

**MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY**

AUTHORIZATION UNDER THE
MONTANA GROUND WATER POLLUTION CONTROL SYSTEM

In compliance with Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA) and the Administrative Rules of Montana (ARM) 17.30 Subchapter 5, Subchapter 7, and Subchapter 10 *et seq.*,

Paradine Mill, Inc.

must operate its facility, the **Paradine Mill**, in accordance with the limitations, monitoring requirements, and other provisions set forth herein.

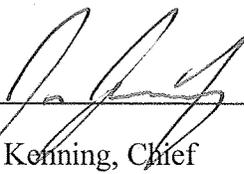
The facility is located at: Northwest ¼ of Section 21, Township 05 North, Range 01 East; Broadwater County.

Authorization is limited to the conditions specifically listed in the permit. The limitations, monitoring requirements, and other provisions specified herein support the protection of state waters.

This permit shall become effective: **July 01, 2015.**

This permit and the authorization shall expire at midnight, **June 30, 2020.**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY



Jon Kenning, Chief
Water Protection Bureau
Permitting and Compliance Division

Issue Date: April 27, 2015

TABLE OF CONTENTS

I.	EFFLUENT LIMITS, MONITORING REQUIREMENTS & OTHER CONDITIONS	3
A.	DISCHARGE LIMITATIONS	3
B.	SPECIAL CONDITIONS – IMPOUNDMENT CONTINGENCY MEASURES	3
C.	SPECIAL CONDITIONS – GROUND WATER CONTINGENCY MEASURES	4
D.	MONITORING AND REPORTING REQUIREMENTS – FACILITY	5
E.	MONITORING AND REPORTING REQUIREMENTS – IMPOUNDMENT AND LEAK DETECTION SYSTEM	6
F.	MONITORING AND REPORTING REQUIREMENTS – GROUND WATER	9
G.	SPECIAL CONDITIONS - STANDARD OPERATING PROCEDURES/SAMPLING AND ANALYSIS PLAN	9
H.	COMPLIANCE SCHEDULE.....	12
II.	MONITORING, RECORDING AND REPORTING REQUIREMENTS.....	13
A.	REPRESENTATIVE SAMPLING	13
B.	MONITORING PROCEDURES	13
C.	PENALTIES FOR TAMPERING	13
D.	REPORTING OF MONITORING RESULTS	13
E.	COMPLIANCE SCHEDULES.....	13
F.	ADDITIONAL MONITORING BY THE PERMITTEE	14
G.	RECORDS CONTENTS.....	14
H.	RETENTION OF RECORDS	14
I.	TWENTY-FOUR HOUR NOTICE OF NONCOMPLIANCE REPORTING.....	14
J.	OTHER NONCOMPLIANCE REPORTING	15
K.	INSPECTION AND ENTRY	15
III.	COMPLIANCE RESPONSIBILITIES.....	17
A.	DUTY TO COMPLY	17
B.	PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS.....	17
C.	NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE.....	17
D.	DUTY TO MITIGATE	17
E.	PROPER OPERATION AND MAINTENANCE	17
F.	REMOVED SUBSTANCES	18
G.	BYPASS OF TREATMENT FACILITIES	18
IV.	GENERAL REQUIREMENTS	19
A.	PLANNED CHANGES	19
B.	ANTICIPATED NONCOMPLIANCE	19
C.	PERMIT ACTIONS.....	19
D.	DUTY TO REAPPLY.....	19
E.	DUTY TO PROVIDE INFORMATION.....	19
F.	OTHER INFORMATION	19
G.	SIGNATORY REQUIREMENTS	20
H.	PENALTIES FOR FALSIFICATION OF REPORTS	21
I.	AVAILABILITY OF REPORTS	21
J.	OIL AND HAZARDOUS SUBSTANCE LIABILITY	21
K.	PROPERTY OR WATER RIGHTS	21
L.	SEVERABILITY.....	21
M.	TRANSFERS	21
N.	FEES	22
O.	REOPENER PROVISIONS.....	22
V.	DEFINITIONS	23

I. EFFLUENT LIMITS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Discharge Limitations

There shall be no discharge to state water from the facility. No outfalls have been established under this permit. No mixing zones have been authorized under this permit.

