# MEMORANDUM

**TO:** Twin Pines Minerals LLC

**CC:** Messrs. Lewis Jones and John Fortuna
Jones Fortuna LP

**FROM:** Ron Borrego, PE
Pat Galvin, PE

**RE:** Water Management Pond Evaporation Analysis
Sauders Demonstration Mine
Twin Pines Minerals – Charlton County, Georgia

## INTRODUCTION

A Water Management Pond evaporation analysis was performed to evaluate the ability of two different evaporation systems to manage seepage water generated during the excavation and processing of mineral-bearing sands at the Sauders Demonstration Mine in Charlton County, Georgia.

The Water Management Ponds will provide a continuous supply of 300 gallons per minute (gpm) to be used as mine process water and manage seepage water removed from the active mine pit while maintaining sufficient freeboard to capture and store all precipitation accumulated during a 1,000-year 60-dayevent (the 60-day accumulation projected to be exceeded only once during any 1,000-year period). The pond system will be managed to ensure no water is discharged from the site.

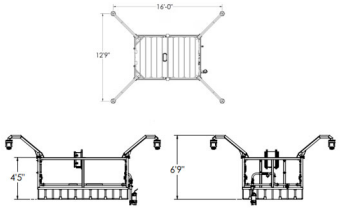
This memorandum references the Water Use Management Plan – Sauders Demonstration Mine prepared by Wood, November 28, 2022 (Wood 2022, Revised 2023).

## EVAPORATION SYSTEMS

Two evaporation systems were evaluated that use very different operating principles.

The first uses atomizing spray heads that can operate from 0 to 15,000 rpm and generate water droplets that range from 70 to 120 microns in size. This system uses 167 floating platforms (668 atomizing spray heads) to evaporate 1,000 gpm. This system is configured so an additional 26 units could be installed if needed. The 167 floating platforms displace a total of approximately 22,000 gallons of water.

| ENVIRONMENTAL CONDITIONS - SAINT GEORGE, GA | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Relative Humidity | 72% | 74% | 70% | 71% | 71% | 75% | 75% | 77% | 77% | 75% | 75% | 78% |
| Barometric Pressure ("Hg) | 30.15 | 30.11 | 30.09 | 30.03 | 30.02 | 29.98 | 30.01 | 29.98 | 29.98 | 30.01 | 30.11 | 30.12 |
| Average Temp High (°F) | 62.2 | 67.3 | 72.9 | 80.1 | 86 | 90.1 | 92.3 | 91.8 | 87.6 | 80.4 | 71.2 | 66.2 |
| Average Temp Low (°F) | 44.4 | 48.6 | 52.9 | 60.4 | 66.4 | 72.1 | 74.7 | 75 | 71.8 | 63.1 | 53.1 | 49.8 |
| Average Wind Speed (mph) | 5.5 | 5.7 | 5.7 | 5.8 | 5.2 | 4.7 | 4.5 | 4.3 | 4.8 | 5.3 | 5.4 | 5.4 |
| Max Wind Speed (mph) | 5.9 | 6.1 | 6.2 | 6.3 | 5.7 | 5.2 | 4.8 | 4.8 | 4.9 | 5.9 | 58 | 5.9 |



The concept of drift management with mechanically enhanced evaporation is that the water droplets evaporate and salt crystals drop out within the perimeter of the water management pond. The above table lists regional environmental conditions that can enhance or limit the

evaporation of pond water droplets depending on the meteorological values or combination of values.

In a 2016 study conducted by Ohio State University, it is predicted that a 100-micron droplet subjected to a wind speed of 5 mph, 75 degrees F, and 70 percent humidity will travel 8.3 feet and land on the ground surface before evaporating. Alternatively, a 50-micron droplet subjected to a wind speed of 5 mph, 75 degrees F, and 70 percent humidity will travel 41.53 feet and will evaporate completely and drop out salt crystals before hitting the ground. This suggests a 75-micron droplet in the same environmental conditions will travel approximately 25 feet and may not evaporate before hitting the ground.

With the limited information available for this review, it appears there is a potential for droplets atomized by this system to drift and deposit pond water and/or salt crystals (under certain conditions) outside of the pond perimeter. With this technology as configured, complete evaporation of 1,000 gpm may not be possible under all conditions. For these reasons this spray head evaporation technology was not considered further.

The second technology evaluated uses Evaporative Matrix Technology to use radiant solar energy for evaporation. This technology mimics cloud formation by increasing convection, rapid evaporation, and high humidity within a closed system. This technology does not generate water droplets that can drift and deposit outside of the pond system. The manufacturer of this technology is EcoVAP, Inc.

The first generation of this technology was performance tested in 2017 under the observation of Golder Associates at a site in Myton, UT. In this test, the Evaporative Matrix Technology enhanced natural evaporation by 59 times. Generation 3 of this technology is now available with enhanced performance predicted by the vendor.

The latest version of this technology was performance tested in June 2022 at site in Alamagordo, NM under the observation of U.S. Bureau of Reclamation. In this test, the Evaporative Matrix Technology enhanced natural evaporation by 63 times

Performance data on this technology is also available from the following projects consistent with the data used in the analysis performed for this memorandum.

