

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF MINING PROGRAMS

OUTFALL INFORMATION
08/2021

This Section is to be completed when discrete outfalls are proposed. Attach additional pages for more than 4 points.

Identify each point in the tables below. Each discharge point must be shown and labeled as such on a map submitted with this application or as part of the mining permit/authorization. The labeling of discharge points must correspond with the labels used on the exhibit maps submitted in support of the mining permit/authorization. Non-discharging sedimentation traps and groundwater infiltration points are not outfalls and should not be included as outfalls, but should be listed at the end of this section.

Describe the location and source of each point.				
Discharge Point (e.g. SP 01, SP 02 etc.)	Latitude	Longitude	Receiving Stream	Source of Discharge (e.g., sedimentation pond, groundwater sump, etc.)
001	40° 14' 34.8"	78° 48' 31.3"	Tributary 45258 to Paint Creek	Sediment Pond 001
002	40° 14' 15.5"	78° 48' 05.7"	Paint Creek	Sediment Pond 002
003	40° 14' 06.0"	78° 47' 18.6"	Paint Creek	Sediment Pond 003
004	40° 14' 11.3"	78° 46' 59.0"	Paint Creek	Sediment Pond 004
005	40° 14' 22.4"	78° 47' 47.8"	Unnamed Tributary to Paint Creek	Sediment Pond 005
006	40° 14' 33.7"	78° 48' 26.8"	Tributary 45258 to Paint Creek	Treatment Pond 006
007	40° 14' 15.2"	78° 47' 51.2"	Unnamed Tributary to Paint Creek	Treatment Pond 007
008	40° 14' 05.2"	78° 47' 23.1"	Paint Creek	Treatment Pond 008
For the same points as above, describe the flow and treatment for each point.				
Discharge Point (e.g. SP 01, SP 02 etc.)	Flow			Treatment
	Average rate (mgd)	Design rate (mgd)	Frequency (months/yr)	
001	0.7	3.0	Intermittent	1-U Sedimentation (Settling)
002	0.8	3.1	Intermittent	1-U Sedimentation (Settling)
003	0.8	3.0	Intermittent	1-U Sedimentation (Settling)
004	0.7	3.0	Intermittent	1-U Sedimentation (Settling)
005	0.7	3.0	Intermittent	1-U Sedimentation (Settling)
006	0.3	1.3	Intermittent	2-K Neutralization; 1-U Sedimentation (Settling)
007	0.3	1.3	Intermittent	2-K Neutralization; 1-U Sedimentation (Settling)
008	0.3	1.3	Intermittent	2-K Neutralization; 1-U Sedimentation (Settling)

Design rate is the discharge flow at the Q 7-10 stream flow for post-mining discharges, the maximum hydraulic capacity for other treatment facilities or the routed storm flow for sedimentation ponds.			
Latitude/Longitude Collection Method: <input type="checkbox"/> EMAP <input checked="" type="checkbox"/> GPS <input type="checkbox"/> Printed Map <input type="checkbox"/> Other _____			
Check the horizontal reference datum (or projection datum) employed in the collection method.			
<input type="checkbox"/> NAD27 (topo maps)		<input checked="" type="checkbox"/> NAD83 (Emap)	<input type="checkbox"/> WGS84 (GEO84) (most GPS units)

For non-discharging sedimentation traps and groundwater infiltration points, provide the description and location:			
Discharge Point:	Latitude:	Longitude:	Source of Discharge (e.g., sedimentation pond, groundwater sump, etc.):

Complete an **Effluent Characterization** for each Discharge Point.

Evaluation of Thermal Impacts

Describe how thermal impacts were evaluated and, if necessary, how they will be mitigated, in accordance with 25 Pa. Code Chapter 93.

All drainage to ponds will be storm induced; therefore this water will have similar thermal qualities as surface runoff feeding the receiving streams and will not impact the thermal properties of the streams. During summer months, the ponds will not maintain a permanent pool above the dewatering structures, thus the water will not be held for extended periods of time permitting the warming of the pool.

Solid or Liquid Wastes

Will there be sludge or sediment produced from the treatment described above? Yes No

Will there be liquid produced from the treatment described above (not discharged via the outfall)? Yes No

If yes to either, describe the material and its ultimate disposal.

Coal related solid wastes will be taken to an approved coal refuse disposal area. Sediment only material will be removed from ponds for a surface application on site.

Effluent Characterization

Discharge Point No. **001**

Complete the following sections for each discharge outfall listed in Outfall Information

Common parameters/pollutants

Complete the table for each constituent. Indicate 'E' if estimate, 'D' if based on actual data. Please include the units of measurement. If you are providing data from one discharge for two or more substantially identical effluents, indicate which outfalls the data represents.

Constituent	Daily Max	Daily Average	Source of Information
pH	9.0 (E)	7.5 (E)	Representative Sample – Hoover Mine
Total Suspended Solids (TSS)	14 mg/l (E)	12 mg/l (E)	Representative Sample – Hoover Mine
Chemical Oxygen Demand (COD) ¹			
Biochemical Oxygen Demand (BOD) ¹			
Ammonia (NH ₃) ¹			
Total Organic Carbon (TOC) ¹			
Flow	*	*	See chart above
Temperature (high)	25° C (E)	20° C (E)	Estimate
Temperature (low)	12° C (E)	8° C (E)	

¹ Waiver option [40 CFR 122.21(k)(5)(i)]: A waiver is requested for the following constituents that are not anticipated to be present in the discharge:

COD BOD NH₃ TOC

Provide a justification for this waiver request.

