Permit No.: MTX000052

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.*,

Colstrip Energy Limited Partnership

Must operate its facility, **Colstrip Energy Limited Partnership Ash Monofills**, in accordance with the limitations, monitoring requirements, best management practices, rehabilitation, and other provisions set forth herein.

The facility is located at:
NWNE Section 32, Township 03 North, Range 41 East
Latitude: 45.97529, Longitude: -106.65551
Rosebud County

Authorization is limited to the conditions specifically listed in the permit. The permit requirements and special conditions specified herein support the protection of state waters.

This permit shall become effective: **March 01, 2020.**

This permit and the authorization to discharge shall expire at midnight, **February 28, 2025.**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

Jon Kenning, Chief
Water Protection Bureau

Issue Date: January 10, 2020

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I. EFFLUENT LIMITS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Description of Discharge Points and Mixing Zones

A discharge of pollutants to state waters is not authorized. 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 Part 75-5-632 of the Montana Water Quality Act.

Monofill	Description
001	**Coal Ash Monofill-Inactive Disposal Area** **Location:** NWNE & NENW Section 32, Township 03 North, Range 41 East Latitude: 45.97544°, Longitude: -106.65963° Rosebud County **Mixing Zone:** A mixing zone has not been authorized. **Treatment Works:** None
002	**Coal Ash Monofill-Active Disposal Area** **Location:** SWSW & SESW, Section 29, Township 03 North, Range 41 East Latitude: 45.97897°, Longitude: -106.66498° Rosebud County **Mixing Zone:** A mixing zone has not been authorized. **Treatment Works:** None

B. Effluent Limitations and Prohibitions

No numeric effluent limits have been developed for this permit cycle.

Material deposited at the monofill is limited to the coal ash produced at the Colstrip Energy Limited Partnership's electrical generating power plant along with a limestone amendment.

All ash deposits at the monofill shall be hydrated with water within 20 minutes of disposal.

All ash, industrial wastewater, and ground water laboratory analytical reports must have analyte reporting levels (RL) that meet or exceed the required reporting value (RRV) as listed in DEQ Circular 7 unless otherwise approved by DEQ. This is only for concentration unit based analyses, and only for Circular 7 listed parameters that have an associated RRV.

C. Monitoring and Reporting Requirements

1. Fly Ash and Bottom Ash Sampling and Reporting Requirements

- Monitoring and reporting of coal fly and bottom ash is required through the term of the permit.
- Ash sampling is required at minimum once per calendar year.
- Ash samples must be collected prior to disposal and hydration.
- An ash sample needs to be collected and reported if the facility was operational at any time during the annual reporting period.
- Monitoring requirements are listed in Table 1 and Table 2.

- Submittal of the annual reports will be required regardless of the operational status of the facility.
- A cumulative record of all individual sampling results must be submitted to DEQ annually through term of the permit.
- Reporting requirements are listed in Table 1 and Table 2. Reporting due dates are listed in Table 13.

Table 1: Ash Sampling Requirements - Fly Ash - EFF-001

Sampling Location: Prior to Disposal and Hydration

Sampling Frequency: Annually

Required Laboratory Method: ASTM D3987-06 for all parameters except EPA Method 6010C for the % by weight measurements[1]

Ash Reporting Requirements[2]

Cumulative Record of all Individual Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement[4]	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary						
		Sample Collection Date	Operational during sampling period? (y/n)	Lab Result[5]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[6]	Count of Samples Collected	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
										Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L														
Chloride [as Cl]	mg/L														
Fluoride, Total [as F]	mg/L														
Hardness, Total [as $CaCO_3$]	mg/L														
Nitrogen, Nitrite + Nitrate [as N	mg/L														
Nitrogen, Total Kjeldahl [as N]	mg/L														
Nitrogen, Total [as N]	mg/L														
Nitrogen [as NO_x]	wt%														
pH	s.u.														
Sulfate, Total [as S]	mg/L														
Sulfate [as SO_4]	mg/L														
Sulfide [as S^{2-}]	mg/L														
Sulfur, Total	wt%														
Sulfur [as SO_x]	wt%														
Total ash deposition - mass	tons/year														
Aluminum [as Al]	mg/L														
Aluminum [as Al_2O_3]	wt%														
Antimony [as Sb]	mg/L														
Antimony [as Sb_2O_x]	wt%														
Arsenic [as As]	mg/L														
Arsenic [as As_2O_x]	wt%														
Barium [as Ba]	mg/L														
Barium [as BaO]	wt%														
Beryllium [as Be]	mg/L														
Beryllium [as BeO]	wt%														
Boron [as B]	mg/L														
Boron [as B_2O_3]	wt%														
Cadmium [as Cd]	mg/L														
Cadmium [as CdO]	wt%														
Calcium [as Ca]	mg/L														
Calcium [as CaO]	wt%														
Chromium, all forms [as Cr]	mg/L														
Chromium, all forms [as Cr_xO_x]	wt%														