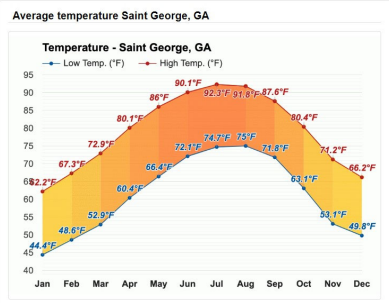
CA - Rare Earth Mineral Mining Co. - 4 years running and 10-year expansion underway
WY - Oil and Gas Operation - 5 Years
UT - Oil and Operations - 5 Years
MT - Utility Operation - 4 years
NM - Government Project - 2 years
TX - Oil and Gas Deployment - 5 years in Operation

## Increase in Pond Total Dissolved Solids (TDS)

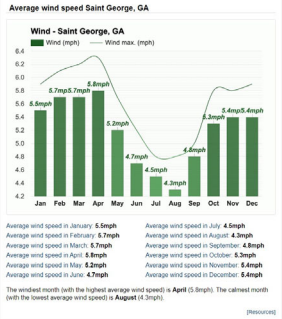
The manufacturer of the Evaporative Matrix Technology states that it has pilot testing experience where water with a TDS of 180,000 to 200,000 ppm was evaporated. The manufacturer claims that evaporating water up to 300,000 ppm is possible. Considering this experience, increasing pond TDS during pond operation is not expected to be an issue. Management of accumulated water management pond solids is discussed in a later section in this memorandum, Pond Operation and Solids Management.

## Temperature, Humidity and Windspeed

These data were obtained from weather-us.com.



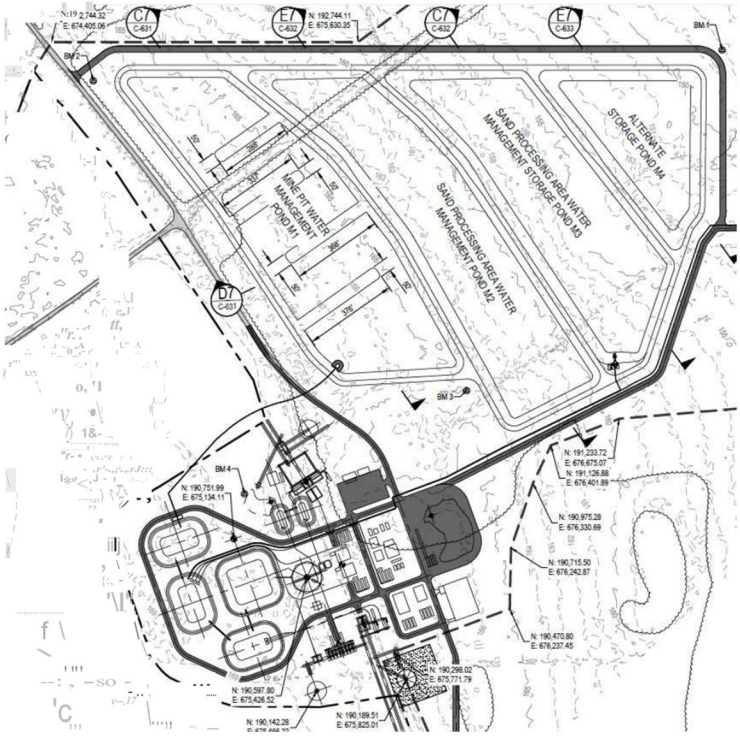





## WATER MANAGEMENT POND DETAILS

The four Water Management Ponds have a total surface area of 49.8 acres and a total volume of 146.7 million gallons (MG). This pond system was designed to have a working storage capacity of 111.9 MG and a normal operating capacity (at a depth of 5 feet) of 59.4 MG.

| | Area (acres) | Area (ft2) | Total Volume (gal) | Maximum Working Volume (gal) | Normal Operating Capacity (5 ft of depth - gal) |
|---|---|---|---|---|---|
| | | | | | |
| Water Management Pond 1 | 17.1 | 744,876 | 51,153,368 | 38,356,811 | 20,363,631 |
| Water Management Pond 2 | 14.1 | 614,196 | 41,256,921 | 32,160,837 | 17,074,188 |
| Water Management Pond 3 | 12.6 | 548,856 | 37,084,466 | 28,670,896 | 15,221,379 |
| Water Management Pond 4 | 6.0 | 261,360 | 17,246,725 | 12,697,470 | 6,741,087 |
| | | | | | |
| TOTAL | 49.8 | 2,169,288 | 146,741,480 | 111,886,014 | 59,400,285 |



## POND INFLOW CALCULATIONS

The Water Management Ponds are designed to receive water from seepage during mining operations while maintaining sufficient freeboard to capture and store all precipitation accumulated during a 1,000-year 60-day storm event.

### Mine Seepage

GSI conservatively estimates the average seepage rate over the entire proposed mine area to be 783 gpm. For the purposes of this evaporation analysis, this inflow flowrate is assumed to be 1,000 gpm.

### Precipitation

Rainfall data was obtained from the National Oceanic and Atmospheric Administration (NOAA) – National Weather Service for Jacksonville Area, FL for the year 2022.

**Monthly Total Precipitation for Jacksonville Area, FL (ThreadEx)**

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2023 | 2.18 | 1.42 | 3.33 | M | M | M | M | M | M | M | M | M | M |
| 2022 | 1.18 | 2.09 | 9.95 | 5.22 | 4.88 | 1.17 | 9.95 | 10.40 | 5.53 | 1.60 | 3.02 | 0.25 | 55.24 |

### Stockpile Runoff

Water draining from wet material in the stockpile staging area will be captured and pumped to the Process Water Ponds, and any overflow from the Process Water Ponds will report to the Water Management Ponds. The berms around the stockpile staging area are not intended to control stormwater, but a portion of any precipitation falling within the pond berms will be collected and pumped to the Process Water Ponds along with the seepage water. Because the stockpile area is small, the contribution from precipitation will be minimal. For the purposes of this evaporation analysis, this volume is assumed to be 2 percent of normal monthly precipitation.