No known sources of constituents for which a waiver is requested would be in the vicinity of site pond.

Dioxins

Do you have reason to believe that at any time dioxins were made, used, stored or buried on or directly upgradient from the site designated for mining and/or support area? [TCDD, 2,4,5-TP, Erbon, TCH or HCP under 40 CFR 122.21(g)(7)(viii)] Yes No

If yes, provide information and data characterizing the potential discharge.

Organic Toxic Pollutants (EPA Table II)

Provide waiver justification or data regarding organic toxic pollutants for the mine site.

Waiver: This section is not applicable because this operation fulfills one of the following criteria:

- Coal: This operation produces less than 100,000 tons per year.
- Noncoal: This operation has gross sales of less than \$100,000 per year (1980 dollars).

Data: If a waiver is not applicable, refer to Appendix B: Table II - Organic Toxic Pollutants. List any constituents from that table that are expected to be present in the discharge.

For all constituents listed above, provide a table of the estimated daily maximum concentration, the estimated daily average concentration and the source of this information.

Other Toxic Pollutants (EPA Table III)

Provide an estimate of the concentration that could reasonably expected to be present in the discharges(s)[40 CFR 122.21 (k)(5)(iii)(A)]

Stream Hardness	100mg/l Default
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Constituent	Concentration (units)	Source of information
Antimony, Total	0.075 µg/l	Representative sample from the Hoover Mine Sediment Pond
Arsenic, Total	< 5.0 µg/l	
Beryllium, Total	< 1.0 µg/l	
Cadmium, Total	< 0.1 µg/l	
Chromium, Total	< 5.0 µg/l	
Copper, Total	< 4.0 µg/l	
Lead, Total	< 1.0 µg/l	
Mercury, Total	0.0012 µg/l	
Nickel, Total	< 2.5 µg/l	
Selenium, Total	< 2.0 µg/l	
Silver, Total	< 1.0 µg/l	
Thallium, Total	0.036 µg/l	
Zinc, Total	< 10 µg/l	
Cyanide, Total	<2.7 µg/l	
Phenols, Total	< 5 µg/l	

Conventional and Nonconventional Pollutants (EPA Table IV)

For each of the following constituents, check the boxes for those that you expect to be present in the discharge.

<input type="checkbox"/> Bromide	<input type="checkbox"/> Phosphorus, Total	<input type="checkbox"/> Boron, Total
<input type="checkbox"/> Chlorine, Total Residual	<input type="checkbox"/> Radioactivity	<input type="checkbox"/> Cobalt, Total
<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Sulfate	<input checked="" type="checkbox"/> Iron, Total
<input type="checkbox"/> Fecal Coliform	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Magnesium, Total
<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfite	<input type="checkbox"/> Molybdenum, Total
<input type="checkbox"/> Nitrate-Nitrite	<input type="checkbox"/> Surfactants	<input checked="" type="checkbox"/> Manganese, Total
<input type="checkbox"/> Nitrogen, Total Organic	<input checked="" type="checkbox"/> Aluminum, Total	<input type="checkbox"/> Tin, Total
<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Barium, Total	<input type="checkbox"/> Titanium, Total

For each constituent checked above (those that you expect to be present) provide the estimated daily maximum concentration, daily average concentration and the source of the information.

Constituent	Daily Max	Daily Avg	Source of Information
Aluminum	0.14 mg/l	0.13 mg/l	Representative Sample from Hoover Mine
Iron	0.22 mg/l	0.22 mg/l	Sediment Pond
Manganese	1.99 mg/l	1.00 mg/l	
Sulfate	16 mg/l	15 mg/l	

Toxic Pollutants and Hazardous Substances (EPA Table V)

Refer to Appendix B: Toxic Pollutants and Hazardous Substances. List any constituents from that table that are expected to be present in the discharge. Provide data for each pollutant expected in the discharge or justification of why any are believed to be not present and the source of this information.

There are no known sources present, in the vicinity, of any of the constituents listed in Table V. There are no indications or reason to expect the presence of any of the listed toxic pollutants and hazardous substances.

Effluent Characterization

Discharge Point No. **002**

Complete the following sections for each discharge outfall listed in Outfall Information

Common parameters/pollutants

Complete the table for each constituent. Indicate 'E' if estimate, 'D' if based on actual data. Please include the units of measurement. If you are providing data from one discharge for two or more substantially identical effluents, indicate which outfalls the data represents.

Constituent	Daily Max	Daily Average	Source of Information
pH	9.0 (E)	7.5 (E)	Representative Sample – Hoover Mine
Total Suspended Solids (TSS)	14 mg/l (E)	12 mg/l (E)	Representative Sample – Hoover Mine
Chemical Oxygen Demand (COD) ¹			
Biochemical Oxygen Demand (BOD) ¹			
Ammonia (NH ₃) ¹			
Total Organic Carbon (TOC) ¹			
Flow	*	*	See chart above
Temperature (high)	25° C (E)	20° C (E)	Estimate
Temperature (low)	12° C (E)	8° C (E)	

¹ Waiver option [40 CFR 122.21(k)(5)(i)]: A waiver is requested for the following constituents that are not anticipated to be present in the discharge:

- COD
 BOD
 NH₃
 TOC

Provide a justification for this waiver request.