Table 1, Cont'd: Ash Sampling Requirements - Fly Ash - EFF-001

Analyte/Measurement[4]	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary						
		Sample Collection Date	Operational during sampling period? (y/n)	Lab Result[5]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[6]	Count of Samples Collected	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
										Minimum	Average	Median	Maximum		
Cobalt [as Co]	mg/L														
Cobalt [as Co_xO_x]	wt%														
Copper [as Cu]	mg/L														
Copper [as Cu_xO]	wt%														
Lead [as Pb]	mg/L														
Lead [as Pb_xO_x]	wt%														
Lithium [as Li]	mg/L														
Lithium [as Li_2O_x]	wt%														
Magnesium [as Mg]	mg/L														
Magnesium [as MgO]	wt%														
Manganese [as Mn]	mg/L														
Manganese [as MnO_2]	wt%														
Mercury [as Hg]	mg/L														
Molybdenum [as Mo]	mg/L														
Molybdenum [as MoO_x]	wt%														
Radium 226 & 228 comb	pCi/L														
Selenium [as Se]	mg/L														
Selenium [as SeO_x]	wt%														
Strontium [as Sr]	mg/L														
Strontium [as SrO_x]	wt%														
Thallium [as Tl]	mg/L														
Thallium [as Tl_2O_x]	wt%														
Vanadium [as V]	mg/L														
Vanadium [as V_xO_x]	wt%														
Zinc [as Zn]	mg/L														
Zinc [as ZnO]	wt%														

Footnotes:
s.u.: standard units
pCi: picocurie
wt%: percent by weight
Submittal of reports will be required regardless of the operational status of the facility.
(1) The listed laboratory analytical methods must be used unless written approval by DEQ is received. The laboratory method used shall meet or exceed the Required Reporting Values listed in DEQ Circular 7, unless otherwise approved by
(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
(3) Each submitted report must cumulate all samples collected to date, starting with the permit effective date and continuing through the term of the permit.
(4) All metal oxide analyses must use the compounds and oxidation states that are most commonly found after combustion in air. The permittee's laboratory chemist can certify which compounds and oxidation states are most common in the facility ash. The permittee may not have to analyze less common compounds and oxidation states if certification is provided to DEQ and is reviewed and approved.
(5) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
(6) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 2: Ash Sampling Requirements - Bottom Ash - EFF-002

Sampling Location: Prior to Disposal and Hydration

Sampling Frequency: Annually

Required Laboratory Method: ASTM D3987-06 for all parameters except EPA Method 6010C for the % by weight measurements[1]

Ash Reporting Requirements[2]

Cumulative Record of all Individual Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement[4]	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary						
		Sample Collection Date	Operational during sampling period? (y/n)	Lab Result[5]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[6]	Count of Samples Collected	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
										Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L														
Chloride [as Cl]	mg/L														
Fluoride, Total [as F]	mg/L														
Hardness, Total [as $CaCO_3$]	mg/L														
Nitrogen, Nitrite + Nitrate [as N	mg/L														
Nitrogen, Total Kjeldahl [as N]	mg/L														
Nitrogen, Total [as N]	mg/L														
Nitrogen [as NO_x]	wt%														
pH	s.u.														
Sulfate, Total [as S]	mg/L														
Sulfate [as SO_4]	mg/L														
Sulfide [as S^{2-}]	mg/L														
Sulfur, Total	wt%														
Sulfur [as SO_x]	wt%														
Total ash deposition - mass	tons/year														
Aluminum [as Al]	mg/L														
Aluminum [as Al_2O_3]	wt%														
Antimony [as Sb]	mg/L														
Antimony [as Sb_2O_x]	wt%														
Arsenic [as As]	mg/L														
Arsenic [as As_2O_x]	wt%														
Barium [as Ba]	mg/L														
Barium [as BaO]	wt%														
Beryllium [as Be]	mg/L														
Beryllium [as BeO]	wt%														
Boron [as B]	mg/L														
Boron [as B_2O_3]	wt%														
Cadmium [as Cd]	mg/L														
Cadmium [as CdO]	wt%														
Calcium [as Ca]	mg/L														
Calcium [as CaO]	wt%														
Chromium, all forms [as Cr]	mg/L														
Chromium, all forms [as Cr_xO_x]	wt%														