### Stormwater Management

Stormwater will be managed in accordance with the Georgia EPD's Industrial Stormwater General Permit. The Water Management Ponds will not be used to manage and will not receive stormwater runoff. The estimated storm event volumes falling directly into the pond system are listed below. These storm water volumes were obtained from the *Water Management Ponds Hydrology and Hydraulic Analysis Report* by Wood, May 2022.

| Storm Event Frequency/Duration | Storm Depth | Volume |
|---|---|---|
| 25-year - 24-hour event | 16.52 inches of rainfall | 22,338,171 gallons |
| 100-year – 24-hour event | 19.53 inches of rainfall | 26,408,261 gallons |
| 1,000-year – 60-day event | 38.20 inches of rainfall | 51,653,640 gallons |

Storm event volumes were added to a simulation spreadsheet (described later in this memorandum) during the months of March and April, typically months of low evaporation where the storm volumes would make the most impact and be worst case for analysis.

## POND OUTFLOW CALCULATIONS

Water Management Pond volumes will be managed by consumptive demand and evaporation. No water from the pond system will be discharged from the site and there will be no discharge to waters of the State or of the United States.

### Consumptive Demand

Approximately 300 gpm of water will be continually consumed in the mining process. Process water will be withdrawn from the Process Water Ponds at an approximate rate of 3,000 gpm, but only approximately 10% will be consumed and the rest will be returned to the ponds to be reused.

### Evaporation

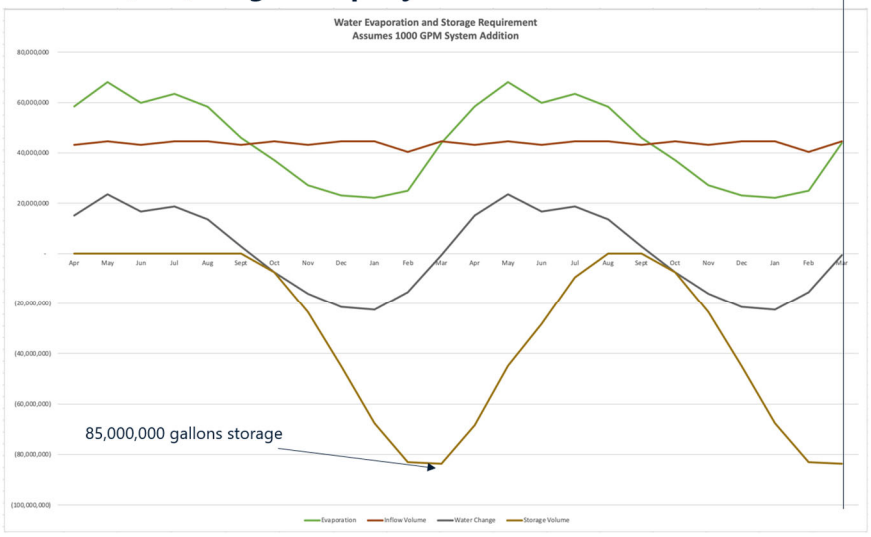
Evaporation values for the Evaporative Matrix Technology are provided in the table and figure below. This was estimated considering the published climatological conditions in Saint George, GA. This was used as the basis for evaporation values in the simulation spreadsheet.

ecoVAP™ **TWIN PINES WATER BALANCE CALCULATION**

| Month | AGPM | PAN (in.) |
|---|---|---|
| Jan | 495 | 2.76 |
| Feb | 618 | 3.45 |
| Mar | 986 | 5.50 |
| Apr | 1,352 | 7.54 |
| May | 1,528 | 8.52 |
| Jun | 1,386 | 7.73 |
| Jul | 1,421 | 7.92 |
| Aug | 1,306 | 7.28 |
| Sep | 1,065 | 5.94 |
| Oct | 832 | 4.64 |
| Nov | 628 | 3.50 |
| Dec | 518 | 2.89 |

**1,440,000 Average gallons/day (1,000 gpm)**
**~525,600,000 gallons per year**

Cycle Repeats



## WATER MANAGEMENT POND EVAPORATION SIMULATION

A spreadsheet was developed to simulate pond performance over a two-year period. This duration was chosen to ensure any residual pond storage is included in the calculation. This residual volume might be otherwise be overlooked in a single year analysis. In addition, it is assumed at the beginning of the analysis period that pond starts with the estimated normal operating capacity of 59.4 MG (Wood 2022).