There shall be no use of cyanide, or process of cyanide treated material at the facility at all times.

All impoundments used for operational or impounding purposes shall be constructed and at all times be maintained in a leak free condition. All impoundments used for operational or impounding purposes shall at all times have an installed and operational water leak detection system.

Discharges at any location not authorized under a MGWPCS permit is a violation of the Montana Water Quality Act and may subject the person(s) responsible for such discharge to penalties under the Act. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from first learning of an unauthorized discharge could subject such person to criminal penalties as provided under Section 75-5-632 of the Montana Water Quality Act.

B. Special Conditions – Impoundment Contingency Measures

The permittee must perform contingency measures when:

- Water is present in the water leak detection system (Part I.E.); or,
- As invoked by DEQ (the Department) under the ground water contingency measures (Part I.C.).

1. The contingency measures performed must at minimum include the following:
 - a. Notify DEQ, Water Protection Bureau (WPB) of leak detection within 72 hours of discovering the presence of water in the leak detection system;
 - b. Sample the water in the leak detection system (Table 4) within 72 hours of discovering the presence of water in the leak detection system; and,
 - c. Submit all respective laboratory analytical reports to DEQ, WPB within 60 days from the date of original notification. Include a report summarizing the leak detection event(s), detection date(s), notification date(s), sampling procedures, and water quality.
2. Following the notification of the leak detection, DEQ may also require the permittee to perform the following measures:
 - a. Complete further investigative actions;
 - b. Continue sampling the water in the leak detection system, including (but not limited to) more frequent and/or inclusion of other parameters in the analysis;
 - c. Completion or update of a comprehensive water management plan;

- d. Ground water contingency measures (Part I.C.) and/or,
- e. Invoke the reopener provisions of the permit (Part IV.O.).

C. Special Conditions – Ground Water Contingency Measures

The permittee must perform contingency measures when:

- A ground water analytical sample result from any monitoring well exceeds the respective limitation defined in Table 1 for any listed parameter; or,
- As invoked by DEQ under the impoundment contingency measures (Part I.B.).

1. The contingency measures performed must at minimum include the following:
 - a. Notify DEQ WPB, of ground water exceedance within 72 hours of the reporting date of the laboratory analysis report;
 - b. Re-sample the monitoring well(s) in which the exceedance(s) occurred (Table 5, Table 6) within 72 hours of the reporting date of the laboratory analysis report; and,
 - c. Submit all respective laboratory analytical reports to DEQ WPB, within 60 days from the report date of the original laboratory analysis report. Include a report summarizing the exceedance(s), all laboratory analysis reporting dates, DEQ notification dates, re-sampling procedures, and water quality.
2. Following submittal of the resample results, DEQ may also require the permittee to perform the following measures:
 - a. In coordination with DEQ, review water quality trends, discharge data, and other site activities to identify the probable cause and extent of the water quality changes;
 - b. Increase sampling (frequency and/or constituents);
 - c. Installation of additional ground water monitoring wells, including upgradient wells;
 - d. Installation of additional treatment to the tailings slurry and/or other wastewater streams used during milling prior to wastewater disposal to lower the exceeded parameter concentration(s);
 - e. Suspension of all milling operations until the cause of the exceedance(s) has been determined, remediation measures taken, and/or measures implemented to prevent a reoccurrence;
 - f. Supply drinking water to residences, business and irrigation districts located downgradient of mill site;
 - g. Impoundment contingency measures (Part I.B.); and/or,
 - h. Invoke the reopener provisions of the permit.