No known sources of constituents for which a waiver is requested would be in the vicinity of site pond.

Dioxins

Do you have reason to believe that at any time dioxins were made, used, stored or buried on or directly upgradient from the site designated for mining and/or support area? [TCDD, 2,4,5-TP, Erbon, TCH or HCP under 40 CFR 122.21(g)(7)(viii)] Yes No

If yes, provide information and data characterizing the potential discharge.

Organic Toxic Pollutants (EPA Table II)

Provide waiver justification or data regarding organic toxic pollutants for the mine site.

Waiver: This section is not applicable because this operation fulfills one of the following criteria:

- Coal: This operation produces less than 100,000 tons per year.
- Noncoal: This operation has gross sales of less than \$100,000 per year (1980 dollars).

Data: If a waiver is not applicable, refer to Appendix B: Table II - Organic Toxic Pollutants. List any constituents from that table that are expected to be present in the discharge.

For all constituents listed above, provide a table of the estimated daily maximum concentration, the estimated daily average concentration and the source of this information.

Other Toxic Pollutants (EPA Table III)

Provide an estimate of the concentration that could reasonably expected to be present in the discharges(s)[40 CFR 122.21 (k)(5)(iii)(A)]

Stream Hardness	100mg/l Default
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Constituent	Concentration (units)	Source of information
Antimony, Total	0.075 µg/l	Representative sample from the Hoover Mine Sediment Pond
Arsenic, Total	< 5.0 µg/l	
Beryllium, Total	< 1.0 µg/l	
Cadmium, Total	< 0.1 µg/l	
Chromium, Total	< 5.0 µg/l	
Copper, Total	< 4.0 µg/l	
Lead, Total	< 1.0 µg/l	
Mercury, Total	0.0012 µg/l	
Nickel, Total	< 2.5 µg/l	
Selenium, Total	< 2.0 µg/l	
Silver, Total	< 1.0 µg/l	
Thallium, Total	0.036 µg/l	
Zinc, Total	< 10 µg/l	
Cyanide, Total	<2.7 µg/l	
Phenols, Total	< 5 µg/l	

Conventional and Nonconventional Pollutants (EPA Table IV)

For each of the following constituents, check the boxes for those that you expect to be present in the discharge.

<input type="checkbox"/> Bromide	<input type="checkbox"/> Phosphorus, Total	<input type="checkbox"/> Boron, Total
<input type="checkbox"/> Chlorine, Total Residual	<input type="checkbox"/> Radioactivity	<input type="checkbox"/> Cobalt, Total
<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Sulfate	<input checked="" type="checkbox"/> Iron, Total
<input type="checkbox"/> Fecal Coliform	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Magnesium, Total
<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfite	<input type="checkbox"/> Molybdenum, Total
<input type="checkbox"/> Nitrate-Nitrite	<input type="checkbox"/> Surfactants	<input checked="" type="checkbox"/> Manganese, Total
<input type="checkbox"/> Nitrogen, Total Organic	<input checked="" type="checkbox"/> Aluminum, Total	<input type="checkbox"/> Tin, Total
<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Barium, Total	<input type="checkbox"/> Titanium, Total

For each constituent checked above (those that you expect to be present) provide the estimated daily maximum concentration, daily average concentration and the source of the information.

Constituent	Daily Max	Daily Avg	Source of Information
Aluminum	0.14 mg/l	0.13 mg/l	Representative Sample from Hoover Mine
Iron	0.22 mg/l	0.22 mg/l	Sediment Pond
Manganese	1.99 mg/l	1.00 mg/l	
Sulfate	16 mg/l	15 mg/l	

Toxic Pollutants and Hazardous Substances (EPA Table V)

Refer to Appendix B: Toxic Pollutants and Hazardous Substances. List any constituents from that table that are expected to be present in the discharge. Provide data for each pollutant expected in the discharge or justification of why any are believed to be not present and the source of this information.

There are no known sources present, in the vicinity, of any of the constituents listed in Table V. There are no indications or reason to expect the presence of any of the listed toxic pollutants and hazardous substances.

Effluent Characterization

Discharge Point No. **003**

Complete the following sections for each discharge outfall listed in Outfall Information

Common parameters/pollutants

Complete the table for each constituent. Indicate 'E' if estimate, 'D' if based on actual data. Please include the units of measurement. If you are providing data from one discharge for two or more substantially identical effluents, indicate which outfalls the data represents.			
Constituent	Daily Max	Daily Average	Source of Information
pH	9.0 (E)	7.5 (E)	Representative Sample – Hoover Mine
Total Suspended Solids (TSS)	14 mg/l (E)	12 mg/l (E)	Representative Sample – Hoover Mine
Chemical Oxygen Demand (COD) ¹			
Biochemical Oxygen Demand (BOD) ¹			
Ammonia (NH ₃) ¹			
Total Organic Carbon (TOC) ¹			
Flow	*	*	See chart above
Temperature (high)	25° C (E)	20° C (E)	Estimate
Temperature (low)	12° C (E)	8° C (E)	

¹ Waiver option [40 CFR 122.21(k)(5)(i)]: A waiver is requested for the following constituents that are not anticipated to be present in the discharge:

COD BOD NH₃ TOC

Provide a justification for this waiver request.

No known sources of constituents for which a waiver is requested would be in the vicinity of site pond.

