FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: EP MINERALS CLARK MINE

9785 GATEWAY DRIVE
RENO, NV 89521

Permit Number: NS2018503

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: EP MINERALS CLARK MINE, STOREY
640 CLARK STATION RD, SPARKS, NV 89434
LATITUDE: 39.558577, LONGITUDE: -119.409461
TOWNSHIP: 20N, RANGE: 23E, SECTION: 27, 32, 33, 34

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	DUST CONTROL	Surface Disposal Site	3823	39.563589	-119.480524	GROUNDWATER

Permit History/Description of Proposed Action
The Permittee, EP Minerals, has applied for the renewal of groundwater discharge permit NS2018503 for their facility located east of Sparks, Nevada. They propose to utilize process water from the nearby James Hardie Building Products facility for dust control (permit NS2011501). The water will be transferred from James Hardie's storage impoundment to water trucks and transported to EP Minerals' Clark Mine, where it will be applied to designated haul roads and open dust sources.

This permit was initially issued in August 2018 and expired on August 1, 2023. It has since been administratively continued.

Facility Overview
The Permittee, EP Minerals, mines diatomaceous earth at its Clark Mine located east of Sparks, NV. The haul roads, safety berms, overburden stockpile pad, and waste fines deposits associated with the mining operation require dust control to comply with air quality regulations.

Outfall Summary
Outfall 001 – This outfall is designated for the discharge of process water onto dirt roads within the Permittee's facility (refer to the attached map).

Effluent Characterization
Process water is supplied by James Hardie Building Products, Inc. As part of the permit draft process, Nevada State Network Discharge Monitoring Report (NetDMR) data from 2018 to 2024 was reviewed. The long-term average flow rate was below the 0.15 million gallons per day (MGD) limit, with no exceedances during the reporting period. The pH levels ranged from 6.5 to 10.5 with an average of 8.0 standard units (S.U.), while total dissolved solids (TDS) ranged from 220 mg/L to 5,110 mg/L, with an average of 2,176

mg/L.

Pollutants of Concern
Pollutants of concern are any pollutants or parameters that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological condition of the receiving water. Pollutants of concern for the process water discharged at this facility are: Chromium hexavalent (as Cr), Chromium Total (as Cr), Aluminum total (as AL), Cadmium total (as Cd), Nitrogen Total (as N), Potassium total (as K), tetrachloroethylene (PCE), TDS, and pH.

Receiving Water
The receiving water is groundwater of the State. Discharges associated with this permit are not expected to reach or impact the receiving water. The depth to groundwater is 155 ft.

Compliance History
The Permittee was found to be in substantial compliance with their permit during the 2018 to 2024 reporting period. However, there were a few instances where water quality exceeded the permitted limits for pH, including:
pH 9.5 in July 2019
pH 9.25 in November 2021
pH 10 in July 2022
pH 10.5 in March 2023.

Other metals, as outlined in the Pollutants of Concern, were also monitored. However, none exceeded the permitted limits (if established).

Proposed Effluent Limitations
The discharge shall be limited and monitored by the Permittee as specified below:

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Daily When Discharging	CALCTD
Flow rate	Daily Maximum	<= 0.150 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Daily When Discharging	CALCTD
pH, minimum[1]	Daily Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
pH, maximum[1]	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
Solids, total dissolved[1]	Daily Maximum		<= 10000 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Chromium, Hexavalent [As CR] (Chromium (VI))[1]	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Chromium, total (as Cr)[1]	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Cadmium, total (as Cd)[1]	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Potassium, total (as K)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Aluminum, total (as Al)[1]	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Nitrogen, total[1]	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
			<= 5				

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Tetrachloroethylene	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT

Notes (NS OTHER - Discharge Limitations Table):

1. Results may be obtained from James Hardie Building Products Inc. (Permit NS2011501).

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Quarterly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Alkalinity, bicarbonate (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Aluminum, total (as Al)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Antimony, total (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Arsenic, total (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Barium, total (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Beryllium, total (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Cadmium, total (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Calcium, total (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Copper, total (as Cu)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
			M&R				

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Quarterly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Fluoride, total (as F)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Iron, total (as Fe)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Lead, total (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Magnesium, total (as Mg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Manganese, total (as Mn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Mercury, total (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Nickel, total (as Ni)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Phosphorus, total (as P)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Potassium, total (as K)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
			M&R				

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Quarterly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Selenium, total (as Se)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Silver, total (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Sodium, total (as Na)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Thallium, total (as Tl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Zinc, total (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT

Notes (NS OTHER - Discharge Limitations Table):

1. Results may be obtained from James Hardie Building Products Inc. (Permit NS2011501).

Summary of Changes From Previous Permit
The following pollutants will be monitored monthly, with limits set based on Profile 1 standards: Hexavalent Chromium (as Cr), Total Chromium (as Cr), Total Aluminum (as Al), Total Cadmium (as Cd), Total Nitrogen (as N), and Total Potassium (as K).

Technology Based Effluent Limitations
Technology based effluent limitations are not applicable to this permit.

Water Quality Based Effluent Limitations
Water quality based effluent limitations are not applicable to this permit.

Proposed Water Quality Based Effluent Limits (monthly/weekly/daily)
Water quality based effluent limitations are not applicable to this permit.