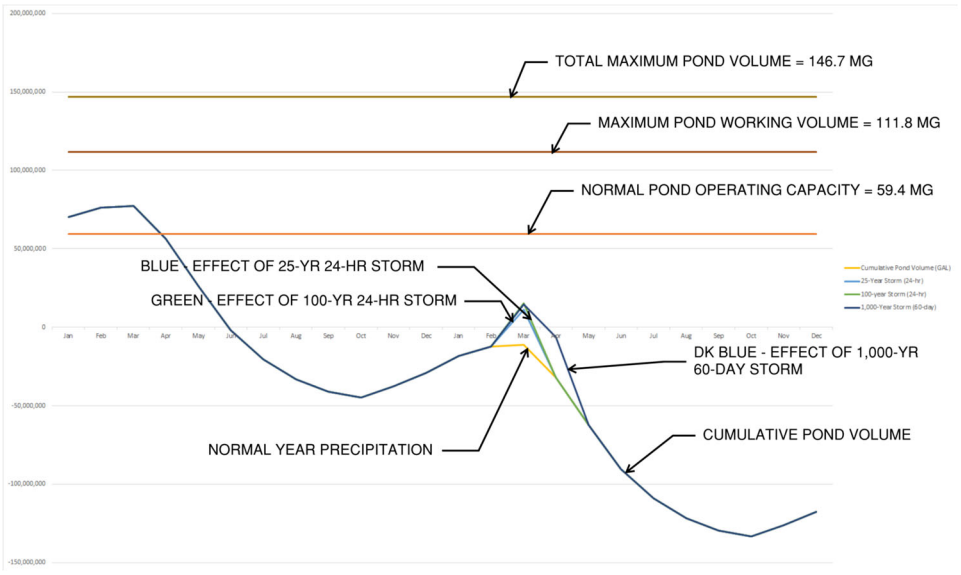
GSI Environmental

Twin Pine Metals - Saunders Demonstration Mine
**WATER MANAGEMENT POND ANALYSIS**

