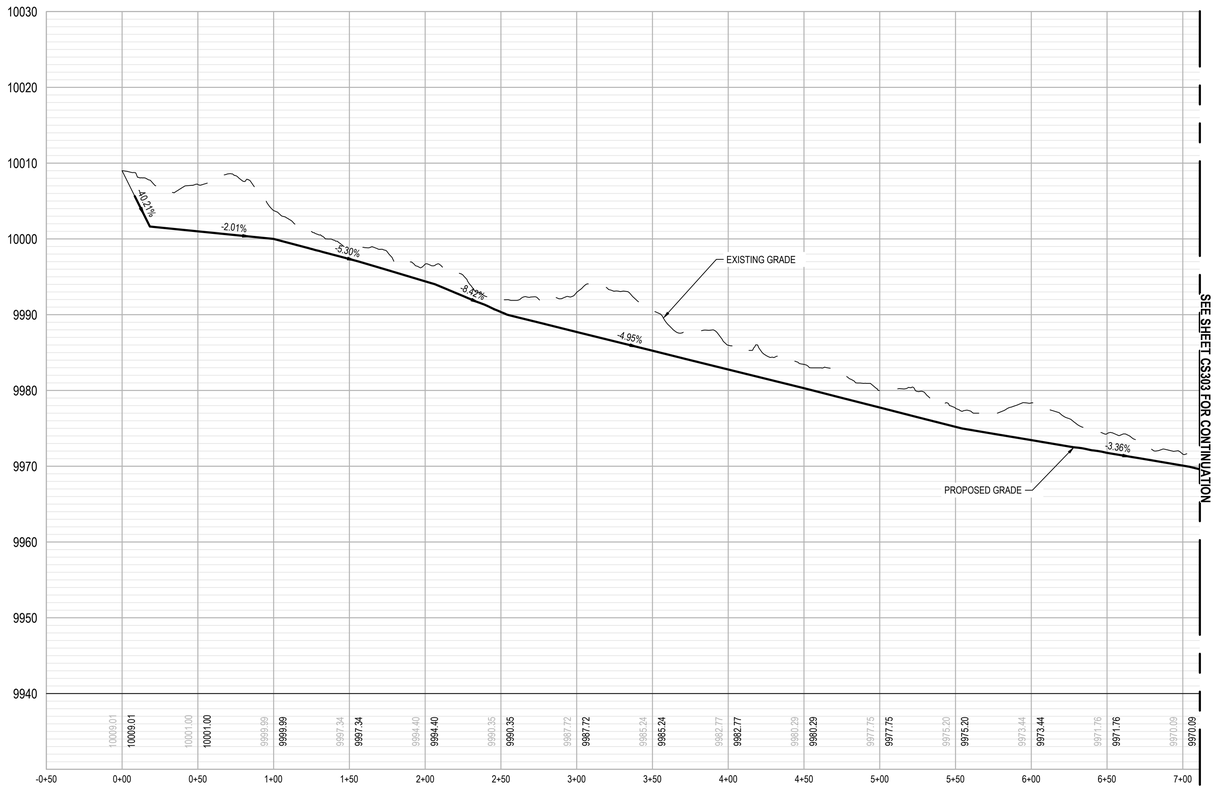
SCALE	1" = 50'

SHEET NUMBER

CS104

FILE NAME	10399263-01CS104.DWG

FOR REVIEW



SEEP COLLECTION
DITCH 3/4A
H: 1" = 50'
V: 1" = 50'

HDR

PROJECT FOR

NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

REV	DATE	DESCRIPTION
A	05/24/2024	ISSUED FOR REVIEW

PROJECT NUMBER	10399263
ORIGINAL ISSUE	05/01/2024

PROJECT MANAGER	E. GRIMM
PROJECT DESIGNER	
PROJECT ARCHITECT	
LANDSCAPE ARCHITECT	
CIVIL ENGINEER	
STRUCTURAL ENGINEER	
MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