Table 2, Cont'd: Ash Sampling Requirements - Bottom Ash - EFF-002

Analyte/Measurement[4]	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary						
		Sample Collection Date	Operational during sampling period? (y/n)	Lab Result[5]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[6]	Count of Samples Collected	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
										Minimum	Average	Median	Maximum		
Cobalt [as Co]	mg/L														
Cobalt [as Co_xO_x]	wt%														
Copper [as Cu]	mg/L														
Copper [as Cu_xO]	wt%														
Lead [as Pb]	mg/L														
Lead [as Pb_xO_x]	wt%														
Lithium [as Li]	mg/L														
Lithium [as Li_2O_x]	wt%														
Magnesium [as Mg]	mg/L														
Magnesium [as MgO]	wt%														
Manganese [as Mn]	mg/L														
Manganese [as MnO_2]	wt%														
Mercury [as Hg]	mg/L														
Molybdenum [as Mo]	mg/L														
Molybdenum [as MoO_x]	wt%														
Radium 226 & 228 comb	pCi/L														
Selenium [as Se]	mg/L														
Selenium [as SeO_x]	wt%														
Strontium [as Sr]	mg/L														
Strontium [as SrO_x]	wt%														
Thallium [as Tl]	mg/L														
Thallium [as Tl_2O_x]	wt%														
Vanadium [as V]	mg/L														
Vanadium [as V_xO_x]	wt%														
Zinc [as Zn]	mg/L														
Zinc [as ZnO]	wt%														

Footnotes:
s.u.: standard units
pCi: picocurie
wt%: percent by weight
Submittal of reports will be required regardless of the operational status of the facility.
(1) The listed laboratory analytical methods must be used unless written approval by DEQ is received. The laboratory method used shall meet or exceed the Required Reporting Values listed in DEQ Circular 7, unless otherwise approved by
(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
(3) Each submitted report must cumulate all samples collected to date, starting with the permit effective date and continuing through the term of the permit.
(4) All metal oxide analyses must use the compounds and oxidation states that are most commonly found after combustion in air. The permittee's laboratory chemist can certify which compounds and oxidation states are most common in the facility ash. The permittee may not have to analyze less common compounds and oxidation states if certification is provided to DEQ and is reviewed and approved.
(5) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
(6) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

2. Industrial Wastewater Sampling and Reporting Requirements

- Monitoring and reporting of the wastewater produced by the boiler and turbine steam operations is required through the term of the permit.
- Wastewater samples shall be collected from the wastewater holdup tank (EFF-003).
- Wastewater sampling is required at minimum twice per calendar year.
- A wastewater sample needs to be collected and reported if the facility was operational at any time during each semi-annual sampling period.
- Monitoring requirements are listed in Table 3.

- Submittal of the annual report will be required regardless of the operational status of the facility.
- A cumulative record of all individual sampling results must be submitted to DEQ annually through term of the permit.
- Reporting requirements are listed in Table 3. Reporting due dates are listed in Table 13.

Table 3: Industrial Wastewater Monitoring Requirements - EFF-003

Sampling Frequency: Semi-Annually

Required Laboratory Method: 40 CFR 136[1]

Industrial Wastewater Reporting Requirements[2]

Cumulative Record of all Individual Sampling Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary								
		Sample Collection Date	Operational during sampling period? (y/n)	Lab Result[4]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[5]	Count of Samples Collected	Count of Dry Underdrain Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L															
Chloride [as Cl]	mg/L															
Fluoride, Total [as F]	mg/L															
Hardness, Total [as $CaCO_3$]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total Kjeldahl [as N]	mg/L															
Nitrogen, Total [as N]	mg/L															
Oil & Grease [HEM]	mg/L															
pH	s.u.															
Specific Conductivity @ 25°C	µS/cm															
Solids, total dissolved	mg/L															
Solids, total suspended	mg/L															
Sulfate, Total [as S]	mg/L															
Sulfate [as SO_4]	mg/L															
Sulfide [as S^{2-}]	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [as Be]	mg/L															
Boron [as B]	mg/L															
Cadmium [as Cd]	mg/L															
Calcium [as Ca]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Cobalt [as Co]	mg/L															
Copper [as Cu]	mg/L															
Lead [as Pb]	mg/L															
Lithium [as Li]	mg/L															
Magnesium [as Mg]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Molybdenum [as Mo]	mg/L															
Radium 226 & 228 comb	pCi/L															
Selenium [as Se]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Vanadium [as V]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:

s.u.: standard units

pCi: picocurie

Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the underdrain. Footnote 5 further discusses sample requirements.

