



**FACTSHEET**  
**(pursuant to NAC 445A.236)**

**Permittee Name:** TITANIUM METALS CORPORATION  
P.O. BOX 2128  
HENDERSON, NV - 89009

**Permit Number:** NS2000510

**Location:** TITANIUM METALS CORPORATION, CLARK  
181 N. WATER STREET, HENDERSON, NV - 89015  
LATITUDE: 36.04061360, LONGITUDE: -114.98862920  
TOWNSHIP: T22S, RANGE: R63E, SECTION: S18

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	POND HP-1	External Outfall		HENDERSON	NV	89015	CLARK	36.045556	-114.993556	DOUBLE-LINED POND
002	POND HP-6	External Outfall		HENDERSON	NV	89015	CLARK	36.045556	-114.993556	DOUBLE-LINED POND
003	POND GW-1	External Outfall		HENDERSON	NV	89015	CLARK	36.045556	-114.993556	DOUBLE-LINED POND
004	POND SW-1	External Outfall		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	DOUBLE-LINED POND
005	TOTAL FLOW TO PONDS HP-1, HP-6, GW-1, AND SW-1	External Outfall		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	DOUBLE-LINED POND
006	WCF-1	Internal Outfall		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	DOUBLE-LINED POND
007	WCF-2	Internal Outfall		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	DOUBLE-LINED POND
008	WCF-3	Internal Outfall		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	DOUBLE-LINED POND
009	SENTRY-1	Monitoring Well		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	GROUNDWATER
010	CMT-101	Monitoring Well		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	GROUNDWATER
011	CLD4-R	Monitoring Well		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	GROUNDWATER
012	J2U2	Monitoring Well		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	GROUNDWATER
013	SWMW-2	Monitoring Well		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	GROUNDWATER
014	MW-6R	Monitoring Well		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	GROUNDWATER
015	OVERFLOW CONDITION	Internal Outfall		HENDERSON	NV	89015	CLARK	36.0455	-114.9935	GROUNDWATER

**General:**

Titanium Metals Corporation (TIMET) manufactures titanium metal ingots from titanium dioxide (rutile ore) by a series of chemical processes that include chlorination, purification, magnesium recovery, vacuum distillation, and final melting. In 2005, TIMET incorporated a treatment system for process effluent streams, known as the Water Conservation Facility (WCF). The WCF treats the process waste streams from the production of titanium metal and titanium tetrachloride (TiCl<sub>4</sub>) by neutralization, precipitation, clarification, and filtration. The process waste streams treated in the WCF are the Spent Caustic stream, the Continuous Sludge Dryer (CSD) stream, and the Other Process Water (OPW) stream. The clarified and filtered liquid is

then treated by reverse osmosis (R/O) to achieve a high-quality effluent that is discharged to the Las Vegas Wash, and is managed and limited under the National Pollutant Discharge Elimination System (NPDES) permit NV0000060. The R/O concentrate stream produced in the WCF is managed on-site through evaporation ponds under this permit, NS2000510. The R/O concentrate stream produced in the R/O treatment step is contained in HDPE-lined, leak-detected ponds, and is evaporated under ambient conditions. The filtered solids produced (approximately 25 tons/day) are transported in a leak-proof container, held within double containment, and shipped to an approved disposal or treatment site. TIMET also uses various double-lined holding ponds for temporary storage of fluids before they are sent to the WCF for treatment. A full list of the ponds in operation is included in the permit and fact sheet.

Under the direction of the NDEP Bureau of Corrective Actions (BCA), TIMET has installed a groundwater extraction system to remediate a historical perchlorate plume that was migrating off their property. Current remediation activities are covered by Underground Injection Control permit GU07RL-51041. Under the remediation plan, the impacted groundwater is treated with an air stripper and is then injected into a trench at the north end of the property. By the end of 2015, TIMET is anticipating to add additional total dissolved solids (TDS) treatment to the WCF, which would allow treatment of the extracted groundwater to be carried out through the WCF.