Table 1: Limitations - Ground Water Monitoring Wells		
Parameter	Units	Daily Maximum⁽¹⁾
Conventional and Other Parameters		
Nitrogen, Nitrate + Nitrite (as N)	mg/L	10.0
Metals		
Antimony, Dissolved	µg/L	6.0
Arsenic, Dissolved	µg/L	10
Beryllium, Dissolved	µg/L	4.0
Cadmium, Dissolved	µg/L	5.0
Chromium, Dissolved (all forms)	µg/L	100
Copper, Dissolved	µg/L	1,300
Lead, Dissolved	µg/L	15.0
Mercury, Dissolved	µg/L	2.0
Nickel, Dissolved	µg/L	100
Selenium, Dissolved	µg/L	50
Silver, Dissolved	µg/L	100.0
Thallium, Dissolved	µg/L	2.0
Zinc, Dissolved	µg/L	2,000
Footnotes:		
(1) See definition in Part V of permit.		

D. Monitoring and Reporting Requirements – Facility

The permittee must monitor and record the daily operational status of the facility. A report summarizing the operational status of the facility will be required on a quarterly basis. The required monitoring and reporting requirements is listed in Table 2.

Monitoring and reporting requirements are based on the daily operational status of the facility.

- The facility will be considered to be in operation if ore (or tailings) have been processed (or reprocessed) on-site during any given day occurring within the reporting period.
- The facility will be considered to be non-operational if ore (or tailings) have not been processed (or reprocessed) on-site during any given day occurring within the reporting period.

The monitoring and reporting methods used shall be in accordance with the permittee’s Standard Operating Procedures and Sampling and Analysis Plan (Part I.G.).

Operational records must be updated daily, and maintained on-site.

Submittal of discharge monitoring report forms (DMRs), or special condition reports, is required regardless of the operational status of the facility.

At no time shall the permittee mark or state “No Discharge” on any DMR form (or special condition report).

Table 2: Facility Monitoring and Reporting Requirements				
Parameter/Method	Units	Minimum Frequency	Reporting Requirements	Report Freq
Operational Status of the Facility	days	1/Day	Number of Operational Days	Quarterly

E. Monitoring and Reporting Requirements – Impoundment and Leak Detection System

The permittee must monitor and record the daily status of the impoundment(s) and leak detection system(s). A report summarizing impoundment and leak detection system conditions will be required on a quarterly basis. The required monitoring and reporting requirements is listed in Table 3.

Monitoring and reporting requirements are based on the daily operational status of the facility.

- The facility will be considered to be in operation if ore (or tailings) have been processed (or reprocessed) on-site during any given day occurring within the reporting period.
- The facility will be considered to be non-operational if ore (or tailings) have not been processed (or reprocessed) on-site during any given day occurring within the reporting period.

The monitoring and reporting methods used shall be in accordance with the permittee’s Standard Operating Procedures and Sampling and Analysis Plan (Part I.G.).

Impoundment and leak detection records must be updated daily, and maintained on-site.

Parameter/Method	Monitor Location	Operational		Non-Operational		Report Freq
		Minimum Frequency	Reporting Requirements	Minimum Frequency	Reporting Requirements	
Does the Impoundment Contain any Tailings or Milling Materials?	Pond 1 Pond 2 Pond 3	1/Day	Y or N	1/Month	Y or N	Quarterly
Does the Impoundment have an Installed and Maintained Liner in a Leak Free Condition?	Pond 1 Pond 2 Pond 3	1/Day	Y or N	1/Month	Y or N	Quarterly
Does the Impoundment have an Installed and Maintained Water Leak Detection System?	Pond 1 Pond 2 Pond 3	1/Day	Y or N	1/Month	Y or N	Quarterly
Was Water Detected in the Water Leak Detection System (WLDS)?	Pond 1 Pond 2 Pond 3	1/Day	Y, N, or NA ⁽¹⁾	1/Month	Y, N, or NA ⁽¹⁾	Quarterly

Footnotes:
 (1) Report "NA" only when the respective impoundment does not have an installed and maintained water leak detection system.