(1) The listed laboratory analytical method must be used unless written approval by DEQ is received.

(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition. All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.

(3) Each submitted report must cumulate all observations and samples collected to date, starting with the permit effective date and continuing through the term of the permit.

(4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.

(5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

3. Ground Water Monitoring and Reporting Requirements

- Upon issuance, the permittee shall continue to monitor the following monitoring wells: OMW-1, OMW-2, OMW-3, OMW-4, OMW-5, OMW-6, OMW-7, OMW-8, and OMW-9 (Table 3, Fact Sheet).
- Monitoring shall take place even when the facility is nonoperational.
- The monitoring frequency for each monitoring well is respectively listed within the monitoring requirement tables.
- Monitoring and reporting must be completed in accordance with the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan. (Part I.G.).
- If any of the monitoring wells are abandoned, destroyed, decommissioned, or non-viable; or are no longer able to be sampled due to fluctuations in the ground water table; the permittee shall install (or rehab) a new well to replace the abandoned, destroyed, decommissioned, or non-viable well(s).
- Monitoring requirements are listed in Tables 4 through Table 12.

- Submittal of annual reports will be required regardless of the operational status of the facility, dry well, or non-viable well conditions.
- A cumulative record of all monitoring records and individual sampling results must be submitted to DEQ annually through term of the permit.
- Reporting requirements are listed in Table 4 through Table 12. Reporting due dates are listed in Table 13.

Table 4: Ground Water Monitoring Requirements for OMW-5

Monitoring Frequency: Weekly[1] from April 1st through June 30th; Monthly from July 1st through March 31st.
Required Laboratory Method: 40 CFR 136[2]

Ground Water Reporting Requirements[3]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle
Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[4]
Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary								
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[5]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[6]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L															
Chloride [as Cl]	mg/L															
Fluoride, Total [as F]	mg/L															
Hardness, Total [as $CaCO_3$]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total Kjeldahl [as N]	mg/L															
Nitrogen, Total [as N]	mg/L															
Organic Carbon, Total	mg/L															
pH	s.u.															
Specific Conductivity @ 25°C	µS/cm															
Solids, total dissolved	mg/L															
Sulfate, Total [as S]	mg/L															
Sulfate [as SO_4]	mg/L															
Sulfide [as S^{2-}]	mg/L															
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [as Be]	mg/L															
Boron [as B]	mg/L															
Cadmium [as Cd]	mg/L															
Calcium [as Ca]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Cobalt [as Co]	mg/L															
Copper [as Cu]	mg/L															
Lead [as Pb]	mg/L															
Lithium [as Li]	mg/L															
Magnesium [as Mg]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Molybdenum [as Mo]	mg/L															
Radium 226 & 228 comb	pCi/L															
Selenium [as Se]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Vanadium [as V]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
ft-bmp: feet below measuring point.
ft-MSL: feet above mean sea level
s.u.: standard units
pCi: picocurie
Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
(1) Monitoring of the ambient well is required weekly during the period of April, May, and June of each calendar year thru the term of the permit. A sample is required when water is present, however, only three samples in total are required to be collected during this period.
Monitoring of SWLs and TD will continue weekly during this period regardless of the number of samples collected. Weekly monitoring may commence on the first full calendar week in April.
(2) The listed laboratory analytical method must be used unless written approval by DEQ is received.
(3) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
(4) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
(5) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
(6) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 5: Ground Water Monitoring Requirements for OMW-6

Monitoring Frequency: Weekly[1] from April 1st through June 30th; Monthly from July 1st through March 31st.

Required Laboratory Method: 40 CFR 136[2]

Ground Water Reporting Requirements[3]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[4]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[5]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[6]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L															
Chloride [as Cl]	mg/L															
Fluoride, Total [as F]	mg/L															
Hardness, Total [as $CaCO_3$]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total Kjeldahl [as N]	mg/L															
Nitrogen, Total [as N]	mg/L															
Organic Carbon, Total	mg/L															
pH	s.u.															
Specific Conductivity @ 25°C	µS/cm															
Solids, total dissolved	mg/L															
Sulfate, Total [as S]	mg/L															
Sulfate [as SO_4]	mg/L															
Sulfide [as S^{2-}]	mg/L															
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [as Be]	mg/L															
Boron [as B]	mg/L															
Cadmium [as Cd]	mg/L															
Calcium [as Ca]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Cobalt [as Co]	mg/L															
Copper [as Cu]	mg/L															
Lead [as Pb]	mg/L															
Lithium [as Li]	mg/L															
Magnesium [as Mg]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Molybdenum [as Mo]	mg/L															
Radium 226 & 228 comb	pCi/L															
Selenium [as Se]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Vanadium [as V]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:

ft-bmp: feet below measuring point.

ft-MSL: feet above mean sea level

s.u.: standard units

pCi: picocurie

Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.