SEEP COLLECTION DITCH 3/4A PROFILE

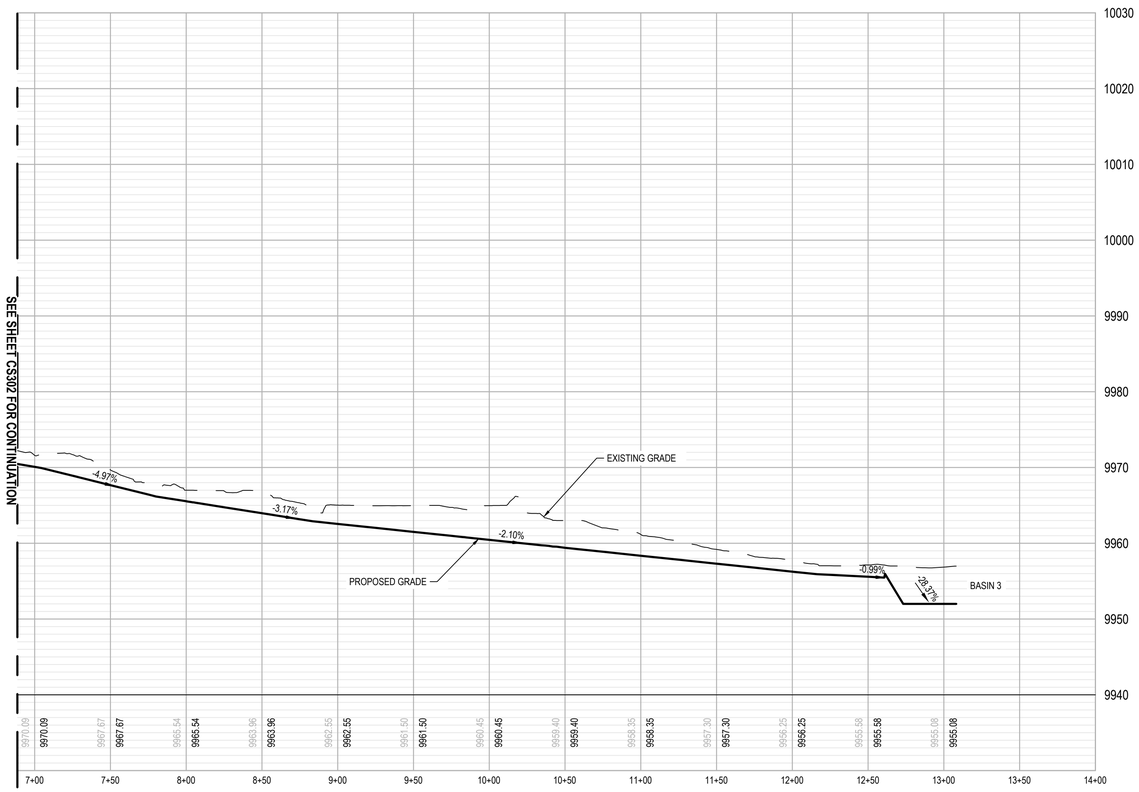
SCALE: AS SHOWN

SHEET NUMBER

CS300

FILE NAME: 10399263-01CS300.DWG

FOR REVIEW



SEEP COLLECTION
DITCH 3/4A
H: 1" = 50'
V: 1" = 50'

HDR

PROJECT FOR

NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

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MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