The existing evaporation ponds, HP-1, HP-6, and GW-1, have capacities of 18 million gallons, 10 million gallons, and 11 million gallons, respectively. It is anticipated that the ponds will have an operational life of approximately 10 years, based on average annual evaporation rates, before removal of evaporated salts is required. Additionally, the NDEP has reviewed the construction and use of ponds WCF-1 and WCF-3. WCF-1 and WCF-3 are used as holding ponds for process fluids prior to being treated in the WCF. The ponds have been constructed with two layers of 60-mil HDPE geomembrane and a leak detection sump. Depending on capacity needs, TIMET has indicated they may need to construct additional ponds, including ponds WCF-2 and SW-1.

The permit includes several possible scenarios in which the overflow ponds will be used, described as "overflow" conditions in the permit. In the first scenario, the OPW stream would be routed to the overflow ponds prior to be sent to the WCF. In the second scenario, any or all of the process streams would be diverted to the ponds after neutralization within the plant. This would result in both liquids and precipitated solids being discharged to the ponds at a maximum rate of up to 0.25 MGD. In addition to the overflow conditions listed, an overflow scenario can occur in the event of catastrophic failure or insufficient processing capacity of the R/O treatment system. In this scenario, water that has been treated through neutralization and clarification and is termed, "High TDS" water can be discharged directly to the evaporation ponds prior to R/O treatment. With the planned addition of the crystallizer plant, this water will be treated with existing R/O concentrate when the system is online. This scenario will not be considered standard practice and reporting of any event of this overflow condition will be included in Outfall 015 of the permit.

### **Discharge Characteristics:**

Waste streams discharged to the evaporation ponds include spent caustic, OPW, and CSD flows. Future plans include the addition of treated groundwater from the remediation system. To characterize the water in the lined ponds, in case the ponds leak into the groundwater, the quarterly sampling for pH, sulfate, chloride, total dissolved solids (TDS) and total nitrogen is required. TIMET also provides annual water quality data for several constituents including metals, volatile organic compounds (VOCs) and radionuclides.

### **Receiving Water:**

Activities covered under this permit are designed to prevent any discharge from entering a Water of the State. However, should a discharge occur, the potential receiving water is groundwater. The depth to groundwater is approximately 33 to 43 feet below ground surface and flows north-northeast toward the Las Vegas Wash. To further ensure groundwater protection, the NDEP requires groundwater monitoring of six monitoring wells: Sentry-1; CMT-101; CLD4-R; J2U2; SWMW-2; and MW-6R. These existing wells are

utilized to monitor relative groundwater quality conditions up-gradient and down-gradient of the ponds. Should the need to change the location of the existing groundwater monitoring wells arise, the NDEP may approve the inclusion of new wells for monitoring purposes as a minor modification to the permit.

**Summary of Changes From Previous Permit:**

Due to a new permit naming convention at NDEP-Bureau of Water Pollution Control, the permit identification has been changed from NEV2000510 to NS2000510. This change does not reflect a change in the type of permit being issued. NEV and NS permits are for groundwater discharges to the State of Nevada. These are not to be confused with NV permits which are reserved for NPDES permitting.

Monitoring and reporting of nitrate as nitrogen in both the ponds and monitoring wells has been removed from the permit because it is included in the total nitrogen value.

The Permittee has requested the addition of Pond GW-1 (003) and Pond SW-1 (004) to this permit. Pond GW-1 was completed in July 2014, and Pond SW-1 is yet to be reviewed by the Division. This permit lists all ponds on the TIMET facility that are used for holding before treatment (WCF-1, WCF-2, and WCF-3), and all evaporation ponds used for disposal of the R/O concentrate and treated groundwater (HP-1, HP-6, GW-1, and SW-1). Any construction of additional ponds not listed in this permit may be reviewed by the Division through a minor modification to the permit.

The Permittee has requested to increase the permitted flow from 0.46 MGD to 0.563 MGD.