Dioxins

Do you have reason to believe that at any time dioxins were made, used, stored or buried on or directly upgradient from the site designated for mining and/or support area? [TCDD, 2,4,5-TP, Erbon, TCH or HCP under 40 CFR 122.21(g)(7)(viii)] Yes No

If yes, provide information and data characterizing the potential discharge.

Organic Toxic Pollutants (EPA Table II)

Provide waiver justification or data regarding organic toxic pollutants for the mine site.

Waiver: This section is not applicable because this operation fulfills one of the following criteria:

- Coal: This operation produces less than 100,000 tons per year.
- Noncoal: This operation has gross sales of less than \$100,000 per year (1980 dollars).

Data: If a waiver is not applicable, refer to Appendix B: Table II - Organic Toxic Pollutants. List any constituents from that table that are expected to be present in the discharge.

For all constituents listed above, provide a table of the estimated daily maximum concentration, the estimated daily average concentration and the source of this information.

Other Toxic Pollutants (EPA Table III)

Provide an estimate of the concentration that could reasonably expected to be present in the discharges(s)[40 CFR 122.21 (k)(5)(iii)(A)]

Stream Hardness	100mg/l Default
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Constituent	Concentration (units)	Source of information
Antimony, Total	0.075 µg/l	Representative sample from the Hoover Mine Sediment Pond
Arsenic, Total	< 5.0 µg/l	
Beryllium, Total	< 1.0 µg/l	
Cadmium, Total	< 0.1 µg/l	
Chromium, Total	< 5.0 µg/l	
Copper, Total	< 4.0 µg/l	
Lead, Total	< 1.0 µg/l	
Mercury, Total	0.0012 µg/l	
Nickel, Total	< 2.5 µg/l	
Selenium, Total	< 2.0 µg/l	
Silver, Total	< 1.0 µg/l	
Thallium, Total	0.036 µg/l	
Zinc, Total	< 10 µg/l	
Cyanide, Total	<2.7 µg/l	
Phenols, Total	< 5 µg/l	

Conventional and Nonconventional Pollutants (EPA Table IV)

For each of the following constituents, check the boxes for those that you expect to be present in the discharge.

<input type="checkbox"/> Bromide	<input type="checkbox"/> Phosphorus, Total	<input type="checkbox"/> Boron, Total
<input type="checkbox"/> Chlorine, Total Residual	<input type="checkbox"/> Radioactivity	<input type="checkbox"/> Cobalt, Total
<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Sulfate	<input checked="" type="checkbox"/> Iron, Total
<input type="checkbox"/> Fecal Coliform	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Magnesium, Total
<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfite	<input type="checkbox"/> Molybdenum, Total
<input type="checkbox"/> Nitrate-Nitrite	<input type="checkbox"/> Surfactants	<input checked="" type="checkbox"/> Manganese, Total
<input type="checkbox"/> Nitrogen, Total Organic	<input checked="" type="checkbox"/> Aluminum, Total	<input type="checkbox"/> Tin, Total
<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Barium, Total	<input type="checkbox"/> Titanium, Total

For each constituent checked above (those that you expect to be present) provide the estimated daily maximum concentration, daily average concentration and the source of the information.

Constituent	Daily Max	Daily Avg	Source of Information
Aluminum	0.14 mg/l	0.13 mg/l	Representative Sample from Hoover Mine
Iron	0.22 mg/l	0.22 mg/l	Sediment Pond
Manganese	1.99 mg/l	1.00 mg/l	
Sulfate	16 mg/l	15 mg/l	

Toxic Pollutants and Hazardous Substances (EPA Table V)

Refer to Appendix B: Toxic Pollutants and Hazardous Substances. List any constituents from that table that are expected to be present in the discharge. Provide data for each pollutant expected in the discharge or justification of why any are believed to be not present and the source of this information.

There are no known sources present, in the vicinity, of any of the constituents listed in Table V. There are no indications or reason to expect the presence of any of the listed toxic pollutants and hazardous substances.

Effluent Characterization

Discharge Point No. **004**

Complete the following sections for each discharge outfall listed in Outfall Information

Common parameters/pollutants

Complete the table for each constituent. Indicate 'E' if estimate, 'D' if based on actual data. Please include the units of measurement. If you are providing data from one discharge for two or more substantially identical effluents, indicate which outfalls the data represents.

Constituent	Daily Max	Daily Average	Source of Information
pH	9.0 (E)	7.5 (E)	Representative Sample – Hoover Mine
Total Suspended Solids (TSS)	14 mg/l (E)	12 mg/l (E)	Representative Sample – Hoover Mine
Chemical Oxygen Demand (COD) ¹			
Biochemical Oxygen Demand (BOD) ¹			
Ammonia (NH ₃) ¹			
Total Organic Carbon (TOC) ¹			
Flow	*	*	See chart above
Temperature (high)	25° C (E)	20° C (E)	Estimate
Temperature (low)	12° C (E)	8° C (E)	

¹ Waiver option [40 CFR 122.21(k)(5)(i)]: A waiver is requested for the following constituents that are not anticipated to be present in the discharge:

- COD
 BOD
 NH₃
 TOC

Provide a justification for this waiver request.

No known sources of constituents for which a waiver is requested would be in the vicinity of site pond.

Dioxins

Do you have reason to believe that at any time dioxins were made, used, stored or buried on or directly upgradient from the site designated for mining and/or support area? [TCDD, 2,4,5-TP, Erbon, TCH or HCP under 40 CFR 122.21(g)(7)(viii)] Yes No

If yes, provide information and data characterizing the potential discharge.