Basis for Effluent Limitations

There are currently no specific water quality standards that have been formally adopted by the State for groundwater. However, the Division has the discretion to implement effluent limitations outside water quality standards per Nevada Administrative Code (NAC) 445A.243, which states, “In establishing an effluent limitation to carry out the policy of this State set forth in NRS 445A.305, consideration must be given to, but is not limited by, the following: ... (2) the need for standards that specify by chemical, physical, biological, or other characteristics the extent to which pollution by various substances will not be tolerated.” The constituents listed in Profile I have been vetted by the Division and have been included in groundwater discharge permits for many years as a means of regulating groundwater quality.

Per Nevada Revised Statute (NRS) 445A.490, “No permit may be issued which authorizes any discharge or injection of fluids through a well into any waters of the State: ... (3) which would result in the degradation of existing or potential underground sources of drinking water.” Accordingly, a requirement has been established to conduct sampling for the constituents specified in Profile I on a monthly or quarterly basis, depending on the constituent, to obtain additional water quality data.

The previous permit included a TDS limit of 10,000 mg/L. The Profile I reference value for TDS is 1,000 mg/L. The total dissolved solids limit of 10,000 mg/L is consistent with other Division permits for the use of process water for dust control.

The permit requires monthly sampling for TDS, Hexavalent Chromium (as Cr), Total Chromium (as Cr), Total Aluminum (as Al), Total Cadmium (as Cd), Total Nitrogen (as N), Total Potassium (as K), and pH, as these constituents are considered pollutants of concern and have been detected at elevated concentrations during quarterly sampling. Therefore, they should be monitored more closely on a monthly basis. Additionally, limits were added to the monthly sampling to protect groundwater quality.

The quarterly sampling requirements remain the same as in the previous permit and include only monitoring and reporting. Pollutants that pose a potential risk to groundwater have been added as monthly samples with limits to protect the groundwater in the area.

The permit retains monthly sampling for PCE and Total Nitrogen (as N) as these constituents are considered pollutants of concern and have been detected at elevated concentrations in the public drinking water well near the site. Therefore, they should be monitored more closely on a monthly basis. The limits were added to the monthly sampling based on drinking water quality standards.

pH limits shall remain as authorized in the previous permit, ranging between 6.0 and 9.0 S.U., as the local ground conditions provide effective buffering to maintain pH balance. Additionally, no impact on groundwater quality has been observed in the on-site drinking water well.

Anti-backsliding

To prevent backsliding, effluent limitations in reissued permits must be at least as stringent as those in the previous permit. The permit requirements have not been revised to be less stringent; therefore, backsliding has not occurred. Consequently, more frequent monitoring on a monthly basis is warranted. Additionally, limits have been incorporated into the monthly sampling requirements based on groundwater quality considerations.

Antidegradation

The Division has developed an antidegradation regulation that is applied on a statewide basis and meets the statutory requirements of Nevada’s water pollution control law found at Nevada Revised Statute (NRS) 445A.520 and NRS 445A.565. It is also consistent with the federal antidegradation policy found in Title 40 of the Code of Federal Regulations (CFR) § 131.12. The objective of the Division’s antidegradation regulation is to prevent degradation of Nevada’s surface waters and maintain the unique attributes, special characteristics, and water quality associated with high-quality waters.

As this permit is for discharges to groundwater, and not surface water, the new antidegradation rule is not applicable. There are currently no specific water quality standards that have been formally adopted by the State for groundwater.

Special Conditions
See the Special Approvals / Conditions Table in the Fact Sheet.

SA – Special Approvals / Conditions Table

Item #	Description
1	The Permittee shall not allow process water used for dust control to run off of the dust control application areas.
2	The Permittee shall not use process water for dust control when the weather and ground conditions do not allow for the effective use of dust control water.
3	All discharges must stay within the project area. Reclaimed water and other water discharged with the project may not enter Waters of the United States.
4	No petroleum products, chemicals, or foreign debris of any kind shall be discharged to surface soils or groundwater.

Discharges From Future Outfalls/ Planned Facility Changes
The Permittee does not anticipate discharges from future outfalls or any changes to the facility.

Corrective Action Sites
There are four Bureau of Corrective Action (BCA) sites within a one-mile radius of the facility, all related to diesel spills in the area. Each of these sites was closed by the BCA in 2008, 2017, 2019, and 2022, respectively. There is no expected risk that water used for dust control will impact the potential risks to groundwater from the reported spills.

Wellhead Protection Program
The outfall is located next to a Public Water Supply (PWS) well placing the outfall in the Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well. The outfall is not located in a Wellhead Protection Area (WHPA), which represents an approximate 10-year capture zone of a well. The well is located in an unconfined aquifer at a depth of 155 feet. The recent chemical history of the well reports that the well has been having detections of tetrachloroethylene and nitrate. Based on the well structure and chemical history, the well is at risk of contamination.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two (2) copies (one electronic and one hard copy) of a Reclaimed Water Management Plan (RWMP) for review and approval by the Division. The plan shall be prepared by a Nevada registered Professional Engineer or Certified Environmental Manager.	10/28/2025

Deliverable Schedule:

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly Reports	Quarterly	10/28/2025
2	Annual Reports	Quarterly	1/28/2026

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at https://ndep.nv.gov/posts. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **5/7/2025,** a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination:

The Division has made the tentative determination to issue/re-issue the proposed 5-year permit.

Prepared by: **Lior Singer P.E. M.Sc.**
Date: **3/31/2025**
Title: **Environmental Engineer**