**Proposed Effluent Limitations:**

The Permittee is authorized to manage process waste fluids and products associated with the titanium production process, and discharge treated groundwater to the evaporation ponds in accordance with the limitations, requirements, and conditions of this permit. The discharge shall be limited, sampled, and monitored by the Permittee as specified below.

**Groundwater Monitoring Wells Table for Sample Location 009 (Monitoring Well - Sentry-1) To Be Reported Semi Annually**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	009	Semiannual	STATIC
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Groundwater	009	Semiannual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	009	Semiannual	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	009	Semiannual	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	009	Semiannual	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	009	Semiannual	DISCRT
Nitrogen, nitrate total (as N)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	009	Semiannual	DISCRT

**Groundwater Monitoring Wells Table for Sample Location 010 (Monitoring Well - Cmt-101) To Be Reported Semi Annually**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH	Value		M&R Standard Units (SU)	Groundwater	010	Semiannual	DISCRT
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	010	Semiannual	STATIC
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Groundwater	010	Semiannual	DISCRT
Nitrogen, nitrate total (as N)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	010	Semiannual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	010	Semiannual	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	010	Semiannual	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	010	Semiannual	DISCRT

**Groundwater Monitoring Wells Table for Sample Location 011 (Monitoring Well - Cld4-R) To Be Reported Semi Annually**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	011	Semiannual	STATIC
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Groundwater	011	Semiannual	DISCRT
Nitrogen, nitrate total (as N)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	011	Semiannual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	011	Semiannual	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	011	Semiannual	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	011	Semiannual	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	011	Semiannual	DISCRT

**Groundwater Monitoring Wells Table for Sample Location 012 (Monitoring Well - J2u2) To Be Reported Semi Annually**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, nitrate total (as N)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	012	Semiannual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	012	Semiannual	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	012	Semiannual	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	012	Semiannual	DISCRT
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	012	Semiannual	STATIC
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Groundwater	012	Semiannual	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	012	Semiannual	DISCRT

**Groundwater Monitoring Wells Table for Sample Location 013 (Monitoring Well - Swmw-2) To Be Reported Semi Annually**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Groundwater	013	Semiannual	DISCRT
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	013	Semiannual	STATIC
pH	Value		M&R Standard Units (SU)	Groundwater	013	Semiannual	DISCRT
Nitrogen, nitrate total (as N)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	013	Semiannual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	013	Semiannual	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	013	Semiannual	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	013	Semiannual	DISCRT

**Groundwater Monitoring Wells Table for Sample Location 014 (Monitoring Well - Mw-6R) To Be Reported Semi Annually**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH	Value		M&R Standard Units (SU)	Groundwater	014	Semiannual	DISCRT
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	014	Semiannual	STATIC
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Groundwater	014	Semiannual	DISCRT
Nitrogen, nitrate total (as N)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	014	Semiannual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	014	Semiannual	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	014	Semiannual	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Groundwater	014	Semiannual	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall - Pond Hp-1) To Be Reported Monthly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	Monthly Maximum <sup>[1]</sup>	<= 500 Gallons per Acre per Day (gal/acre/d)		See Footnote <sup>[2]</sup>	001	Monthly <sup>[3]</sup>	METER

Notes (Ponds / Rapid Infiltration Basins):

1. The action leakage rates in part B.PB.13.4. of the permit shall be applied to all double-lined ponds at the facility.
2. Leak-detection sump.
3. Monthly sump inspection logs shall be submitted with each quarterly monitoring report.

**Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall - Pond Hp-1) To Be Reported Quarterly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH	Value		M&R Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Sulfate, total (as SO4)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall - Pond Hp-1) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Strontium, total (as Sr)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Titanium, total (as Ti)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Uranium, natural, total	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Vanadium, total (as V)	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Alpha gross radioactivity	Value		M&R Picocuries per Liter (pCi/L)	Effluent Gross	001	Annual	DISCRT
Radiation, Gross Beta Particle Activity	Value		M&R Millirems per Year (mrems/yr)	Effluent Gross	001	Annual	DISCRT
Perchlorate (ClO <sub>4</sub> )	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Carbon tetrachloride	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chloroform	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Tetrachloroethylene	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Trichloroethylene	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
			M&R				

**Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall - Pond Hp-1) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Molybdenum, total (as Mo)	Value		Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Aluminum, total (as Al)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Arsenic, total (as As)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Barium, total (as Ba)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Cadmium, total (as Cd)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Copper, total (as Cu)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Iron, total (as Fe)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Lead, total (as Pb)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Manganese, total (as Mn)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Nickel, total (as Ni)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Selenium, total (as Se)	Value		M&R Milligrams per Liter	Effluent Gross	001	Annual	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall - Pond Hp-1) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
			(mg/L)				
Silver, total (as Ag)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Sulfate, total (as SO <sub>4</sub> )	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Zinc, total (as Zn)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 002 (External Outfall - Pond Hp-6) To Be Reported Monthly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	Monthly Maximum <sup>[1]</sup>	<= 500 Gallons per Acre per Day (gal/acre/d)		See Footnote <sup>[2]</sup>	002	Monthly <sup>[3]</sup>	METER

Notes (Ponds / Rapid Infiltration Basins):

1. The action leakage rates in part B.PB.13.4. of the permit shall be applied to all double-lined ponds at the facility.
2. Leak-detection sump.
3. Monthly sump inspection logs shall be submitted with each quarterly monitoring report.

**Ponds / Rapid Infiltration Basins for Sample Location 002 (External Outfall - Pond Hp-6) To Be Reported Quarterly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
Sulfate, total (as SO4)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
pH	Value		M&R Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 002 (External Outfall - Pond Hp-6) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Aluminum, total (as Al)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Arsenic, total (as As)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Barium, total (as Ba)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Cadmium, total (as Cd)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Copper, total (as Cu)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Iron, total (as Fe)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Lead, total (as Pb)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Manganese, total (as Mn)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Nickel, total (as Ni)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Selenium, total (as Se)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
			M&R				

**Ponds / Rapid Infiltration Basins for Sample Location 002 (External Outfall - Pond Hp-6) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Silver, total (as Ag)	Value		Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Sulfate, total (as SO <sub>4</sub> )	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Zinc, total (as Zn)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Strontium, total (as Sr)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Titanium, total (as Ti)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Uranium, natural, total	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Vanadium, total (as V)	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Alpha gross radioactivity	Value		M&R Picocuries per Liter (pCi/L)	Effluent Gross	002	Annual	DISCRT
Radiation, Gross Beta Particle Activity	Value		M&R Millirems per Year (mrems/yr)	Effluent Gross	002	Annual	DISCRT
Perchlorate (ClO <sub>4</sub> )	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Carbon tetrachloride	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Chloroform	Value		M&R Micrograms per Liter	Effluent Gross	002	Annual	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 002 (External Outfall - Pond Hp-6) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
			(ug/L)				
Tetrachloroethylene	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Trichloroethylene	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Molybdenum, total (as Mo)	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 003 (External Outfall - Gw-1) To Be Reported Monthly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate <sup>[1]</sup>	Monthly Maximum	<= 500 Gallons per Acre per Day (gal/acre/d)		See Footnote <sup>[2]</sup>	003	Monthly <sup>[3]</sup>	METER

Notes (Ponds / Rapid Infiltration Basins):

1. The action leakage rates in part B.PB.13.4. of the permit shall be applied to all double-lined ponds at the facility.
2. Leak-detection sump.
3. Monthly sump inspection logs shall be submitted with each quarterly monitoring report.