Organic Toxic Pollutants (EPA Table II)

Provide waiver justification or data regarding organic toxic pollutants for the mine site.

Waiver: This section is not applicable because this operation fulfills one of the following criteria:

- Coal: This operation produces less than 100,000 tons per year.
- Noncoal: This operation has gross sales of less than \$100,000 per year (1980 dollars).

Data: If a waiver is not applicable, refer to Appendix B: Table II - Organic Toxic Pollutants. List any constituents from that table that are expected to be present in the discharge.

For all constituents listed above, provide a table of the estimated daily maximum concentration, the estimated daily average concentration and the source of this information.

Other Toxic Pollutants (EPA Table III)

Provide an estimate of the concentration that could reasonably expected to be present in the discharges(s)[40 CFR 122.21 (k)(5)(iii)(A)]

Stream Hardness	100mg/l Default
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Constituent	Concentration (units)	Source of information
Antimony, Total	0.075 µg/l	Representative sample from the Hoover Mine Sediment Pond
Arsenic, Total	< 5.0 µg/l	
Beryllium, Total	< 1.0 µg/l	
Cadmium, Total	< 0.1 µg/l	
Chromium, Total	< 5.0 µg/l	
Copper, Total	< 4.0 µg/l	
Lead, Total	< 1.0 µg/l	
Mercury, Total	0.0012 µg/l	
Nickel, Total	< 2.5 µg/l	
Selenium, Total	< 2.0 µg/l	
Silver, Total	< 1.0 µg/l	
Thallium, Total	0.036 µg/l	
Zinc, Total	< 10 µg/l	
Cyanide, Total	<2.7 µg/l	
Phenols, Total	< 5 µg/l	

Conventional and Nonconventional Pollutants (EPA Table IV)

For each of the following constituents, check the boxes for those that you expect to be present in the discharge.

<input type="checkbox"/> Bromide	<input type="checkbox"/> Phosphorus, Total	<input type="checkbox"/> Boron, Total
<input type="checkbox"/> Chlorine, Total Residual	<input type="checkbox"/> Radioactivity	<input type="checkbox"/> Cobalt, Total
<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Sulfate	<input checked="" type="checkbox"/> Iron, Total
<input type="checkbox"/> Fecal Coliform	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Magnesium, Total
<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfite	<input type="checkbox"/> Molybdenum, Total
<input type="checkbox"/> Nitrate-Nitrite	<input type="checkbox"/> Surfactants	<input checked="" type="checkbox"/> Manganese, Total
<input type="checkbox"/> Nitrogen, Total Organic	<input checked="" type="checkbox"/> Aluminum, Total	<input type="checkbox"/> Tin, Total
<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Barium, Total	<input type="checkbox"/> Titanium, Total

For each constituent checked above (those that you expect to be present) provide the estimated daily maximum concentration, daily average concentration and the source of the information.

Constituent	Daily Max	Daily Avg	Source of Information
Aluminum	0.14 mg/l	0.13 mg/l	Representative Sample from Hoover Mine
Iron	0.22 mg/l	0.22 mg/l	Sediment Pond
Manganese	1.99 mg/l	1.00 mg/l	
Sulfate	16 mg/l	15 mg/l	

Toxic Pollutants and Hazardous Substances (EPA Table V)

Refer to Appendix B: Toxic Pollutants and Hazardous Substances. List any constituents from that table that are expected to be present in the discharge. Provide data for each pollutant expected in the discharge or justification of why any are believed to be not present and the source of this information.

There are no known sources present, in the vicinity, of any of the constituents listed in Table V. There are no indications or reason to expect the presence of any of the listed toxic pollutants and hazardous substances.

Effluent Characterization

Discharge Point No. **005**

Complete the following sections for each discharge outfall listed in Outfall Information

Common parameters/pollutants

Complete the table for each constituent. Indicate 'E' if estimate, 'D' if based on actual data. Please include the units of measurement. If you are providing data from one discharge for two or more substantially identical effluents, indicate which outfalls the data represents.			
Constituent	Daily Max	Daily Average	Source of Information
pH	9.0 (E)	7.5 (E)	Representative Sample – Hoover Mine
Total Suspended Solids (TSS)	14 mg/l (E)	12 mg/l (E)	Representative Sample – Hoover Mine
Chemical Oxygen Demand (COD) ¹			
Biochemical Oxygen Demand (BOD) ¹			
Ammonia (NH ₃) ¹			
Total Organic Carbon (TOC) ¹			
Flow	*	*	See chart above
Temperature (high)	25° C (E)	20° C (E)	Estimate
Temperature (low)	12° C (E)	8° C (E)	

¹ Waiver option [40 CFR 122.21(k)(5)(i)]: A waiver is requested for the following constituents that are not anticipated to be present in the discharge:

COD BOD NH₃ TOC

Provide a justification for this waiver request.

No known sources of constituents for which a waiver is requested would be in the vicinity of site pond.

Dioxins

Do you have reason to believe that at any time dioxins were made, used, stored or buried on or directly upgradient from the site designated for mining and/or support area? [TCDD, 2,4,5-TP, Erbon, TCH or HCP under 40 CFR 122.21(g)(7)(viii)] Yes No

If yes, provide information and data characterizing the potential discharge.