SEEP COLLECTION DITCH 3/4A PROFILE

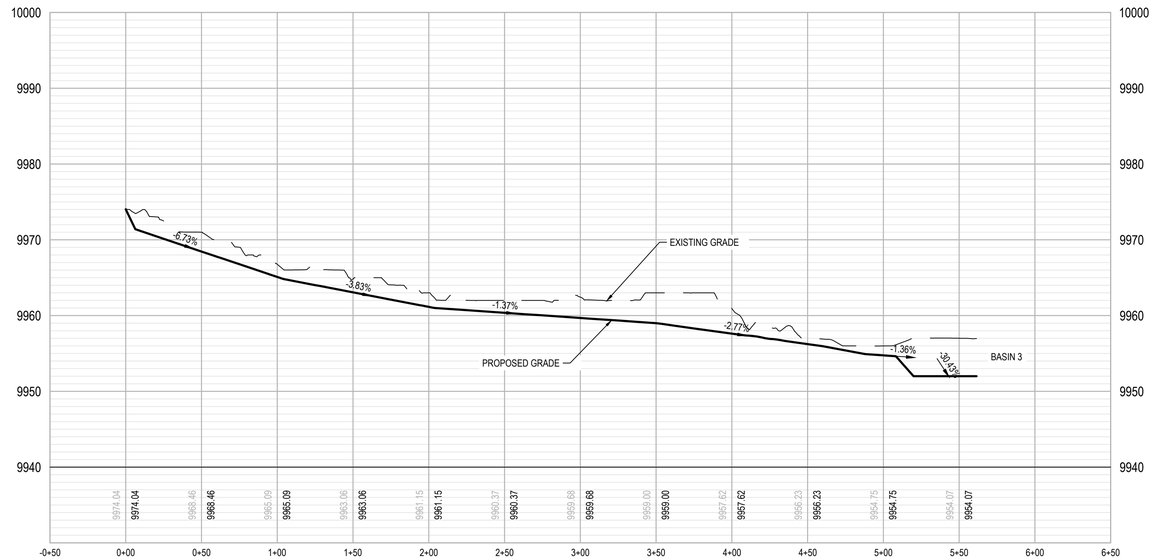
SCALE	AS SHOWN

SHEET NUMBER

CS301

FILE NAME	10399263-01CS301.DWG

FOR REVIEW



SEEP COLLECTION
DITCH 3/4B
H: 1" = 50'
V: 1" = 50'

HDR

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NEWMONT

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PROJECT ARCHITECT	
LANDSCAPE ARCHITECT	
CIVIL ENGINEER	
STRUCTURAL ENGINEER	
MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

SEEP COLLECTION DITCH 3/4B PROFILE

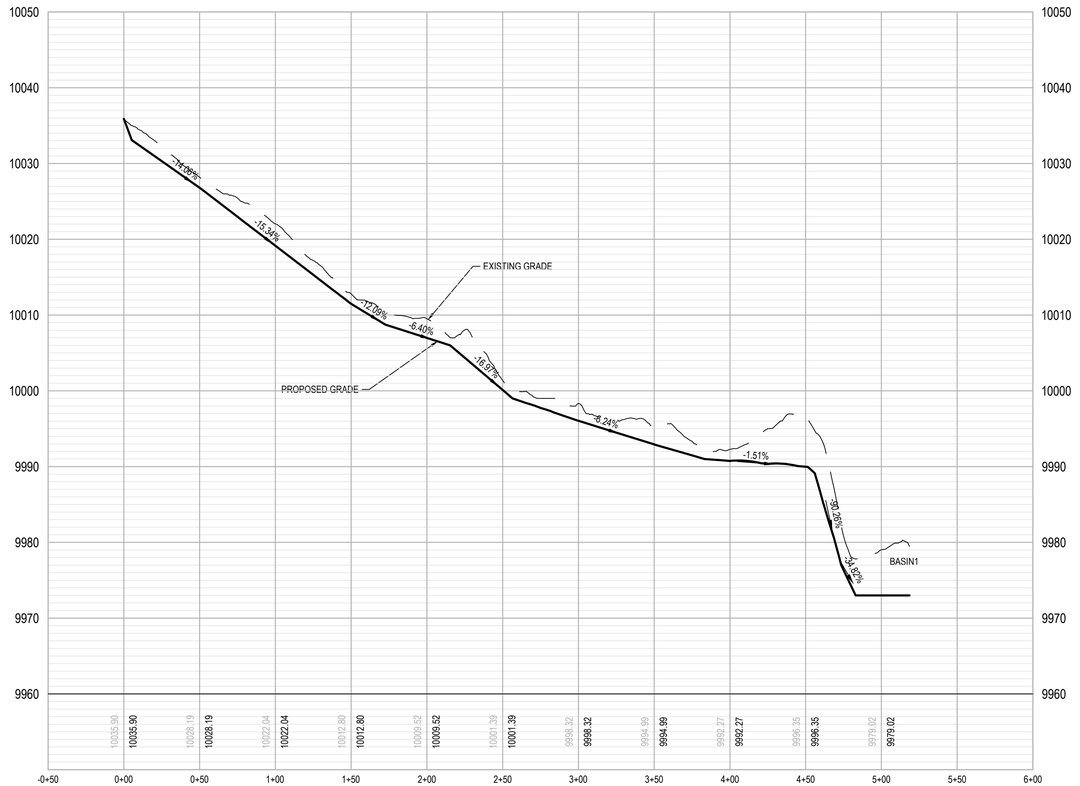
SCALE	AS SHOWN

SHEET NUMBER

CS302

FILE NAME	10399263-01CS302.DWG

FOR REVIEW



SEEP COLLECTION
DITCH 1
H: 1" = 50'
V: 1" = 50'

HDR

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NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