**Ponds / Rapid Infiltration Basins for Sample Location 003 (External Outfall - Gw-1) To Be Reported Quarterly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
pH	Value		M&R Standard Units (SU)	Effluent Gross	003	Quarterly	DISCRT
Sulfate, total (as SO4)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 003 (External Outfall - Gw-1) To Be Reported Annually**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Strontium, total (as Sr)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Titanium, total (as Ti)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Uranium, natural, total	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Vanadium, total (as V)	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Alpha gross radioactivity	Value		M&R Picocuries per Liter (pCi/L)	Effluent Gross	003	Annual	DISCRT
Radiation, Gross Beta Particle Activity	Value		M&R Millirems per Year (mrems/yr)	Effluent Gross	003	Annual	DISCRT
Perchlorate (ClO <sub>4</sub> )	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Carbon tetrachloride	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Chloroform	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Tetrachloroethylene	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Trichloroethylene	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
			M&R				

**Ponds / Rapid Infiltration Basins for Sample Location 003 (External Outfall - Gw-1) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Molybdenum, total (as Mo)	Value		Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Aluminum, total (as Al)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Arsenic, total (as As)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Barium, total (as Ba)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Cadmium, total (as Cd)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Copper, total (as Cu)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Iron, total (as Fe)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Lead, total (as Pb)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Manganese, total (as Mn)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Nickel, total (as Ni)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Selenium, total (as Se)	Value		M&R Milligrams per Liter	Effluent Gross	003	Annual	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 003 (External Outfall - Gw-1) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
			(mg/L)				
Silver, total (as Ag)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Sulfate, total (as SO <sub>4</sub> )	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Zinc, total (as Zn)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT

**Ponds / Rapid Infiltration Basins for Sample Location 004 (External Outfall - Sw-1) To Be Reported Monthly<sup>[4]</sup>**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	Monthly Maximum <sup>[1]</sup>	<= 500 Gallons per Acre per Day (gal/acre/d)		See Footnote <sup>[2]</sup>	004	Monthly <sup>[3]</sup>	METER

Notes (Ponds / Rapid Infiltration Basins):

1. The action leakage rates in part B.PB.13.4. of the permit shall be applied to all double-lined ponds at the facility.
2. Leak-detection sump.
3. Monthly sump inspection logs shall be submitted with each quarterly monitoring report.
4. Up until Pond SW-1 is constructed and brought online, report "no discharge" on all DMRs for this outfall.

**Ponds / Rapid Infiltration Basins for Sample Location 004 (External Outfall - Sw-1) To Be Reported Quarterly<sup>[1]</sup>**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Quarterly	DISCRT
Solids, total dissolved	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Quarterly	DISCRT
pH	Value		M&R Standard Units (SU)	Effluent Gross	004	Quarterly	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Quarterly	DISCRT
Sulfate, total (as SO <sub>4</sub> )	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Quarterly	DISCRT

**Notes (Ponds / Rapid Infiltration Basins):**

- Up until Pond SW-1 is constructed and brought online, report "no discharge" on all DMRs for this outfall.

**Ponds / Rapid Infiltration Basins for Sample Location 004 (External Outfall - Sw-1) To Be Reported Annually<sup>[1]</sup>**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Aluminum, total (as Al)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Arsenic, total (as As)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Barium, total (as Ba)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Cadmium, total (as Cd)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Chromium, total (as Cr)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Copper, total (as Cu)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Iron, total (as Fe)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Lead, total (as Pb)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Manganese, total (as Mn)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Nickel, total (as Ni)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Selenium, total (as Se)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
			M&R				

**Ponds / Rapid Infiltration Basins for Sample Location 004 (External Outfall - Sw-1) To Be Reported Annually<sup>[1]</sup>**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Silver, total (as Ag)	Value		Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Sulfate, total (as SO <sub>4</sub> )	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Zinc, total (as Zn)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Strontium, total (as Sr)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Vanadium, total (as V)	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	004	Annual	DISCRT
Alpha gross radioactivity	Value		M&R Picocuries per Liter (pCi/L)	Effluent Gross	004	Annual	DISCRT
Radiation, Gross Beta Particle Activity	Value		M&R Millirems per Year (mrems/yr)	Effluent Gross	004	Annual	DISCRT
Perchlorate (ClO <sub>4</sub> )	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	004	Annual	DISCRT
Carbon tetrachloride	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	004	Annual	DISCRT
Chloroform	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	004	Annual	DISCRT
Tetrachloroethylene	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	004	Annual	DISCRT
			M&R				