Organic Toxic Pollutants (EPA Table II)

Provide waiver justification or data regarding organic toxic pollutants for the mine site.

Waiver: This section is not applicable because this operation fulfills one of the following criteria:

- Coal: This operation produces less than 100,000 tons per year.
- Noncoal: This operation has gross sales of less than \$100,000 per year (1980 dollars).

Data: If a waiver is not applicable, refer to Appendix B: Table II - Organic Toxic Pollutants. List any constituents from that table that are expected to be present in the discharge.

For all constituents listed above, provide a table of the estimated daily maximum concentration, the estimated daily average concentration and the source of this information.

Other Toxic Pollutants (EPA Table III)

Provide an estimate of the concentration that could reasonably expected to be present in the discharges(s)[40 CFR 122.21 (k)(5)(iii)(A)]

Stream Hardness	100mg/l Default
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Constituent	Concentration (units)	Source of information
Antimony, Total	0.075 µg/l	Representative sample from the Hoover Mine Sediment Pond
Arsenic, Total	< 5.0 µg/l	
Beryllium, Total	< 1.0 µg/l	
Cadmium, Total	< 0.1 µg/l	
Chromium, Total	< 5.0 µg/l	
Copper, Total	< 4.0 µg/l	
Lead, Total	< 1.0 µg/l	
Mercury, Total	0.0012 µg/l	
Nickel, Total	< 2.5 µg/l	
Selenium, Total	< 2.0 µg/l	
Silver, Total	< 1.0 µg/l	
Thallium, Total	0.036 µg/l	
Zinc, Total	< 10 µg/l	
Cyanide, Total	<2.7 µg/l	
Phenols, Total	< 5 µg/l	

Conventional and Nonconventional Pollutants (EPA Table IV)

For each of the following constituents, check the boxes for those that you expect to be present in the discharge.

<input type="checkbox"/> Bromide	<input type="checkbox"/> Phosphorus, Total	<input type="checkbox"/> Boron, Total
<input type="checkbox"/> Chlorine, Total Residual	<input type="checkbox"/> Radioactivity	<input type="checkbox"/> Cobalt, Total
<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Sulfate	<input checked="" type="checkbox"/> Iron, Total
<input type="checkbox"/> Fecal Coliform	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Magnesium, Total
<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfite	<input type="checkbox"/> Molybdenum, Total
<input type="checkbox"/> Nitrate-Nitrite	<input type="checkbox"/> Surfactants	<input checked="" type="checkbox"/> Manganese, Total
<input type="checkbox"/> Nitrogen, Total Organic	<input checked="" type="checkbox"/> Aluminum, Total	<input type="checkbox"/> Tin, Total
<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Barium, Total	<input type="checkbox"/> Titanium, Total

For each constituent checked above (those that you expect to be present) provide the estimated daily maximum concentration, daily average concentration and the source of the information.

Constituent	Daily Max	Daily Avg	Source of Information
Aluminum	0.14 mg/l	0.13 mg/l	Representative Sample from Hoover Mine
Iron	0.22 mg/l	0.22 mg/l	Sediment Pond
Manganese	1.99 mg/l	1.00 mg/l	
Sulfate	16 mg/l	15 mg/l	

Toxic Pollutants and Hazardous Substances (EPA Table V)

Refer to Appendix B: Toxic Pollutants and Hazardous Substances. List any constituents from that table that are expected to be present in the discharge. Provide data for each pollutant expected in the discharge or justification of why any are believed to be not present and the source of this information.

There are no known sources present, in the vicinity, of any of the constituents listed in Table V. There are no indications or reason to expect the presence of any of the listed toxic pollutants and hazardous substances.

Effluent Characterization

Discharge Point No. **006**

Complete the following sections for each discharge outfall listed in Outfall Information

Common parameters/pollutants

Complete the table for each constituent. Indicate 'E' if estimate, 'D' if based on actual data. Please include the units of measurement. If you are providing data from one discharge for two or more substantially identical effluents, indicate which outfalls the data represents.

Constituent	Daily Max	Daily Average	Source of Information
pH	9.0 (E)	8.2 (E)	Representative Sample – Hoover Mine
Total Suspended Solids (TSS)	20 mg/l (E)	10 mg/l (E)	Representative Sample – Hoover Mine
Chemical Oxygen Demand (COD) ¹			
Biochemical Oxygen Demand (BOD) ¹			
Ammonia (NH ₃) ¹			
Total Organic Carbon (TOC) ¹			
Flow	*	*	See chart above
Temperature (high)	25° C (E)	20° C (E)	Estimate
Temperature (low)	12° C (E)	8° C (E)	

¹ Waiver option [40 CFR 122.21(k)(5)(i)]: A waiver is requested for the following constituents that are not anticipated to be present in the discharge:

COD BOD NH₃ TOC

Provide a justification for this waiver request.

No known sources of constituents for which a waiver is requested would be in the vicinity of site pond.

Dioxins

Do you have reason to believe that at any time dioxins were made, used, stored or buried on or directly upgradient from the site designated for mining and/or support area? [TCDD, 2,4,5-TP, Erbon, TCH or HCP under 40 CFR 122.21(g)(7)(viii)] Yes No

If yes, provide information and data characterizing the potential discharge.

Organic Toxic Pollutants (EPA Table II)

Provide waiver justification or data regarding organic toxic pollutants for the mine site.