April 24, 2023

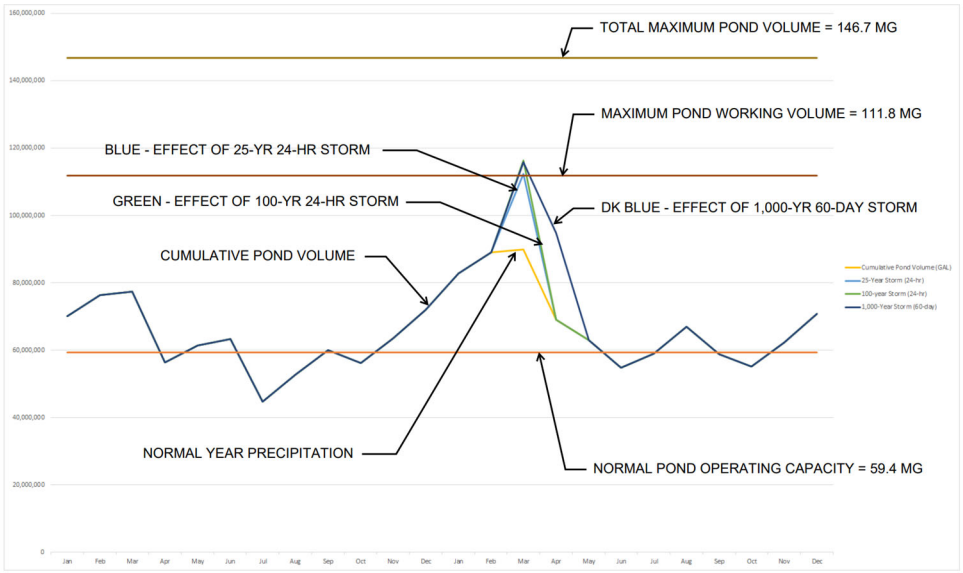
| | Starting Volume (GAL) | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WASTE MANAGEMENT POND INFLOW** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Seepage Water (GPM) | | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Seepage Water (GAL) | | 44,640,000 | 40,320,000 | 44,640,000 | 43,200,000 | 44,640,000 | 43,200,000 | 44,640,000 | 44,640,000 | 43,200,000 | 44,640,000 | 43,200,000 | 44,640,000 | 44,640,000 | 40,320,000 | 44,640,000 | 43,200,000 | 44,640,000 | 43,200,000 | 44,640,000 | 44,640,000 | 43,200,000 | 44,640,000 | 43,200,000 | 44,640,000 |
| Precipitation (IN) | | 1.18 | 2.09 | 9.95 | 5.22 | 4.88 | 1.17 | 9.95 | 10.40 | 5.53 | 1.60 | 3.02 | 0.25 | 1.18 | 2.09 | 9.95 | 5.22 | 4.88 | 1.17 | 9.95 | 10.40 | 5.53 | 1.60 | 3.02 | 0.25 |
| Precipitation (FT) | | 0.10 | 0.17 | 0.83 | 0.44 | 0.41 | 0.10 | 0.83 | 0.87 | 0.46 | 0.13 | 0.25 | 0.02 | 0.10 | 0.17 | 0.83 | 0.44 | 0.41 | 0.10 | 0.83 | 0.87 | 0.46 | 0.13 | 0.25 | 0.02 |
| Precipitation (GAL) | | 1,595,584 | 2,826,076 | 13,454,286 | 7,058,429 | 6,598,685 | 1,582,062 | 13,454,286 | 14,062,771 | 7,477,608 | 2,163,503 | 4,083,612 | 338,047 | 1,595,584 | 2,826,076 | 13,454,286 | 7,058,429 | 6,598,685 | 1,582,062 | 13,454,286 | 14,062,771 | 7,477,608 | 2,163,503 | 4,083,612 | 338,047 |
| Stockpile Runoff (2% of Precip) | | 31,912 | 56,522 | 269,086 | 141,169 | 131,974 | 31,641 | 269,086 | 281,255 | 149,552 | 43,270 | 81,672 | 6,761 | 31,912 | 56,522 | 269,086 | 141,169 | 131,974 | 31,641 | 269,086 | 281,255 | 149,552 | 43,270 | 81,672 | 6,761 |
| **TOTAL POND INFLOW** | | **46,267,495** | **43,202,598** | **58,363,371** | **50,399,598** | **51,370,659** | **44,813,703** | **58,363,371** | **58,984,026** | **50,827,160** | **46,846,773** | **47,365,285** | **44,984,808** | **46,267,495** | **43,202,598** | **58,363,371** | **50,399,598** | **51,370,659** | **44,813,703** | **58,363,371** | **58,984,026** | **50,827,160** | **46,846,773** | **47,365,285** | **44,984,808** |
| **WASTE MANAGEMENT POND OUTFLOW** | | | | | | | | | | | | | | | | | | | | | | | | | |
| EcoVAP Evaporation Rate (gpm) | | 495 | 618 | 986 | 1,352 | 1,528 | 1,386 | 1,421 | 1,306 | 1,065 | 832 | 628 | 518 | 495 | 618 | 986 | 1,352 | 1,528 | 1,386 | 1,421 | 1,306 | 1,065 | 832 | 628 | 518 |
| Days **IN** Month | | 31 | 28 | 31 | 30 | 31 | 30 | 31 | 31 | 30 | 31 | 30 | 31 | 31 | 28 | 31 | 30 | 31 | 30 | 31 | 31 | 30 | 31 | 30 | 31 |
| Days Evaporation **PER** Month | | 31 | 28 | 31 | 30 | **15** | **15** | 31 | 20 | 20 | **31** | 30 | 31 | 31 | 28 | 31 | 30 | 20 | **20** | **20** | **20** | 30 | 31 | 30 | 31 |
| EcoVAP Monthly Evaporation (gal) | | 22,096,800 | 24,917,760 | 44,015,040 | 58,406,400 | 33,004,800 | 29,937,600 | 63,433,440 | 37,612,800 | 30,672,000 | 37,140,480 | 27,129,600 | 23,123,520 | 22,096,800 | 24,917,760 | 44,015,040 | 58,406,400 | 44,006,400 | 39,916,800 | 40,924,800 | 37,612,800 | 46,008,000 | 37,140,480 | 27,129,600 | 23,123,520 |
| Consumptive Demand (300-gpm) | | 13,392,000 | 12,096,000 | 13,392,000 | 12,960,000 | 13,392,000 | 12,960,000 | 13,392,000 | 13,392,000 | 12,960,000 | 13,392,000 | 12,960,000 | 13,392,000 | 13,392,000 | 12,096,000 | 13,392,000 | 12,960,000 | 13,392,000 | 12,960,000 | 13,392,000 | 13,392,000 | 12,960,000 | 13,392,000 | 12,960,000 | 13,392,000 |
| **TOTAL POND OUTFLOW** | | **35,488,800** | **37,013,760** | **57,407,040** | **71,366,400** | **46,396,800** | **42,897,600** | **76,825,440** | **51,004,800** | **43,632,000** | **50,532,480** | **40,089,600** | **36,515,520** | **35,488,800** | **37,013,760** | **57,407,040** | **71,366,400** | **57,398,400** | **52,876,800** | **54,316,800** | **51,004,800** | **58,968,000** | **50,532,480** | **40,089,600** | **36,515,520** |
| **WASTE MANAGEMENT POND VOLUME** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Water Balance (GAL) | | 10,778,695 | 6,388,838 | 956,331 | (20,966,802) | 4,973,859 | 1,916,103 | (18,462,069) | 7,979,226 | 7,195,160 | (3,685,707) | 7,275,685 | 8,469,288 | 10,778,695 | 6,188,838 | 956,331 | (20,966,802) | (6,027,741) | (8,063,097) | 4,046,571 | 7,979,226 | (8,140,840) | (3,685,707) | 7,275,685 | 8,469,288 |
| Cumulative Pond Volume (GAL) | **59,400,285** | **70,178,980** | **76,567,818** | **77,324,149** | **56,357,347** | **61,331,206** | **63,247,309** | **44,785,240** | **52,764,467** | **59,959,627** | **56,273,920** | **63,549,605** | **72,018,893** | **82,797,588** | **88,986,426** | **89,942,757** | **68,975,955** | **62,948,214** | **54,885,117** | **58,931,688** | **66,910,915** | **58,770,075** | **55,084,368** | **62,360,053** | **70,829,341** |
| **POND VOLUME INCLUDING PERIODIC STORM EVENTS** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (Inches) | | | | | | | | | | | | | | | | | | | | | | | | |
| 25-Year Storm (24-hr) | 16.52 | | | | | | | | | | | | | | | 22,338,171 | | | | | | | | | |
| Cumulative Pond Volume (GAL) | | 70,178,980 | 76,367,818 | 77,324,149 | 56,357,347 | 61,331,206 | 63,247,309 | 44,785,240 | 52,764,467 | 59,959,627 | 56,273,920 | 63,549,605 | 72,018,893 | 82,797,588 | 88,986,426 | 112,280,928 | 68,975,955 | 62,948,214 | 54,885,117 | 58,931,688 | 66,910,915 | 58,770,075 | 55,084,368 | 62,360,053 | 70,829,341 |
| 100-year Storm (24-hr) | 19.53 | | | | | | | | | | | | | | | 26,408,261 | | | | | | | | | |
| Cumulative Pond Volume (GAL) | | 70,178,980 | 76,367,818 | 77,324,149 | 56,357,347 | 61,331,206 | 63,247,309 | 44,785,240 | 52,764,467 | 59,959,627 | 56,273,920 | 63,549,605 | 72,018,893 | 82,797,588 | 88,986,426 | 116,351,018 | 68,975,955 | 62,948,214 | 54,885,117 | 58,931,688 | 66,910,915 | 58,770,075 | 55,084,368 | 62,360,053 | 70,829,341 |
| 1,000-Year Storm (60-day) | 38.20 | | | | | | | | | | | | | | | 25,826,820 | 51,653,640 | | | | | | | | |
| Cumulative Pond Volume (GAL) | | 70,178,980 | 76,367,818 | 77,324,149 | 56,357,347 | 61,331,206 | 63,247,309 | 44,785,240 | 52,764,467 | 59,959,627 | 56,273,920 | 63,549,605 | 72,018,893 | 82,797,588 | 88,986,426 | 115,769,577 | 120,629,595 | 62,948,214 | 54,885,117 | 58,931,688 | 66,910,915 | 58,770,075 | 55,084,368 | 62,360,053 | 70,829,341 |