Upon detection of water in a leak detection system (Table 3), the permittee is required to undergo impoundment contingency measures of Part I.B. The reporting requirements for the contingency measures are listed in Part I.B. The sampling requirements are listed in Table 4.

Parameter analytical methods must be in accordance with the Code of Federal Regulations, Title 40, Part 136, unless specified or otherwise approved by the DEQ.

The monitoring and reporting methods used shall be in accordance with the permittee's Standard Operating Procedures and Sampling and Analysis Plan (Part I.G.).

The permittee shall document the methodology and equipment used to sample the leak detection system during all sampling events. Self-monitoring records shall be maintained in accordance with Part II.H. of this permit.

All impoundments used for operational or impounding purposes shall be constructed and at all times be maintained in a leak free condition. All impoundments used for operational or impounding purposes shall at all times have an installed and operational water leak detection system.

At no time shall the permittee mark or state "No Discharge" on any DMR form (or special condition report).

Table 4: Impoundment Water Leak Detection System (WLDS) Sampling and Reporting Requirements (Separately and as Required)			
Parameter/ Method	Units	Sample Type⁽¹⁾	Sampling and Reporting Requirements
Conventional and Other Parameters			
Conductivity, Specific (25°C)	µS/cm	Instantaneous or Grab	Part I.B.
Nitrogen, Ammonia (as N)	mg/L	Grab	
Nitrogen, Nitrate + Nitrite (as N)	mg/L	Grab	
pH	s.u.	Instantaneous or Grab	
Metals			
Antimony, Dissolved	µg/L	Grab	Part I.B.
Arsenic, Dissolved	µg/L	Grab	
Beryllium, Dissolved	µg/L	Grab	
Cadmium, Dissolved	µg/L	Grab	
Chromium, Dissolved (all forms)	µg/L	Grab	
Copper, Dissolved	µg/L	Grab	
Iron, Dissolved	µg/L	Grab	
Lead, Dissolved	µg/L	Grab	
Mercury, Dissolved	µg/L	Grab	
Nickel, Dissolved	µg/L	Grab	
Selenium, Dissolved	µg/L	Grab	
Silver, Dissolved	µg/L	Grab	
Thallium, Dissolved	µg/L	Grab	
Zinc, Dissolved	µg/L	Grab	
Footnotes:			
Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).			
s.u. = standard units			
(1) See definitions in Part V of the permit.			

F. Monitoring and Reporting Requirements – Ground Water

Ground water monitoring for monitoring wells MW-7, MW-8, MW-9, and MW-15 must be individually sampled and reported as required in Table 5. Ground water monitoring for monitoring wells WW-1, MW-3, MW-10, and MW-11 must be individually sampled and reported as required in Table 6.

Monitoring and reporting requirements are based on the daily operational status of the facility.

- The facility will be considered to be in operation if ore (or tailings) have been processed (or reprocessed) on-site during any given day occurring within the reporting period.
- The facility will be considered to be non-operational if ore (or tailings) have not been processed (or reprocessed) on-site during any given day occurring within the reporting period.

The monitoring and reporting methods used shall be in accordance with the permittee's Standard Operating Procedures and Sampling and Analysis Plan (Part I.G.).

Parameter analytical methods must be in accordance with the Code of Federal Regulations, Title 40, Part 136, unless specified or otherwise approved by the DEQ.

The permittee shall document the methodology and equipment used to sample monitoring wells during all sampling events. Self-monitoring records shall be maintained in accordance with Part II.H. of this permit.

Submittal of discharge monitoring report forms (DMRs), or special condition reports, will be required regardless of the operational status of the facility or of the condition of each individual monitoring well.

At no time shall the permittee mark or state "No Discharge" on any DMR form (or special condition report).

If any monitoring well(s) are abandoned, destroyed or decommissioned, or are no longer able to be sampled due to fluctuations in the ground water table; the permittee shall install a new well (or rehabilitate) to replace the abandoned, destroyed, decommissioned, or non-viable well(s).