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PROJECT ARCHITECT	
LANDSCAPE ARCHITECT	
CIVIL ENGINEER	
STRUCTURAL ENGINEER	
MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

SEEP COLLECTION DITCH 1 PROFILE

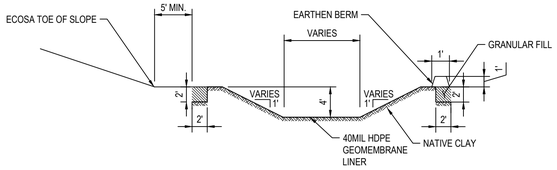
SCALE	AS SHOWN

SHEET NUMBER

CS303

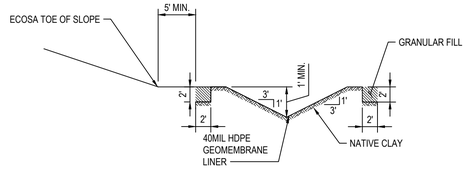
FILE NAME	10399263-01CS303.DWG

FOR REVIEW



SEEP COLLECTION AREA	BOTTOM WIDTH (FT)	VOLUME (CF)	SIDE SLOPE (FT:FT)
AREA 1	19	5,800	2.5:1
AREA 2	5	4,300	2.5:1
AREA 3/4	16	12,900	3:1
AREA 5	19	12,200	2.5:1

1 **SEEP COLLECTION AREA DETAIL**



NOTES:

1. SEE PROFILE SHEETS CS300-CS303 FOR DITCH DEPTH AND SLOPE.

2 **SEEP COLLECTION DITCH DETAIL**

GENERAL NOTES:

1. LINER SHOULD BE PLACED AS TO NOT BLOCK SEEPAGE FLOWS FROM THE ECOSA. COLLECTION AREAS AND DITCHES SHOULD BE EXCAVATED TO THE NATIVE CLAY LAYER, WITH THE LINER PLACED IN THE NATIVE CLAY. EXACT LINER DEPTH WILL BE FIELD VERIFIED BASED ON SOIL TYPE.
2. BIRD BALLS, HALF FILLED WITH WATER, ARE TO BE ADDED TO COLLECTION AREAS TO PROTECT WATERFOWL.
3. SIDE SLOPES TO BE NO GREATER THAN 2.5:1 TO ALLOW FOR EMERGENCY EXIT FOR WILDLIFE.
4. COLLECTION AREA BOTTOM WIDTH MEASURED AT WIDEST PORTION.

HDR

PROJECT FOR

NEWMONT

ECOSA SEEP MANAGMENT

CRIPPLE CREEK, CO

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MECHANICAL ENGINEER	
ELECTRICAL ENGINEER	
INTERIOR DESIGNER	
EQUIPMENT PLANNER	
WAYFINDING	
DRAWN BY	I. MILLER

SHEET NAME

DETAILS

SCALE: NTS

SHEET NUMBER

CS500

FILE NAME: 10399263-01CG500.DWG

FOR REVIEW

DocuSign

Certificate Of Completion

Envelope Id: 387C55FB24404B84934ECE68CE53A15A
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Subject: Complete with DocuSign: 24May2024_TR144 - ECOSA Seepage Collection Improvements.pdf
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Document Pages: 26
Signatures: 1
Certificate Pages: 1
Initials: 0
AutoNav: Enabled
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Envelope Originator:
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666 Burrard Street
Suite 3400
Vancouver, BC V6C 2X8
Antonio.Matarrese@newmont.com
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Katie Blake Katie.Blake@Newmont.com S&ER Manager Newmont Corporation Security Level: Email, Account Authentication (None)	DocuSigned by: Katie Blake 5A3D013B629844B... Signature Adoption: Pre-selected Style Using IP Address: 208.85.176.79 Signed using mobile	Sent: 5/24/2024 6:15:49 AM Viewed: 5/24/2024 6:51:03 AM Signed: 5/24/2024 6:51:17 AM

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In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

Agent Delivery Events	Status	Timestamp

Intermediary Delivery Events	Status	Timestamp

Certified Delivery Events	Status	Timestamp

Carbon Copy Events	Status	Timestamp

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
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Certified Delivered	Security Checked	5/24/2024 6:51:03 AM
Signing Complete	Security Checked	5/24/2024 6:51:17 AM
Completed	Security Checked	5/24/2024 6:51:17 AM

Payment Events	Status	Timestamps