FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: OLAM SPICES AND VEGETABLES

EXIT 65 I-80 EAST CHUCHILL COUNTY
FERNLEY, NV 89406

Permit Number: NS0080024

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: OLAM SPICES AND VEGETABLES, INC., CHURCHILL
6548 OLD HIGHWAY 40, FERNLEY, NV 89408
LATITUDE: 39.791111, LONGITUDE: -119.020833
TOWNSHIP: 22 N, RANGE: 26 E, SECTION: 12

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	INFILTRATION BASINS	External Outfall		39.7905	-119.0178	GROUNDWATER
002	UNNAMED DITCH	External Outfall		39.7883	-119.0184	GROUNDWATER
003	EP MINERALS (PERMIT #NS2018504)	External Outfall		39.8284	-118.9697	GROUNDWATER
004	IMERYS MINERALS (PERMIT #NS2019511)	External Outfall		39.9395	-119.0914	GROUNDWATER
SUM	SUM OF OUTFALLS 001 + 002	Sum		39.7911	-119.0208	GROUNDWATER

Permit History/Description of Proposed Action
The Permittee, Olam Spices and Vegetables, Inc. (SVI), has applied for the renewal of groundwater discharge permit NS0080024 for the Olam SVI facility located at 6548 Old Highway 40 in Fernley, Nevada. The Permittee proposes to continue using geothermal water to clean and dehydrate onions, heat the facility, and wash down processing equipment.

This permit was first issued in December 1978. The permit was last issued on October 29, 2015, and expired on October 28, 2020; the permit has been administratively continued since.

Facility Overview
The facility receives geothermal water from the Brady Power Plant, located approximately 0.45 miles northeast of the Olam SVI facility. Upon delivery to the facility, the geothermal water is first used to operate two dehydration units. The water enters the units at a temperature near 300 ◦F and exits the units at a temperature around 160 ◦F. After the non-contact process water exits the dehydrators, the flow stream is split. A portion of the water (approximately 20%) is cooled to no more than 110 ◦F, and then stored for use as onion and equipment wash water. After use, the wash water is filtered through a 0.03-inch Hydro-sieve screen to remove vegetable matter, then collected in a detention sump. From the sump the water is intermittently discharged to any of the 18 onsite infiltration basins. The remaining non-contact process water (approximately 80%) is diverted into a fenced off pond to cool prior to release into an unnamed ditch that discharges to an alkali flat.

During this permit renewal, the Permittee is proposing to supply their non-contact process water to EP Minerals (permit #NS2018504) and Imerys Minerals (permit #NS2019511) located approximately 3.6 miles northeast and 11 miles north, respectively. The non-contact process water will be sourced from the facility's pond via a truck fill station. Water trucks will then transport the non-contact process water to EP Minerals and Imerys Minerals for dust control on dirt roads.

Outfall Summary

Outfall 001 – This outfall is for discharges of wash down water to the facility's onsite infiltration basins.

Outfall 002 – This outfall is for discharges of non-contact process water to the facility's onsite pond.

Outfall 003 – This outfall is for discharges of non-contact process water to the EP Minerals facility.

Outfall 004 – This outfall is for discharges of non-contact process water to the Imerys Minerals facility.

Outfall SUM – This outfall is for the sum of discharges from Outfalls 001 and 002.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from the year 2019 to 2023, was reviewed as part of this permit renewal process. The long-term average for the daily maximum discharge flow rate, which is the sum of Outfalls 001 and 002 was 1.29 million gallons per day (MGD). The daily maximum flow limit is 2.805 MGD; there were no exceedances of this limit.

The previous permit required monthly sampling of 5-day biochemical oxygen demand (BOD5), total suspended solids (TSS), and pH. Samples taken from Outfall 001 showed BOD5 concentrations as high as 1,400 mg/L, TSS concentrations as high as 3,500 mg/L, and pH readings as low as 3.95 standard units (S.U.). The elevated BOD5 and TSS concentrations are due to small amounts of vegetable particulates and other organic matter that remain in the wash water after screening. The low pH is likely due to prolonged comingling of the wash water with onion residues which contain sulfides.