Table 5: Ground Water Monitoring and Reporting, Operational and Non-Operational Requirements for: MW-7, MW-8, MW-9, and MW-15 (Separately)

Parameter/ Method	Monitor Location	Units	Sample Type ⁽¹⁾	Operational & Non-Operational		Reporting Frequency	ICIS Code
				Minimum Sampling Frequency	Reporting ⁽¹⁾⁽²⁾ Requirements		
Well Status Monitoring							
Static Water Level (SWL) ⁽³⁾⁽⁴⁾	MW-7,8,9,15	ft-bmp	Instantaneous	1/Quarter	Daily Minimum, and Daily Maximum, or NW ⁽⁴⁾	Quarterly	85820
Total Depth (TD) ⁽⁵⁾⁽⁶⁾	MW-7,8,9,15	ft-bmp	Instantaneous	1/Quarter	Daily Minimum Daily Maximum	Quarterly	
Well Condition ⁽⁷⁾⁽⁸⁾	MW-7,8,9,15	-	Instantaneous	1/Quarter	ABD, DES, DEC, NV, or V ⁽⁷⁾	Quarterly	
Conventional and Other Parameters							
Conductivity, Specific (25°C)	MW-7,8,9,15	µS/cm	Instantaneous or Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	
Cyanide, Total	MW-7,8,9,15	mg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	00720
Nitrogen, Ammonia (as N)	MW-7,8,9,15	mg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	34726
Nitrogen, Nitrate + Nitrite (as N)	MW-7,8,9,15	mg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	51450
pH	MW-7,8,9,15	s.u.	Instantaneous or Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	
Metals							
Arsenic, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	01000
Cadmium, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	01025
Copper, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	01040
Iron, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	01046
Lead, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	01049
Zinc, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Quarter	Daily Maximum Quarterly Average	Quarterly	01090
Antimony, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Year	Daily Maximum Annual Average	Annually	01097
Beryllium, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Year	Daily Maximum Annual Average	Annually	01010
Chromium, Dissolved (all forms)	MW-7,8,9,15	µg/L	Grab	1/Year	Daily Maximum Annual Average	Annually	01030
Mercury, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Year	Daily Maximum Annual Average	Annually	71890
Nickel, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Year	Daily Maximum Annual Average	Annually	01065
Selenium, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Year	Daily Maximum Annual Average	Annually	01145
Silver, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Year	Daily Maximum Annual Average	Annually	01075
Thallium, Dissolved	MW-7,8,9,15	µg/L	Grab	1/Year	Daily Maximum Annual Average	Annually	01057

Footnotes:
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 ft-bmp = feet below measuring point
 The location of the measuring point for each monitoring well shall be identified within the SOP/SAP Reports.
 s.u. = standard units
 (1) See definitions in Part V of the permit.
 (2) Daily Maximum: Report highest measured daily value for the reporting period on Discharge Monitoring Report (DMR).
 (3) Static water level measurements shall be measured to within 1/100th of one foot.
 (4) If no water is encountered in the inner well casing, "NW" shall be reported.
 (5) Total depth measurements shall be measured to within 1/100th of one foot.
 (6) Total depth measurement shall be to the bottom (or obstruction) of the inner well casing
 (7) Report the current condition of the well. The condition shall be reported as: abandoned, destroyed, decommissioned, non-viable, or viable. Report "ABD" for abandoned, "DES" for destroyed, "DEC" for decommissioned, "NV" for non-viable, or "V" for viable.
 (8) The well condition status shall only be reported as viable "V" if water is present in the inner well casing, and the water is representative of the shallow ground water bearing zone, and a sample is able to be collected.