(1) Monitoring of the ambient well is required weekly during the period of April, May, and June of each calendar year thru the term of the permit. A sample is required when water is present, however, only three samples in total are required to be collected during this period. Monitoring of SWLs and TD will continue weekly during this period regardless of the number of samples collected. Weekly monitoring may commence on the first full calendar week in April.

(2) The listed laboratory analytical method must be used unless written approval by DEQ is received.

(3) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.

(4) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.

(5) For nondetects, the laboratory reporting level must be entered in as the respective lab result.

(6) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 6: Ground Water Monitoring Requirements for OMW-9

Monitoring Frequency: Weekly[1] from April 1st through June 30th; Monthly from July 1st through March 31st.
Required Laboratory Method: 40 CFR 136[2]

Ground Water Reporting Requirements[3]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle
Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[4]
Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[5]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[6]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L															
Chloride [as Cl]	mg/L															
Fluoride, Total [as F]	mg/L															
Hardness, Total [as $CaCO_3$]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total Kjeldahl [as N]	mg/L															
Nitrogen, Total [as N]	mg/L															
Organic Carbon, Total	mg/L															
pH	s.u.															
Specific Conductivity @ 25°C	µS/cm															
Solids, total dissolved	mg/L															
Sulfate, Total [as S]	mg/L															
Sulfate [as SO_4]	mg/L															
Sulfide [as S^{2-}]	mg/L															
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [as Be]	mg/L															
Boron [as B]	mg/L															
Cadmium [as Cd]	mg/L															
Calcium [as Ca]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Cobalt [as Co]	mg/L															
Copper [as Cu]	mg/L															
Lead [as Pb]	mg/L															
Lithium [as Li]	mg/L															
Magnesium [as Mg]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Molybdenum [as Mo]	mg/L															
Radium 226 & 228 comb	pCi/L															
Selenium [as Se]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Vanadium [as V]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
ft-bmp: feet below measuring point.
ft-MSL: feet above mean sea level
s.u.: standard units
pCi: picocurie
Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
(1) Monitoring of the ambient well is required weekly during the period of April, May, and June of each calendar year thru the term of the permit. A sample is required when water is present, however, only three samples in total are required to be collected during this period.
Monitoring of SWLs and TD will continue weekly during this period regardless of the number of samples collected. Weekly monitoring may commence on the first full calendar week in April.
(2) The listed laboratory analytical method must be used unless written approval by DEQ is received.
(3) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
(4) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
(5) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
(6) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 7: Ground Water Monitoring Requirements for OMW-1

Sampling Frequency: Quarterly

Required Laboratory Method: 40 CFR 136[1]

Ground Water Reporting Requirements[2]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[4]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[5]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L															
Chloride [as Cl]	mg/L															
Fluoride, Total [as F]	mg/L															
Hardness, Total [as $CaCO_3$]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total Kjeldahl [as N]	mg/L															
Nitrogen, Total [as N]	mg/L															
Organic Carbon, Total	mg/L															
pH	s.u.															
Specific Conductivity @ 25°C	µS/cm															
Solids, total dissolved	mg/L															
Sulfate, Total [as S]	mg/L															
Sulfate [as SO_4]	mg/L															
Sulfide [as S^{2-}]	mg/L															
Temperature	°C															
Total Well Depth	ft-bmp															
Static Water Level	ft-bmp															
Static Water Level	ft-MSL															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [as Be]	mg/L															
Boron [as B]	mg/L															
Cadmium [as Cd]	mg/L															
Calcium [as Ca]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Cobalt [as Co]	mg/L															
Copper [as Cu]	mg/L															
Lead [as Pb]	mg/L															
Lithium [as Li]	mg/L															
Magnesium [as Mg]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Molybdenum [as Mo]	mg/L															
Radium 226 & 228 comb	pCi/L															
Selenium [as Se]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Vanadium [as V]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:

ft-bmp: feet below measuring point.

ft-MSL: feet above mean sea level

s.u.: standard units

pCi: picocurie

Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.

(1) The listed laboratory analytical method must be used unless written approval by DEQ is received.

(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.

(3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.

(4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.