In the first round of calculations using the full evaporative capacity of the Evaporative Matrix Technology, the pond volume is predicted to drop below zero gallons in June of the first year, indicating the proposed evaporation system was oversized. This behavior is shown graphically in the following figure.




To address this behavior, the number of days per month the evaporators are used in the months of May, June, August and September in Year 1 and May, June, July and August in Year 2 are reduced by 30 to 50 percent to adjust the average retained pond volume to hold between the normal pond operating capacity of 59.4 MG and the maximum pond working volume of 111.8

MG. Months with reduced days of evaporator operation are show in green cells in the previous spreadsheet table graphic.




The above figure shows the condition of normal year precipitation resulting in retained pond volume between 44.8 MG and 89.9 MG. The effects of the 1,000-year 60-day accumulation increase the retained pond volume to 115.8 MG, approximately 3 percent over the maximum pond working volume of 111.8 MG. These values take into consideration the reduction in evaporator operating days during four months of each year in the simulation.

## POND OPERATION AND SOLIDS MANAGEMENT

Information on Water Management Pond operation and solids management is adapted from a discussion on this topic from the Water Use Management Plan (Wood 2022) updated by GSI on September 29, 2023.

Pond operation will be monitored closely by field staff, and a set of procedures to actively manage pond water levels will be developed and implemented. In the selection and evaluation phase of evaporator selection, the EcoVAP system was selected as it has the capability to evaporate all water at the site was that reports to the Water Management Pond system including storm water volumes that fall on the pond system during a 1,000-year, 60-day storm event.

Management of pond water levels has three safety factors.

1. The evaporation system is oversized since the design is based on 783 gpm of process water pump pumped to the ponds, and the evaporation system is designed for 1,000 gpm.
2. Evaporation rates in May through August of each year when local climatological conditions offer maximum natural evaporation, and the evaporation system will be operated for only a portion of the days in those four months so the water levels in the Water Management Pond do not drop below the normal pond operating capacity, or in some cases completely dry out the ponds.
3. Evaporation simulation analysis assumes water levels will be maintained between the maximum pond working volume (111.8 MG) and the normal pond operating capacity

(59.4 MG). There is an additional 34.9 MG of pond capacity beyond the maximum pond working volume up to the total maximum pond volume (146.7 MG) that is available in an emergency before the pond system overflows.

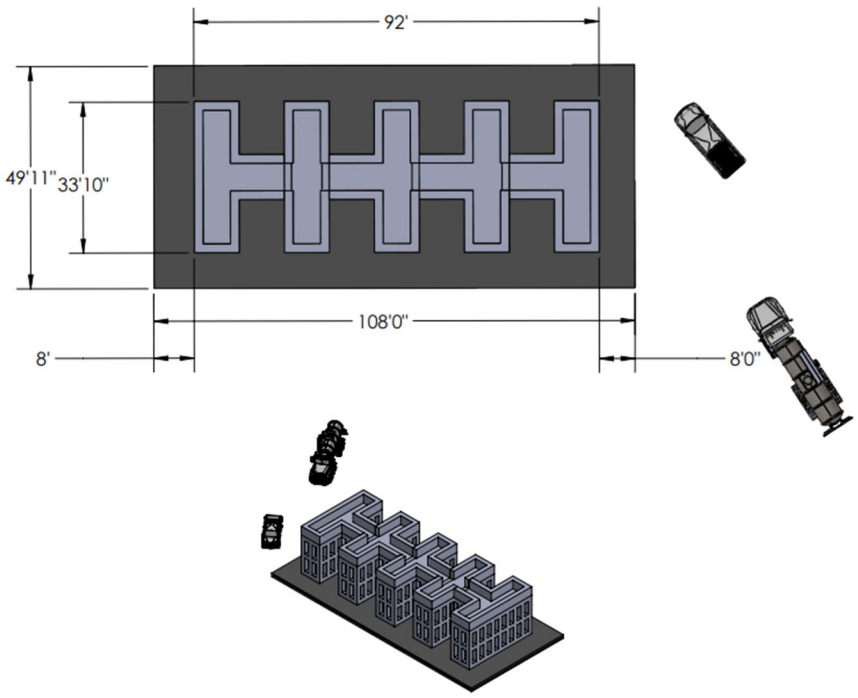
To address closely spaced multiple storm events, mine operations will monitor regional weather development and actively manage pond water levels, and potentially lower the pond level below the normal pond operating capacity to create additional pond storage to accommodate anticipated storm water volume.