Table 6: Ground Water Monitoring and Reporting, Operational and Non-Operational Requirements for: WW-1, MW-3, MW-10, and MW-11 (Separately)

Parameter/ Method	Monitor Location	Units	Sample Type ⁽²⁾	Operational	Non-Operational ⁽¹⁾	Reporting ⁽²⁾⁽³⁾ Requirements	Reporting Freq	ICIS Code
				Minimum Sampling Frequency	Minimum Sampling Frequency			
Well Status Monitoring								
Static Water Level (SWL) ⁽⁴⁾⁽⁵⁾	MW-3,10,11	ft-bmp	Instantaneous	1/Quarter	1/Quarter	Daily Minimum, and Daily Maximum; or NW ⁽⁵⁾	Quarterly	85820
Total Depth (TD) ⁽⁶⁾⁽⁷⁾	MW-3,10,11	ft-bmp	Instantaneous	1/Quarter	1/Quarter	Daily Minimum Daily Maximum	Quarterly	
Well Condition ⁽⁸⁾⁽⁹⁾	MW-3,10,11	-	Instantaneous	1/Quarter	1/Quarter	ABD, DES, DEC, NV, or V ⁽⁸⁾	Quarterly	
Conventional and Other Parameters								
Conductivity, Specific (25°C)	WW-1 MW-10,11	µS/cm	Instantaneous or Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	
Cyanide, Total	WW-1 MW-10,11	mg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	00720
Nitrogen, Ammonia (as N)	WW-1 MW-10,11	mg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	34726
Nitrogen, Nitrate + Nitrite (as N)	WW-1 MW-10,11	mg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	51450
pH	WW-1 MW-10,11	s.u.	Instantaneous or Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	
Metals								
Arsenic, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	01000
Cadmium, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	01025
Copper, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	01040
Iron, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	01046
Lead, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	01049
Zinc, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Quarter	1/Year	Daily Maximum Annual Average	Annually	01090
Antimony, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Year	1/Year	Daily Maximum Annual Average	Annually	01097
Beryllium, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Year	1/Year	Daily Maximum Annual Average	Annually	01010
Chromium, Dissolved (all forms)	WW-1 MW-10,11	µg/L	Grab	1/Year	1/Year	Daily Maximum Annual Average	Annually	01030
Mercury, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Year	1/Year	Daily Maximum Annual Average	Annually	71890
Nickel, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Year	1/Year	Daily Maximum Annual Average	Annually	01065
Selenium, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Year	1/Year	Daily Maximum Annual Average	Annually	01145
Silver, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Year	1/Year	Daily Maximum Annual Average	Annually	01075
Thallium, Dissolved	WW-1 MW-10,11	µg/L	Grab	1/Year	1/Year	Daily Maximum Annual Average	Annually	01057

Footnotes:

Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).

ft-bmp = feet below measuring point

The location of the measuring point for each monitoring well shall be identified within the SOP/SAP Reports.

s.u. = standard units

(1) Reporting of Quarterly DMRs is always required regardless of the operational status.

(2) See definitions in Part V of the permit.

(3) Daily Maximum: Report highest measured daily value for the reporting period on Discharge Monitoring Report (DMR).

(4) Static water level measurements shall be measured to within 1/100th of one foot.

(5) If no water is encountered in the inner well casing, "NW" shall be reported.

(6) Total depth measurements shall be measured to within 1/100th of one foot.

(7) Total depth measurement shall be to the bottom (or obstruction) of the inner well casing.

(8) Report the current condition of the well. The condition shall be reported as: abandoned, destroyed, decommissioned, non-viable, or viable. Report "ABD" for abandoned, "DES" for destroyed, "DEC" for decommissioned, "NV" for non-viable, or "V" for viable.

(9) The well condition status shall only be reported as viable "V" if: water is present in the inner well casing, and the water is representative of the shallow ground water bearing zone, and a sample is able to be collected.

G. Special Conditions - Standard Operating Procedures/Sampling and Analysis Plan

The permittee must maintain a Standard Operating Procedures and Sampling and Analysis Plan. The plan shall document procedures and plans to be used in daily operations. The plan, at a minimum, must include the daily monitoring, sampling, recording, and reporting of the following topics:

- facility operations,
- milling operations,
- impoundment conditions,
- impoundment water leak detection system(s),
- monitoring well monitoring, and,
- monitoring well conditions.