**Ponds / Rapid Infiltration Basins for Sample Location 004 (External Outfall - Sw-1) To Be Reported Annually<sup>[1]</sup>**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Trichloroethylene	Value		Micrograms per Liter (ug/L)	Effluent Gross	004	Annual	DISCRT
Molybdenum, total (as Mo)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Titanium, total (as Ti)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Uranium, natural, total	Value		M&R Micrograms per Liter (ug/L)	Effluent Gross	004	Annual	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

- Up until Pond SW-1 is constructed and brought online, report "no discharge" on all DMRs for this outfall.

**Ponds / Rapid Infiltration Basins for Sample Location 005 (External Outfall - Combined Flow) To Be Reported Monthly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate <sup>[1]</sup>	Daily Maximum	<= 0.563 Million Gallons per Day (Mgal/d)		Effluent Gross	005	Continuous	METER

Notes (Ponds / Rapid Infiltration Basins):

1. Monitor and report the combined flow for all fluids entering ponds HP-1, HP-6, GW-1, and SW-1.

**Ponds / Rapid Infiltration Basins for Sample Location 006 (Internal Outfall - Wcf-1) To Be Reported Monthly<sup>[4]</sup>**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	Monthly Maximum <sup>[1]</sup>	<= 500 Gallons per Acre per Day (gal/acre/d)		See Footnote <sup>[2]</sup>	006	Monthly <sup>[3]</sup>	METER

Notes (Ponds / Rapid Infiltration Basins):

1. The action leakage rates in Part B.PB.13.4. of the permit shall be applied to all double-lined ponds at the facility.
2. Leak-detection sump.
3. Monthly sump inspection logs shall be submitted with each quarterly monitoring report.
4. Up until Pond WCF-1 is constructed and brought online, report "no discharge" on all DMRs for this outfall.

**Ponds / Rapid Infiltration Basins for Sample Location 007 (Internal Outfall - Wcf-2) To Be Reported Monthly<sup>[4]</sup>**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	Monthly Maximum <sup>[1]</sup>	<= 500 Gallons per Acre per Day (gal/acre/d)		See Footnote <sup>[2]</sup>	007	Monthly <sup>[3]</sup>	METER

Notes (Ponds / Rapid Infiltration Basins):

1. The action leakage rates in Part B.PB.13.4. of the permit shall be applied to all double-lined ponds at the facility.
2. Leak-detection sump.
3. Monthly sump inspection logs shall be submitted with each quarterly monitoring report.
4. Up until Pond WCF-2 is constructed and brought online, report "no discharge" on all DMRs for this outfall.

**Ponds / Rapid Infiltration Basins for Sample Location 008 (Internal Outfall - Wcf-3) To Be Reported Monthly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	Monthly Maximum <sup>[1]</sup>	<= 500 Gallons per Acre per Day (gal/acre/d)		See Footnote <sup>[2]</sup>	008	Monthly <sup>[3]</sup>	METER

Notes (Ponds / Rapid Infiltration Basins):

1. The action leakage rates in Part B.PB.13.4. of the permit shall be applied to all double-lined ponds at the facility.
2. Leak-detection sump
3. Monthly sump inspection logs shall be submitted with each quarterly monitoring report.

**Ponds / Rapid Infiltration Basins for Sample Location 015 (Internal Outfall - Overflow Conditions)  
To Be Reported Quarterly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH	Quarterly Average		M&R Standard Units (SU)	Effluent Gross	015	See Permit <sup>[1]</sup>	DISCRT
Flow rate	Quarterly Total	M&R Million Gallons per Quarter (Mgal/qtr)		Effluent Gross	015	See Permit <sup>[1]</sup>	METER

Notes (Ponds / Rapid Infiltration Basins):

1. For each overflow occurrence, monitoring results shall be submitted with the quarterly monitoring report. If no overflow occurs during the quarter, report "no discharge" on the applicable quarterly monitoring report.