(5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 8: Ground Water Monitoring Requirements for OMW-2

Sampling Frequency: Quarterly

Required Laboratory Method: 40 CFR 136[1]

Ground Water Reporting Requirements[2]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[4]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[5]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L															
Chloride [as Cl]	mg/L															
Fluoride, Total [as F]	mg/L															
Hardness, Total [as $CaCO_3$]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total Kjeldahl [as N]	mg/L															
Nitrogen, Total [as N]	mg/L															
Organic Carbon, Total	mg/L															
pH	s.u.															
Specific Conductivity @ 25°C	µS/cm															
Solids, total dissolved	mg/L															
Sulfate, Total [as S]	mg/L															
Sulfate [as SO_4]	mg/L															
Sulfide [as S^{2-}]	mg/L															
Temperature	°C															
Total Well Depth	ft-bmp															
Static Water Level	ft-bmp															
Static Water Level	ft-MSL															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [as Be]	mg/L															
Boron [as B]	mg/L															
Cadmium [as Cd]	mg/L															
Calcium [as Ca]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Cobalt [as Co]	mg/L															
Copper [as Cu]	mg/L															
Lead [as Pb]	mg/L															
Lithium [as Li]	mg/L															
Magnesium [as Mg]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Molybdenum [as Mo]	mg/L															
Radium 226 & 228 comb	pCi/L															
Selenium [as Se]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Vanadium [as V]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:

ft-bmp: feet below measuring point.

ft-MSL: feet above mean sea level

s.u.: standard units

pCi: picocurie

Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.

(1) The listed laboratory analytical method must be used unless written approval by DEQ is received.

(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.

(3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.

(4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.

(5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 9: Ground Water Monitoring Requirements for OMW-7

Sampling Frequency: Quarterly

Required Laboratory Method: 40 CFR 136[1]

Ground Water Reporting Requirements[2]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary								
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[4]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[5]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L															
Chloride [as Cl]	mg/L															
Fluoride, Total [as F]	mg/L															
Hardness, Total [as $CaCO_3$]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total Kjeldahl [as N]	mg/L															
Nitrogen, Total [as N]	mg/L															
Organic Carbon, Total	mg/L															
pH	s.u.															
Specific Conductivity @ 25°C	µS/cm															
Solids, total dissolved	mg/L															
Sulfate, Total [as S]	mg/L															
Sulfate [as SO_4]	mg/L															
Sulfide [as S^{2-}]	mg/L															
Temperature	°C															
Total Well Depth	ft-bmp															
Static Water Level	ft-bmp															
Static Water Level	ft-MSL															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [as Be]	mg/L															
Boron [as B]	mg/L															
Cadmium [as Cd]	mg/L															
Calcium [as Ca]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Cobalt [as Co]	mg/L															
Copper [as Cu]	mg/L															
Lead [as Pb]	mg/L															
Lithium [as Li]	mg/L															
Magnesium [as Mg]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Molybdenum [as Mo]	mg/L															
Radium 226 & 228 comb	pCi/L															
Selenium [as Se]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Vanadium [as V]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:

ft-bmp: feet below measuring point.

ft-MSL: feet above mean sea level

s.u.: standard units

pCi: picocurie

Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.

(1) The listed laboratory analytical method must be used unless written approval by DEQ is received.

(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.

(3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.

(4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.

(5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 10: Ground Water Monitoring Requirements for OMW-8

Sampling Frequency: Quarterly

Required Laboratory Method: 40 CFR 136[1]

Ground Water Reporting Requirements[2]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[4]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[5]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Alkalinity, Total [as $CaCO_3$]	mg/L															
Chloride [as Cl]	mg/L															
Fluoride, Total [as F]	mg/L															
Hardness, Total [as $CaCO_3$]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total Kjeldahl [as N]	mg/L															
Nitrogen, Total [as N]	mg/L															
Organic Carbon, Total	mg/L															
pH	s.u.															
Specific Conductivity @ 25°C	µS/cm															
Solids, total dissolved	mg/L															
Sulfate, Total [as S]	mg/L															
Sulfate [as SO_4]	mg/L															
Sulfide [as S^{2-}]	mg/L															
Temperature	°C															
Total Well Depth	ft-bmp															
Static Water Level	ft-bmp															
Static Water Level	ft-MSL															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [as Be]	mg/L															
Boron [as B]	mg/L															
Cadmium [as Cd]	mg/L															
Calcium [as Ca]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Cobalt [as Co]	mg/L															
Copper [as Cu]	mg/L															
Lead [as Pb]	mg/L															
Lithium [as Li]	mg/L															
Magnesium [as Mg]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Molybdenum [as Mo]	mg/L															
Radium 226 & 228 comb	pCi/L															
Selenium [as Se]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Vanadium [as V]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:

ft-bmp: feet below measuring point.

ft-MSL: feet above mean sea level

s.u.: standard units

pCi: picocurie

Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.