The plan needs to be updated as the permittee adopts new operating or sampling procedures. A copy of the plan needs to be maintained on-site at all times.

H. Compliance Schedule

Table 7: Compliance Schedule			
Action	Freq.	Scheduled Completion Date of Action⁽¹⁾	Scheduled Report Due Date.⁽²⁾
Develop and implement (or update) a site specific Standard Operating Procedures (SOP) and Sampling and Analysis Plan (SAP).	Single event	January 01, 2016	January 28, 2016
Footnotes: (1) The actions must be completed on or before the scheduled completion dates. (2) Reports must be received by DEQ on or before the scheduled report due dates. The reports must include all information as required for each applicable action as listed in Part I of permit.			

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling

Samples taken in compliance with the monitoring requirements established under Part I of the permit shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.

B. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations, unless other test procedures have been specified in this permit. All flow-measuring and flow-recording devices used in obtaining the data submitted in self-monitoring reports must indicate values within 10 percent of the actual flow being measured.

C. Penalties for Tampering

The Montana Water Quality Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$25,000, or by imprisonment for not more than six months, or by both.

D. Reporting of Monitoring Results

Monitoring results must be reported on a Discharge Monitoring Report (DMR) EPA form 3320-1. Monitoring results must be submitted in either electronic or paper format and be postmarked no later than the 28th day of the month following the end of the monitoring period. If no discharge occurs during the reporting period, "No Discharge" must be reported on the report form. Legible copies of these, and all other reports required herein, must be signed and certified in accordance with Part IV.G. "Signatory Requirements" of this permit and submitted to the Department at the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901
Phone: (406) 444-3080

E. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted to the Department in either electronic or paper format and be postmarked no later than 14 days following each schedule date unless otherwise specified in this permit.

F. Additional Monitoring by the Permittee

If the permittee monitors any additional pollutant or any pollutant more frequently than required by this permit using approved analytical methods as specified in this permit, the results of this monitoring shall be included in the analysis and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

G. Records Contents

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The initials or name(s) of the individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The time analyses were initiated;
5. The initials or name(s) of individual(s) who performed the analyses;
6. References and written procedures, when available, for the analytical techniques or methods used; and
7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

H. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by the request of the Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MGWPCS permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee shall report any serious incidents of noncompliance affecting the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 324-4777. The following examples are considered serious incidents:

- a. Any noncompliance which may seriously endanger health or the environment; or
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G. of this permit, "Bypass of Treatment Facilities").
2. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
- a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
 - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
3. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, at (406) 444-3080.
4. Reports shall be submitted to the addresses in Part II.D. of this permit, "Reporting of Monitoring Results."

J. Other Noncompliance Reporting

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.D. of this permit are submitted. The reports shall contain the information listed in Part II.I.2. of this permit.

K. Inspection and Entry

The permittee shall allow the head of the Department, the Director, or an authorized representative thereof, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give the Department advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.

B. Penalties for Violations of Permit Conditions

The Montana Water Quality Act provides that any person who violates a permit condition of the Act is subject to civil or criminal penalties not to exceed \$25,000 per day or one year in prison, or both, for the first conviction, and \$50,000 per day of violation or by imprisonment for not more than two years, or both, for subsequent convictions. MCA 75-5-611(9)(a) also provides for administrative penalties not to exceed \$10,000 for each day of violation and up to a maximum not to exceed \$100,000 for any related series of violations. Except as provided in Part III.G. of this permit, "Bypass of Treatment Facilities," nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

F. Removed Substances

Collected screenings, grit, solids, sludge, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard.

G. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.G.2. and III.G.3. of this permit.

2. Notice:

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass.
- b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.I. of this permit, "Twenty-four Hour Reporting."