Waiver: This section is not applicable because this operation fulfills one of the following criteria:

- Coal: This operation produces less than 100,000 tons per year.
- Noncoal: This operation has gross sales of less than \$100,000 per year (1980 dollars).

Data: If a waiver is not applicable, refer to Appendix B: Table II - Organic Toxic Pollutants. List any constituents from that table that are expected to be present in the discharge.

For all constituents listed above, provide a table of the estimated daily maximum concentration, the estimated daily average concentration and the source of this information.

Other Toxic Pollutants (EPA Table III)

Provide an estimate of the concentration that could reasonably expected to be present in the discharges(s)[40 CFR 122.21 (k)(5)(iii)(A)]

Stream Hardness	
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Constituent	Concentration (units)	Source of information
Antimony, Total	0.51 µg/l	Representative sample from the Hoover Mine Treatment Pond
Arsenic, Total	< 5.0 µg/l	
Beryllium, Total	< 1.0 µg/l	
Cadmium, Total	< 0.1 µg/l	
Chromium, Total	< 5.0 µg/l	
Copper, Total	< 4.0 µg/l	
Lead, Total	< 1.0 µg/l	
Mercury, Total	0.00098 µg/l	
Nickel, Total	8.8 µg/l	
Selenium, Total	< 2.0 µg/l	
Silver, Total	< 1.0 µg/l	
Thallium, Total	0.056 µg/l	
Zinc, Total	< 10 µg/l	
Cyanide, Total	<2.7 µg/l	
Phenols, Total	< 5 µg/l	

Conventional and Nonconventional Pollutants (EPA Table IV)

For each of the following constituents, check the boxes for those that you expect to be present in the discharge.

<input type="checkbox"/> Bromide	<input type="checkbox"/> Phosphorus, Total	<input type="checkbox"/> Boron, Total
<input type="checkbox"/> Chlorine, Total Residual	<input type="checkbox"/> Radioactivity	<input type="checkbox"/> Cobalt, Total
<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Sulfate	<input checked="" type="checkbox"/> Iron, Total
<input type="checkbox"/> Fecal Coliform	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Magnesium, Total
<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfite	<input type="checkbox"/> Molybdenum, Total
<input type="checkbox"/> Nitrate-Nitrite	<input type="checkbox"/> Surfactants	<input checked="" type="checkbox"/> Manganese, Total
<input type="checkbox"/> Nitrogen, Total Organic	<input checked="" type="checkbox"/> Aluminum, Total	<input type="checkbox"/> Tin, Total
<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Barium, Total	<input type="checkbox"/> Titanium, Total

For each constituent checked above (those that you expect to be present) provide the estimated daily maximum concentration, daily average concentration and the source of the information.

Constituent	Daily Max	Daily Avg	Source of Information
Aluminum	0.57 mg/l	0.22 mg/l	Representative Sample from Hoover Mine
Iron	1.96 mg/l	0.43 mg/l	Treatment Pond
Manganese	1.47 mg/l	0.47 mg/l	
Sulfate	63 mg/l	52 mg/l	

Toxic Pollutants and Hazardous Substances (EPA Table V)

Refer to Appendix B: Toxic Pollutants and Hazardous Substances. List any constituents from that table that are expected to be present in the discharge. Provide data for each pollutant expected in the discharge or justification of why any are believed to be not present and the source of this information.

There are no known sources present, in the vicinity, of any of the constituents listed in Table V. There are no indications or reason to expect the presence of any of the listed toxic pollutants and hazardous substances.

Effluent Characterization

Discharge Point No. **007**

Complete the following sections for each discharge outfall listed in Outfall Information

Common parameters/pollutants

Complete the table for each constituent. Indicate 'E' if estimate, 'D' if based on actual data. Please include the units of measurement. If you are providing data from one discharge for two or more substantially identical effluents, indicate which outfalls the data represents.			
Constituent	Daily Max	Daily Average	Source of Information
pH	9.0 (E)	8.2 (E)	Representative Sample – Hoover Mine
Total Suspended Solids (TSS)	20 mg/l (E)	10 mg/l (E)	Representative Sample – Hoover Mine
Chemical Oxygen Demand (COD) ¹			
Biochemical Oxygen Demand (BOD) ¹			
Ammonia (NH ₃) ¹			
Total Organic Carbon (TOC) ¹			
Flow	*	*	See chart above
Temperature (high)	25° C (E)	20° C (E)	Estimate
Temperature (low)	12° C (E)	8° C (E)	

¹ Waiver option [40 CFR 122.21(k)(5)(i)]: A waiver is requested for the following constituents that are not anticipated to be present in the discharge:

COD BOD NH₃ TOC

Provide a justification for this waiver request.

No known sources of constituents for which a waiver is requested would be in the vicinity of site pond.

Dioxins

Do you have reason to believe that at any time dioxins were made, used, stored or buried on or directly upgradient from the site designated for mining and/or support area? [TCDD, 2,4,5-TP, Erbon, TCH or HCP under 40 CFR 122.21(g)(7)(viii)] Yes No

If yes, provide information and data characterizing the potential discharge.

Organic Toxic Pollutants (EPA Table II)

Provide waiver justification or data regarding organic toxic pollutants for the mine site.

Waiver: This section is not applicable because this operation fulfills one of the following criteria:

- Coal: This operation produces less than 100,000 tons per year.
- Noncoal: This operation has gross sales of less than \$100,000 per year (1980 dollars).