Samples taken from Outfall 002 showed the maximum reported BOD5 level was 570 mg/L and pH readings as low as 4.25 S.U. and as high as 8.47 S.U. Outfall 002 discharges non-contact process water and reflects the unaltered characteristic of the geothermal source water.

Although the previous permit did not require the Permittee to sample for total dissolved solids (TDS), the facility did have the water tested for this constituent. During the 2019 to 2023 reporting period TDS averaged 3,483 mg/L for Outfall 001 and 2,892 mg/L for Outfall 002.

There were no exceedances of any of the permit limits from 2019 to 2023.

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. Data obtained through the NetDMR system indicates that pH and TDS are pollutants of concern for the non-contact process water and BOD5 and pH are pollutants of concern for the wash down water. Additionally, due to the high temperatures of the discharge water, temperature is deemed a pollutant of concern. Furthermore, TPH is considered to be a pollutant of concern as well.

Receiving Water

Receiving water is surface water (i.e., the unnamed ditch that discharges to an alkali flat and the 18 onsite infiltration basins) and groundwater (i.e., via percolation from the infiltration basins and the alkali flat) of the State. The infiltration basins and the alkali flat are isolated features and do not drain to a Waters of the U.S. The facility is located on a known geothermal resource area associated with Brady's Hot Springs. Groundwater quality is brackish and of non-potable quality. Depth to the unconfined groundwater aquifer varies from approximately 20 feet to 160 feet below ground surface. Regional groundwater flow is reported

to be to the southwest.

Compliance History
The facility was considered to be in substantial compliance during the 2019 to 2023 reporting period.

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

NS OTHER - Discharge Limitations Table for Sample Location 002 (Unnamed Ditch) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Continuous	METER
BOD, 5-day	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)[1]	Effluent Gross	002	Monthly	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)[1]	Effluent Gross	002	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Temperature, water deg. centigrade	Daily Maximum		M&R Degrees Centigrade (deg C)[1]	Effluent Gross	002	Monthly	DISCRT
Outfall observation,visual, y/n response[2]	Positive Results	M&R Yes=1; No=0 (Y=1;N=0)[3]		Effluent Gross	002	Biweekly	VISUAL

Notes (NS OTHER - Discharge Limitations Table):

1. Initial results of pH and temperature measurements should be recorded at the time of sampling.
2. The Permittee shall conduct a bi-weekly survey of the length of the discharge path for Outfall 002, from the cooling pond to the alkali flat, to ensure that discharge water is not negatively impacting wildlife (see Special Approvals / Condition Table Item #1).
3. A reported value of '1' indicates the presence of non-mortally and mortally injured wildlife within 25 feet of the discharge ditch. If a value of '1' is reported, the total number and species of wildlife observed to be impaired, or dead, shall be recorded and reported via a report attached in NetDMR. A reported value of '2' indicates no negative impact to wildlife from the discharged water from Outfall 002 (See Special Approvals / Condition Table Item #1).

NS OTHER - Discharge Limitations Table for Sample Location 002 (Unnamed Ditch) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Hydrocarbons, total petroleum[1]	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT

Notes (NS OTHER - Discharge Limitations Table):

1. Sample and report purgeable and extractible TPH quarterly. Report the full range of hydrocarbons, C6 – C40.

NS OTHER - Discharge Limitations Table for Sample Location 002 (Unnamed Ditch) To Be Reported Annually

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	002	Annual	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Aluminum, total (as Al)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Antimony, total (as Sb)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Arsenic, total (as As)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Barium, total (as Ba)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Cadmium, dissolved (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Calcium, total (as Ca)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Chromium, total (as Cr)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
			M&R				

NS OTHER - Discharge Limitations Table for Sample Location 002 (Unnamed Ditch) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Copper, dissolved (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Iron, total (as Fe)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Magnesium, total (as Mg)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Manganese, total (as Mn)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	002	Annual	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	002	Annual	DISCRT
Potassium, total (as K)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT

NS OTHER - Discharge Limitations Table for Sample Location 002 (Unnamed Ditch) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Selenium, dissolved [as Se]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Silver, total (as Ag) [1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Sodium, total (as Na)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Thallium, total (as Tl)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT

Notes (NS OTHER - Discharge Limitations Table):

1. Analysis shall be for the dissolved fraction.

NS OTHER - Discharge Limitations Table for Sample Location 003 (Ep Minerals) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	003	Daily When Discharging	CALCTD
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	003	Daily When Discharging	CALCTD

NS OTHER - Discharge Limitations Table for Sample Location 004 (Imerys Minerals) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	004	Daily When Discharging	CALCTD
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	004	Daily When Discharging	CALCTD

NS OTHER - Discharge Limitations Table for Sample Location Sum (Sum Of Outfalls 001 + 002) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	<= 2.805 Million Gallons per Day (Mgal/d)		Effluent Gross	SUM	Continuous	CALCTD[1]
Flow rate	30 Day Average	<= 2.75 Million Gallons per Day (Mgal/d)		Effluent Gross	SUM	Continuous	CALCTD[2]

Notes (NS OTHER - Discharge Limitations Table):

1. The daily maximum flow rate shall be calculated by adding the daily maximum flow rate for Outfalls 001 + 002.
2. The 30-day average flow rate shall be calculated by adding the 30-day average flow rate for Outfalls 001 + 002.

Ponds / Rapid Infiltration Basins for Sample Location 001 (Infiltration Basins) To Be Reported Monthly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
BOD, 5-day	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 001 (Infiltration Basins) To Be Reported Quarterly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Hydrocarbons, total petroleum[1]	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

1. Sample and report purgeable and extractible TPH quarterly. Report the full range of hydrocarbons, C6 – C40.

Ponds / Rapid Infiltration Basins for Sample Location 001 (Infiltration Basins) To Be Reported Annually

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	Annual	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Aluminum, total (as Al)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Antimony, total (as Sb)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Arsenic, total (as As)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Barium, total (as Ba)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Cadmium, dissolved (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Calcium, total (as Ca)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Chromium, total (as Cr)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
			M&R				

Ponds / Rapid Infiltration Basins for Sample Location 001 (Infiltration Basins) To Be Reported Annually

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Copper, dissolved (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Iron, total (as Fe)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Magnesium, total (as Mg)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Manganese, total (as Mn)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	001	Annual	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	001	Annual	DISCRT
Potassium, total (as K)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 001 (Infiltration Basins) To Be Reported Annually

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Selenium, dissolved [as Se]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Silver, total (as Ag) [1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Sodium, total (as Na)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Thallium, total (as Tl)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

1. Analysis shall be for the dissolved fraction.

Summary of Changes From Previous Permit

Outfall 003 has been renamed to Outfall SUM.

Outfall 004 has been renamed to Outfall 003.

Outfall 005 has been renamed to Outfall 004.

The total flow for Outfalls 003 (formerly Outfall 004) and 004 (formerly Outfall 005) has been changed to a daily maximum flow rate.

The requirement to report the 30-day average flow rate for Outfalls 003 (formerly Outfall 004) and 004 (formerly Outfall 005) has been established.

The requirement to sample TDS from Outfalls 001 and 002 has been established.

The requirement to sample Profile I constituents, each year, has been established for Outfalls 001 and 002.

The proposed permit establishes the requirement to sample TPH from Outfall 001.

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

Water Quality Based Effluent Limitations
Although there are no water quality based effluent limitations applicable to this permit, water quality narrative standards found at Nevada Administrative Code (NAC) 445A.120 applies.

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 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.” Therefore, the requirement to sample for the constituents listed in Profile I, each year to obtain additional water quality data, has been established. No limits have been established for Profile I constituents as the water is geothermal water which typically contains elevated levels of TDS, metals, and minerals and varying pH levels.

The permit retains monthly sampling of BOD5, pH, and TSS for Outfall 001, and establishes monthly sampling of TDS as these constituents are present in the discharge.

The permit retains monthly sampling of BOD5, temperature, pH, and TSS for Outfall 002, and establishes monthly sampling for TDS as these constituents are present in the discharge.