**Rationale for Permit Requirements:**

Monitoring is required to verify that degradation of the groundwater is not occurring as a result of the permitted discharge activities.

1. Flow: Flow of clarified process fluid shall be monitored on a continuous basis at the head of the R/O treatment systems. Flow of the treated groundwater shall be sampled prior to discharge to the lined ponds. In the event of overflow conditions, the flow of process wastes to the ponds will be monitored according to Item 4 below.
2. Pond Fluid: Ponds HP-1 (001), HP-6 (002), GW-1 (003) and SW-1 (004) shall be sampled in accordance with the discharge limitation tables.
3. Leak Detection Sumps: Leak detection sumps for all TIMET lined ponds, including HP-1 (001), HP-6 (002), GW-1 (003), SW-1 (004), WCF-1 (006), WCF-2 (007) and WCF-3 (008) shall be inspected for accumulation of fluid.
4. Overflow Conditions: Samples of the overflow flow discharge to the ponds shall be taken for flow and pH. For each overflow occurrence, a report detailing the reasons for, volume and duration of the overflow, the corrective actions taken to avoid future overflows, and the monitoring results shall be submitted with the upcoming quarterly monitoring report. Flow from overflow conditions shall be included in the reporting of Outfall 015.

**Special Conditions:**

See Special Approvals/Conditions Table.

SA – Special Approvals / Conditions Table

Item #	Description
1	<p><b>Groundwater Monitoring:</b> Should any new groundwater monitoring wells be installed, and the request made to utilize these wells for monitoring purposes, NDEP may review the request for the inclusion of new wells as a minor modification to the permit. Any new monitoring wells used for the purposes of this permit shall be constructed in accordance with WTS-4, "Monitoring Well Design Requirements."</p> <p>The fourth quarter report shall include a groundwater gradient map and graphical plots of each groundwater monitoring well with each detected constituent depicted.</p>
2	<p><b>Solids Storage Area Monitoring:</b> The area in which the filtered solids are contained shall be inspected monthly for integrity, and any signs of leakage shall immediately be repaired, and any adjacent impacted soil outside the containment area must be removed to the containment. Any accumulated storm water shall be evacuated and either discharged directly to the evaporation ponds or to the WCF for treatment. A bound log of monthly inspections shall be maintained on-site. Volume and/or weight of solids removed and ultimate disposal method/location shall be reported in each quarterly monitoring report.</p>
3	<p><b>Containment Inspections:</b> WCF containment structures shall contain any spills or losses of liquid from process or equipment located within the containment area. Any spilled material shall be collected and pumped to the appropriate location. Wash down waters shall be confined to containment area in accordance with procedures in the O&amp;M Manual. Unless otherwise stipulated in this permit, all devices, systems and facilities for fluid control, drainage and containment shall be inspected at regular intervals to ensure proper operational function, in accordance with the O&amp;M Manual. Drainage, containment and leak detection systems shall also be inspected during storms and after storms when possible. These inspections are to be performed to detect evidence of:</p> <ul style="list-style-type: none"> <li>a. deterioration, malfunction, or improper operation of control systems;</li> <li>b. the presence of liquids in leak detection systems; and</li> <li>c. severe erosion or other signs of deterioration in berms or other containment devices.</li> </ul>
4	<p><b>List of Ponds:</b> The following is a list of Division-reviewed ponds/holding tanks that are in use at the TIMET facility:</p> <ul style="list-style-type: none"> <li>Pond HP-1</li> <li>Pond HP-6</li> <li>Pond GW-1</li> <li>Pond WCF-1</li> <li>Pond WCF-3</li> </ul> <p>The following ponds are included in this permit; however, have not yet been reviewed by the Division:</p> <ul style="list-style-type: none"> <li>Pond SW-1</li> <li>Pond WCF-2</li> </ul> <p>The Division shall review the design of all ponds prior to construction. The review and inclusion of any new pond/holding tank is considered a minor modification to the permit.</p>
5	<p><b>Overflow Conditions:</b> In addition to the overflow conditions listed, an overflow scenario can occur in the event of catastrophic failure or insufficient processing capacity of the R/O treatment system. In this scenario, water that has been treated through neutralization and clarification and is termed, "High TDS" water can be discharged directly to the evaporation ponds prior to R/O treatment. With the planned addition of the crystallizer plant, this water will be treated with existing R/O concentrate when the system is online. This scenario will not be considered standard practice and reporting of any event of this overflow condition will be included in Outfall 015 of the permit.</p>