(1) The listed laboratory analytical method must be used unless written approval by DEQ is received.

(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.

(3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.

(4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.

(5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 11: Ground Water Monitoring Requirements for OMW-3

Sampling Frequency: Quarterly

Required Laboratory Method: 40 CFR 136 [1]

Ground Water Reporting Requirements[2]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[4]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[5]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Specific Conductivity @ 25°C	µS/cm															
Temperature	°C															
Total Well Depth	ft-bmp															
Static Water Level	ft-bmp															
Static Water Level	ft-MSL															

Footnotes:
ft-bmp: feet below measuring point.
ft-MSL: feet above mean sea level
s.u.: standard units
pCi: picocurie
Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
(1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
(3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
(4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
(5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

Table 12: Ground Water Monitoring Requirements for OMW-4

Sampling Frequency: Quarterly

Required Laboratory Method: 40 CFR 136 [1]

Ground Water Reporting Requirements[2]

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle

Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle[3]

Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result[4]	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s)[5]	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Specific Conductivity @ 25°C	µS/cm															
Temperature	°C															
Total Well Depth	ft-bmp															
Static Water Level	ft-bmp															
Static Water Level	ft-MSL															

Footnotes:
ft-bmp: feet below measuring point.
ft-MSL: feet above mean sea level
s.u.: standard units
pCi: picocurie
Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
(1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
(2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
(3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
(4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
(5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.

D. Special Conditions – Fugitive Dust Control

The permittee is required to use best management practices for the active control of fugitive dust emissions occurring from the ash monofills and associated operations. Practices must include, but are not limited to, the hydration of the ash within 20 minutes of deposition at the monofill.

E. Special Conditions – Erosion Control

The permittee is required to use best management practices for the active control of on-site erosion and sedimentation.

F. Special Conditions – Rehabilitation

The permittee must create and maintain plans for rehabilitation procedures prior to the creation of an additional monofill, or prior to major modifications of the existing monofill. The design and implementation of rehabilitation procedures must include the placement of a surficial soil cap and the establishment of a native vegetation community. Post-rehabilitation requirements include: ground water and surface water monitoring, erosion control measures, and the successful establishment of a native vegetative cover. Post-rehabilitation monitoring shall be continued until approved and terminated by DEQ.

G. Special Conditions – Ground Water Monitoring, Analysis, and Reporting Plans

The permittee is required to use best management practices in developing (or updating) standard operating procedures for sampling, analyzing, and reporting of ground water. The plan needs to be site-specific and result in monitoring and reporting that is representative of the nature of shallow ground water. The plan will need to provide for consistent identification, development, monitoring, sampling, recording, calculating, and reporting of the monitoring wells. The plan will also need to provide for guidance on determining and documenting dry-well occurrences.

The completion and submittal dates for the plan are listed in Table 13. The permittee will need to maintain the plan, monitoring well development records, and dry well occurrence records on-site at all times (representative sample).

H. Special Conditions – Aquifer Testing

The permittee is required to perform aquifer tests on the shallow water bearing zones immediately downgradient of both ash monofills. The tests need to be site-specific and performed separately on each of these two zones. The type of test needs to be chosen based on the specifics of each zone (e.g. poor hydraulic properties, perched, aquifer confinement, aquifer drains). The permittee shall use their best professional judgement in choosing these proposed tests. DEQ must approve the aquifer test plan before implementation. OMW-1 and OMW-7 monitoring wells may each represent these separate zones. The resulting test information such as transmissivity, hydraulic conductivity, and storativity need to be reported to DEQ. Testing must be done both during the wet season and dry season. A report with test data and a summary on the findings must be reported to DEQ. The completion and reporting due dates for both the proposed plan and final report are provided in Table 13.

I. Compliance Schedule

Table 13: Compliance Schedule

Action	Freq.	Scheduled Completion Date of Action[1]	Scheduled Report Due Date.[2]
Develop and implement a site-specific **Ground Water Monitoring, Analysis, and Reporting Plan**.[3]	Single event	August 31, 2020	September 28, 2020
Submit **Aquifer Test Plan** for approval.[3]	Single event	February 28, 2021	March 28, 2021
Perform and report **Aquifer Testing Results**.	Single event	February 28, 2022	March 28, 2022
Submit **Annual Ground Water Monitoring Reports**.[4]	Annually	Annually on December 31st.	Annually on January 28th. (The initial report on the 2020 calendar year is due on January 28, 2021.)
Submit **Annual Industrial Wastewater Monitoring Reports**.[4]	Annually	Annually on December 31st.	Annually on January 28th. (The initial report on the 2020 calendar year is due on January 28, 2021.)
Submit **Annual Ash Sampling Reports**.[4]	Annually	Annually on December 31st.	Annually on January 28th. (The initial report on the 2020 calendar year is due on January 28, 2021.)