3. Prohibition of bypass:

- a. Bypass is prohibited and the Department may take enforcement action against a permittee for a bypass, unless:
 - 1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - 3) The permittee submitted notices as required under Part III.G.2. of this permit.
- b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part III.G.3.a. of this permit.

IV. GENERAL REQUIREMENTS

A. Planned Changes

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit; or
2. There are any planned substantial changes to the existing sewage sludge management practices of storage and disposal. The permittee shall give the Department notice of any planned changes at least 180 days prior to their implementation.

B. Anticipated Noncompliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Permit Actions

This permit may be revoked, modified and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application must be submitted at least 180 days before the expiration date of this permit.

E. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for revoking, modifying and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

F. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information with a narrative explanation of the circumstances of the omission or incorrect submittal and why they weren't supplied earlier.

G. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified.

1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer:
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Department; and
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters (a duly authorized representative may thus be either a named individual or an individual occupying a named position).
3. Changes to authorization. If an authorization under Part IV.G.2. of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part IV.G.2. of this permit must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this section shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible

for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

H. Penalties for Falsification of Reports

The Montana Water Quality Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the EPA. Permit applications, permits and effluent data shall not be considered confidential and shall also be available for public inspection.

J. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

K. Property or Water Rights

The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property, any invasion of personal rights, or any infringement of federal, state or local laws or regulations.

L. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers

This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Department at least 30 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
3. The Department does not notify the existing permittee and the proposed new permittee of the intent to revoke or modify and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part IV.M.2. of this permit; and
4. Required annual and application fees have been paid.

N. Fees

The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, the Department may:

1. Impose additional fee assessment(s) computed at the rates established under ARM 17.30.201; and
2. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

O. Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

1. Water Quality Standards: The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit; or
2. Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values, excluding mixing zones designated by ARM 17.30.501-518, for parameters included in the permit or others, the Department may modify the effluent limits or water management plan.

V. DEFINITIONS

1. **“30-day (and Monthly) Average”** other than for *E. coli* bacteria, means the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria. The calendar month shall be used for purposes of reporting self-monitoring data.
2. **“90-day (and Quarterly) Average”** other than for *E. coli* bacteria, means the arithmetic average of all samples collected during a consecutive 90-day period or calendar quarter, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria. The calendar month shall be used for purposes of reporting self-monitoring data.
3. **“180-day (and Six-Month or Semi-Annual) Average”** other than for *E. coli* bacteria, means the arithmetic average of all samples collected during a consecutive 180-day period or calendar half-year, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria. The calendar month shall be used for purposes of reporting self-monitoring data.
4. **“Annual Average Load”** means the arithmetic mean of all 30-day or monthly average loads reported during the calendar year for a monitored parameter.
5. **“Annual Maximum Limit”** means the maximum allowable discharge of a pollutant during a calendar year.
6. **“BOD₅”** means the five-day measure of pollutant parameter biochemical oxygen demand.
7. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility.
8. **“Composite Sample”** means a sample that consists of two or more discrete aliquots. Composite samples shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

- c. Constant sample volume, time interval between samples proportional to flow (i.e. sample taken every “X” gallons of flow); and,
 - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
9. “**Continuous**” means the measurement of flow rates which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance process changes, or other similar activities.
10. “**Daily Discharge**” means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.
11. “**Department**” means the Montana Department of Environmental Quality.
12. “**Discharge**” means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.
13. “**Grab Sample**” means a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.
14. “**Instantaneous**” measurement, for monitoring requirements, means a single reading, observation, or measurement.
15. “**Load Limits**” are mass-based discharge limits expressed in units such as lbs/day
16. “**Maximum Daily Limit**” means the maximum allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.
17. “**Mixing Zone**” means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.

18. **“Nondegradation”** means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by the Department prior to April 29, 1993.
19. **“Severe Property Damage”** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
20. **“TMDL”** means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of the wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.
21. **“TSS”** means the pollutant parameter total suspended solids.