The permit establishes quarterly sampling of TPH for Outfall 001 and retains quarterly sampling of TPH for Outfall 002. This constituent has the potential to be present in the water supplied by the power plant as it may contain traces of lubricants used for their well pumping equipment. Furthermore, the water used to wash down process equipment could become contaminated with TPH. A limit of 1.0 mg/L, which has been determined by the Division to be reasonably obtainable using best management practices, is retained.

The permit retains the requirement for the Permittee to conduct a bi-weekly survey of the length of the discharge path for Outfall 002, from the cooling pond to the alkali flat, to ensure that discharged water is not negatively impacting wildlife.

Anti-backsliding
To prevent backsliding, effluent limitations in reissued permits are required to be as stringent as those in the previous permit. None of the proposed permit limitations were changed to a less restrictive limit compared to those in the pervious permit.

Antidegradation
The Division has developed an antidegradation regulation that is applied on a statewide basis, and which meets the statutory requirements of Nevada's water pollution control law found at NRS 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the CFR section 131.12. The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface waters and maintain the unique attributes and special characteristics and water quality associated with high-quality waters. This objective is achieved through the implementation of procedures to ensure that waters are protected from regulated activities that have the potential to degrade the water quality. The regulation uses four (4) tiers of antidegradation protection. Tier 1 protects water quality for beneficial uses of the water on a parameter-by-parameter basis. Tier 2 protects high-quality waters where data show the water quality is better than levels needed to protect beneficial uses (on a parameter-by-parameter basis). Tier 2.5 and Tier 3 protect water quality and the special characteristics of waterbodies designated with the beneficial use of "extraordinary, ecological, aesthetic or recreational value" (NAC 445A.122). The Division will conduct an antidegradation review only when a permit application is submitted for a new or expanding point source discharge to a surface water or for a new or altered zone of mixing.

As this is a renewal, and no changes to the flow or to the waste stream has been requested, a formal antidegradation review is not required. However, data reviewed during the renewal process does not indicate the potential for degradation of the receiving water body from the effluent discharged within the compliance limits of the proposed permit.

Special Conditions
See the Special Approvals / Conditions Table below.

The facility's Operation and Maintenance (O&M) Manual was last reviewed and approved in 2022. The Technical, Compliance, and Enforcement Branch of the Bureau of Water Pollution Control requires O&M Manuals be updated every two (2) permit cycles which equates to every ten (10) years. Therefore, the Permittee does not need to submit an O&M Manual to the Division at this time.

SA – Special Approvals / Conditions Table

Item #	Description
1	Mortality/Morbidity Surveys: The length of the discharge path, from the collection pond to the alkali flat, shall be surveyed bi-weekly for the presence of non-mortally and mortally injured wildlife within 25 feet of the discharge ditch. The total number and species of wildlife observed to be impaired, or dead, shall be recorded and reported on the quarterly DMR submittals (see Footnote #2 and 3 in the monthly table for Outfall 002).
2	The Permittee shall not provide non-contact process water for dust control or other reuse purposes to sites that do not have coverage under a separate Division-issued discharge permit.
3	The Permittee may request to add additional reclaimed water use sites to this permit.

Discharges From Future Outfalls/ Planned Facility Changes
The Permittee may request to add additional reclaimed water use sites to this permit.

At this time however, the Permittee does not anticipate discharges from future outfalls or any changes to the facility.

Corrective Action Sites
There are two (2) active Bureau of Corrective Action (BCA) sites located within a one-mile radius of the facility. The first site (E-000197) is for the release of diesel from a mobile source to soil. The second site (E-000200) is for the release of diesel from an above ground storage tank to soil. It is not anticipated that discharges from the facility will negatively affect the active BCA sites.

Wellhead Protection Program

The closest Public Water System (PWS) wells is located approximately 0.21 miles to the east of the facility. There is another PWS well located approximately 3.5 miles to the northeast. The facility is located within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well. The facility is not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

There are no Schedule of Compliance items

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	4/28/2025
2	Annual Reports	Annually	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. **12/16/2024,** 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: **Bonnie Hartley**
Date: **11/12/2024**
Title: **Staff II, Associate Engineer**