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 permit condition.

(3) The completed plan (action), in place of a written report, must be received by DEQ on or before the scheduled report due date.

(4) Sampling and reporting requirements are listed in Part I.C.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling

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

Monitoring results must be reported in accordance to the reporting requirements of Part I of this permit. Monitoring reports may be submitted electronically (e.g. email) directly to the MGWPCS Program/Project Lead.

All other reports (e.g. special conditions, compliance actions) must be submitted no later than the 28th day of the month following the completion due date, unless otherwise specified. All reports required herein, must be signed and certified in accordance with Part IV.G. "Signatory Requirements" of this permit and submitted to DEQ at the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901

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 parameters or any parameter 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 must 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) 444-5546 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) 444-5546.

4. Reports must 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 must be reported at the time that monitoring reports for Part II.D. of this permit are submitted. The reports must 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 shall 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 must 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 shall 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 must 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 must be available for public inspection at the offices of the Department and the EPA. Permit applications, permits and effluent data must not be considered confidential and must 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, must 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 individual daily discharge measurements during a consecutive 30-day period or calendar month, whichever is applicable (see Daily Discharge). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). Geometric means must be calculated for the *E. coli* bacteria parameter.

2. **"90-day (and Quarterly) Average"** other than for *E. coli* bacteria, means the arithmetic average of all individual daily discharge measurements during a consecutive 90-day period or calendar quarter, whichever is applicable (see Daily Discharge). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). Geometric means must be calculated for the *E. coli* bacteria parameter.

3. **"180-day (and Six-Month or Semi-Annual) Average"** other than for *E. coli* bacteria, means the arithmetic average of all individual daily discharge measurements collected during a consecutive 180-day period or calendar half-year, whichever is applicable (see Daily Discharge). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). Geometric means must be calculated for the *E. coli* bacteria parameter.

4. **"Act"** means the Montana Water Quality Act, Title 75, chapter 5, MCA.

5. **"Annual Average Load"** means the arithmetic mean of all calculated individual daily average loads (lbs/day) recorded during the calendar year, multiplied by 365 (days/year) for a monitored parameter.

6. **"Annual Maximum Limit"** means the maximum allowable discharge of a parameter during a calendar year (or defined 365 day period).

7. **"Best management practices" ("BMPs")** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of state waters. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

8. **"BOD_5"** means the five-day measure of the biochemical oxygen demand parameter.

9. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility.

10. **"Composite Sample"** means a sample that consists of two or more discrete aliquots. Composite samples must be flow proportioned. The composite sample must, 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 must 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.

11. **"CFR"** means Code of Federal Regulations.

12. **"CFU"** means Colony Forming Units.

13. **"Continuous"** means a measurement occurring without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance process changes, or other similar activities.

14. **"Daily Discharge"** means the discharge of a parameter (or pollutant) measured during a calendar day (or any 24-hour period that reasonably represents the calendar day for purposes of sampling). For parameters with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the parameter discharged over the day. For parameters with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic average of all measurements (or samples) collected over the day.

15. **"Daily Maximum"** means the highest individual measured daily value occurring in a defined reporting period (see Daily Discharge).

16. **"Daily Maximum Limit"** means the maximum allowable discharge of a parameter for any calendar day (see Daily Discharge).

17. **"DEQ"** means the Montana Department of Environmental Quality.

18. **"Department"** means the Montana Department of Environmental Quality.

19. **"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.

20. **"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.

21. **"Instantaneous"** means a single reading, observation, or measurement.

22. **"Load Limits"** are mass-based discharge limits expressed in units such as lbs/day.

23. **"Mixing Zone"** means a limited area of a surface water body or ground water bearing zone where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.

24. **"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 design capacity or limitations established under or determined from a permit or approval issued by the Department prior to April 29, 1993.

25. **"RRV"** means Required Reporting Values (DEQ Circular 7).

26. **"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.

27. **"TSS"** means the total suspended solids parameter.

28. **"Total Inorganic Nitrogen (TIN)"** means the arithmetic sum of Nitrate + Nitrite and Ammonia.

29. **"Total Nitrogen (TN)"** means the arithmetic sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.