Item #	Description
6	In accordance with part B.PB.8 of the permit, the Permittee shall notify the Division when the capacity of the ponds have reached 85% instead of the design treatment capacity stated in the permit.
7	The evaporation ponds listed in this permit have a minimum freeboard depth requirement of 2 feet.
8	The Permittee may disregard part C.15 of the permit. Due to the fact that the facility is not a municipal treatment plant, safeguards to electric power failure do not apply to this facility.
9	The Permittee may disregard part B.MW.3. of the permit. Up-gradient monitoring wells show that elevated nitrogen levels are the result of influences besides the TIMET facility.

**Flow:**

The permitted flow limit of 0.563 MGD to the evaporation ponds (HP-1, HP-6, GW-1 and SW-1) is based on the design capacity of each pond with a two-foot freeboard. The flow to the overflow ponds (WCF-1, WCF-2, and WCF-3) is limited to the design capacity of each pond with a two-foot freeboard.

**Discharges From Future Outfalls:**

The Permittee plans to construct two additional ponds within the five-year permit cycle; pond SW-1 will be the fourth double-lined evaporation pond constructed, and WCF-2 will be the third holding pond constructed.

**Corrective Action Sites:**

There are three NDEP-Bureau of Corrective Actions (BCA) remediation sites located within a one-mile radius of the permitted facility: H-000536, H-000855, H-000539. Due to preliminary data showing contamination at the SW-1 site, BCA has requested that prior to installation of SW-1, a thorough investigation and remedial action be performed at this location. The BCA does not expect the permitted discharge to have adverse effects on the remediation sites.

**Wellhead Protection Program:**

The facility is not located within a Drinking Water Protection Area, nor is it located within an established Wellhead Protection Area.

**Schedule of Compliance:**

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two (2) copies of an updated Operations and Maintenance (O&M) Manual, created in accordance with the appropriate sections of the Nevada Division of Environmental Protection (NDEP) guidance document WTS-2, "Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant." The O&M Manual shall be prepared by a qualified person familiar with system operations.	10/1/2015

**Deliverable Schedule:**

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs <sup>[1]</sup>	Quarterly	10/28/2015
2	Semi Annual DMRs	Semi Annually	1/28/2016
3	Annual DMRs	Annually	1/28/2016
4	Annual Report <sup>[2]</sup>	Annually	1/28/2016

## Notes (Deliverable Schedule for Reports, Plans, and Other Submittals):

1. In addition to the quarterly report requirements in part A.4. of the permit, the quarterly report shall include:
  - i. A summary narrative report of operations including, but not limited to: irregularities, accidents, shut-downs, overflows and incidents of non-compliance;
  - ii. A report of the results obtained from all pond leakage detection systems;
  - iii. The quantities, by type, of all waste material removed from any holding pond. The report shall include the name and location of the final disposal site;
  - iv. The quantities of all filtered solids from the wastewater neutralization facility. The report shall include the name and location of the final disposal site.
2. The annual report required in part A.4. of the permit shall include:
  - i. A groundwater gradient map and graphical plots of each groundwater monitoring well with each detected constituent depicted. Disregard the section in Part A.4.2. of the permit that requires graphs for each constituent identified in the Monitoring Table and only provide graphs for the six monitoring wells.
  - ii. A summary table listing all incidents of "overflow" operations, including date, duration, volume, and analyses for discharge to the evaporation ponds.

**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 sent to the **Las Vegas Review Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **8/2/2015**, 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 to 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: **Briana Johnson**

Date: **6/29/2015**

Title: **Environmental Scientist**