As pond operation proceeds, water containing dissolved solids will report to the Water Management Pond system, and over time the concentration of total dissolved solids (TDS) in the ponds will increase. Mine operations will monitor pond TDS, and when the concentration of TDS reaches approximately 175,000 ppm, the collected sludge and pond water will be dredged using vacuum dredging from each pond sequentially, on an “as needed” basis, and will be conveyed to a location where the sludge can be dewatered and mixed with backfill for the mine pit. Filtrate from the dewatering operations will be returned to the Water Management Ponds.

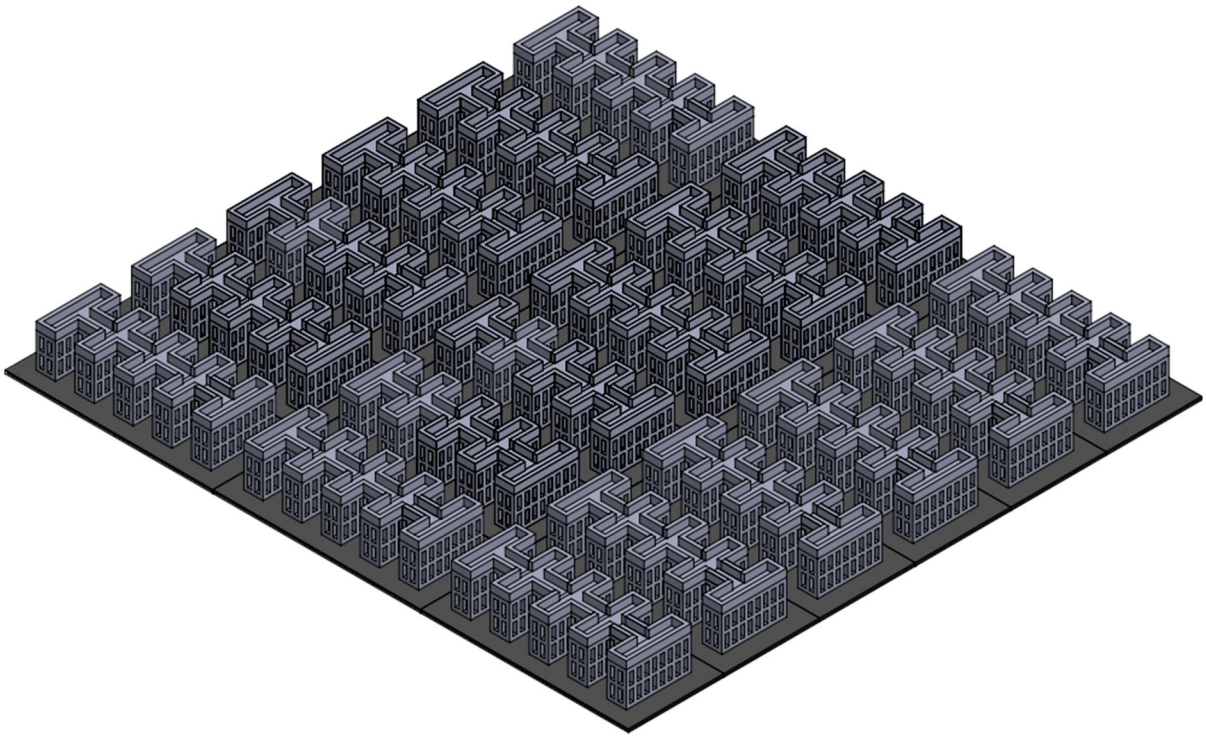
## CONCLUSION

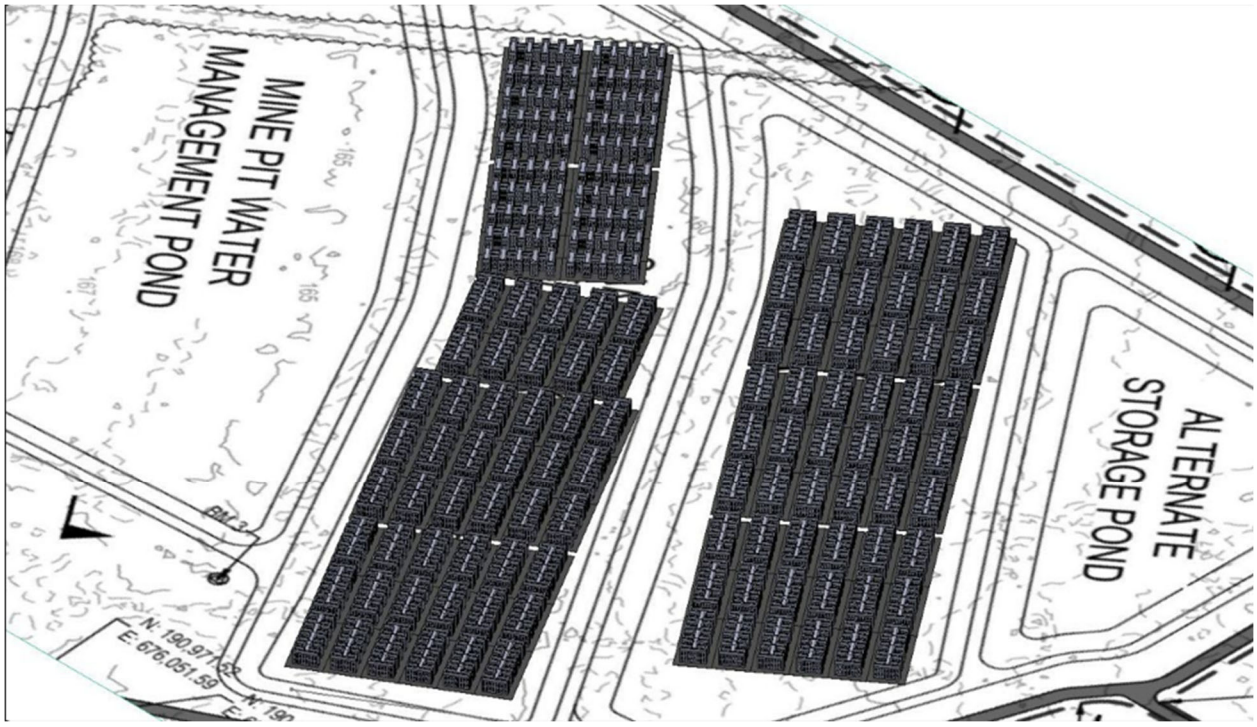
The pond evaporation analysis was performed using the climatological conditions of Saint George, GA water management estimates provided in the *Water Management Ponds Hydrology and Hydraulic Analysis Report* (Wood-May 2022), and *Water Use Management Plan* (Wood 2022, Revised 2023) combined with mine water seepage estimates presented in the Addendum to *Modeling the Groundwater Flow System at the Proposed Twin Pines Mine on Trail Ridge* (GSI-November 9, 2022). This evaporation analysis concludes that the Evaporative Matrix Technology performance as presented by EcoVAP, Inc. in data provided on April 10, 2023 is capable of meeting the evaporative demand established by mine operations as described in this memorandum. This performance is supplemented by additional evaporative capacity that would be achieved by employing full evaporator operations in all months, and by maintaining an additional 25 percent emergency pond capacity beyond the pond maximum working volume.

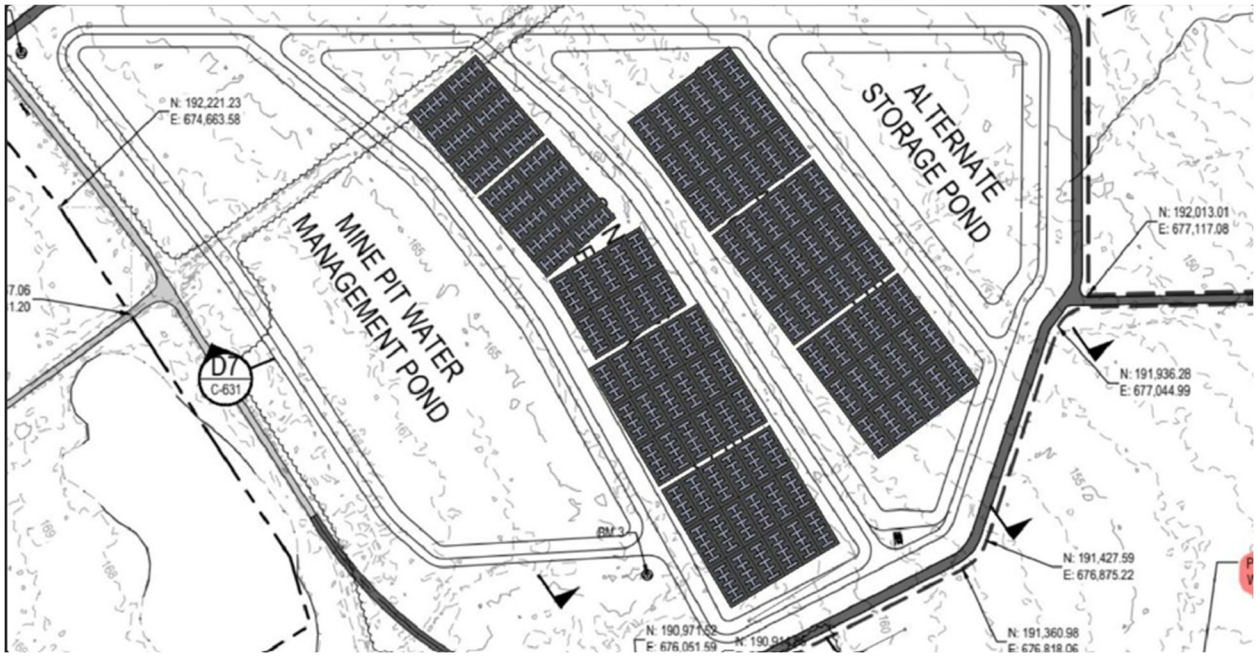
## ADDITIONAL EVAPORATIVE MATRIX TECHNOLOGY DETAILS




6X3 CONFIGURATION




MINE PIT WATER MANAGEMENT POND
ALTERNATE STORAGE POND
BM 3
N: 190,971.02
E: 676,051.59


N: 192,221.23
E: 674,663.58
MINE PIT WATER MANAGEMENT POND
ALTERNATE STORAGE POND
N: 192,013.01
E: 677,117.08
7.06
1.20
D7
C-631
N: 191,936.28
E: 677,044.99
BM 3
N: 191,427.59
E: 676,875.22
N: 190,971.02
E: 676,051.59
N: 191,360.98