Data: If a waiver is not applicable, refer to Appendix B: Table II - Organic Toxic Pollutants. List any constituents from that table that are expected to be present in the discharge.

For all constituents listed above, provide a table of the estimated daily maximum concentration, the estimated daily average concentration and the source of this information.

Other Toxic Pollutants (EPA Table III)

Provide an estimate of the concentration that could reasonably expected to be present in the discharges(s)[40 CFR 122.21 (k)(5)(iii)(A)]

Stream Hardness	
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Constituent	Concentration (units)	Source of information
Antimony, Total	0.51 µg/l	Representative sample from the Hoover Mine Treatment Pond
Arsenic, Total	< 5.0 µg/l	
Beryllium, Total	< 1.0 µg/l	
Cadmium, Total	< 0.1 µg/l	
Chromium, Total	< 5.0 µg/l	
Copper, Total	< 4.0 µg/l	
Lead, Total	< 1.0 µg/l	
Mercury, Total	0.00098 µg/l	
Nickel, Total	8.8 µg/l	
Selenium, Total	< 2.0 µg/l	
Silver, Total	< 1.0 µg/l	
Thallium, Total	0.056 µg/l	
Zinc, Total	< 10 µg/l	
Cyanide, Total	<2.7 µg/l	
Phenols, Total	< 5 µg/l	

Conventional and Nonconventional Pollutants (EPA Table IV)

For each of the following constituents, check the boxes for those that you expect to be present in the discharge.

<input type="checkbox"/> Bromide	<input type="checkbox"/> Phosphorus, Total	<input type="checkbox"/> Boron, Total
<input type="checkbox"/> Chlorine, Total Residual	<input type="checkbox"/> Radioactivity	<input type="checkbox"/> Cobalt, Total
<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Sulfate	<input checked="" type="checkbox"/> Iron, Total
<input type="checkbox"/> Fecal Coliform	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Magnesium, Total
<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfite	<input type="checkbox"/> Molybdenum, Total
<input type="checkbox"/> Nitrate-Nitrite	<input type="checkbox"/> Surfactants	<input checked="" type="checkbox"/> Manganese, Total
<input type="checkbox"/> Nitrogen, Total Organic	<input checked="" type="checkbox"/> Aluminum, Total	<input type="checkbox"/> Tin, Total
<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Barium, Total	<input type="checkbox"/> Titanium, Total

For each constituent checked above (those that you expect to be present) provide the estimated daily maximum concentration, daily average concentration and the source of the information.

Constituent	Daily Max	Daily Avg	Source of Information
Aluminum	0.57 mg/l	0.22 mg/l	Representative Sample from Hoover Mine
Iron	1.96 mg/l	0.43 mg/l	Treatment Pond
Manganese	1.47 mg/l	0.47 mg/l	
Sulfate	63 mg/l	52 mg/l	

Toxic Pollutants and Hazardous Substances (EPA Table V)

Refer to Appendix B: Toxic Pollutants and Hazardous Substances. List any constituents from that table that are expected to be present in the discharge. Provide data for each pollutant expected in the discharge or justification of why any are believed to be not present and the source of this information.

There are no known sources present, in the vicinity, of any of the constituents listed in Table V. There are no indications or reason to expect the presence of any of the listed toxic pollutants and hazardous substances.

Effluent Characterization

Discharge Point No. **008**

Complete the following sections for each discharge outfall listed in Outfall Information

Common parameters/pollutants

Complete the table for each constituent. Indicate 'E' if estimate, 'D' if based on actual data. Please include the units of measurement. If you are providing data from one discharge for two or more substantially identical effluents, indicate which outfalls the data represents.			
Constituent	Daily Max	Daily Average	Source of Information
pH	9.0 (E)	8.2 (E)	Representative Sample – Hoover Mine
Total Suspended Solids (TSS)	20 mg/l (E)	10 mg/l (E)	Representative Sample – Hoover Mine
Chemical Oxygen Demand (COD) ¹			
Biochemical Oxygen Demand (BOD) ¹			
Ammonia (NH ₃) ¹			
Total Organic Carbon (TOC) ¹			
Flow	*	*	See chart above
Temperature (high)	25° C (E)	20° C (E)	Estimate
Temperature (low)	12° C (E)	8° C (E)	

¹ Waiver option [40 CFR 122.21(k)(5)(i)]: A waiver is requested for the following constituents that are not anticipated to be present in the discharge:

COD BOD NH₃ TOC

Provide a justification for this waiver request.

No known sources of constituents for which a waiver is requested would be in the vicinity of site pond.

Dioxins

Do you have reason to believe that at any time dioxins were made, used, stored or buried on or directly upgradient from the site designated for mining and/or support area? [TCDD, 2,4,5-TP, Erbon, TCH or HCP under 40 CFR 122.21(g)(7)(viii)] Yes No

If yes, provide information and data characterizing the potential discharge.

Organic Toxic Pollutants (EPA Table II)

Provide waiver justification or data regarding organic toxic pollutants for the mine site.

Waiver: This section is not applicable because this operation fulfills one of the following criteria:

- Coal: This operation produces less than 100,000 tons per year.
- Noncoal: This operation has gross sales of less than \$100,000 per year (1980 dollars).

Data: If a waiver is not applicable, refer to Appendix B: Table II - Organic Toxic Pollutants. List any constituents from that table that are expected to be present in the discharge.

For all constituents listed above, provide a table of the estimated daily maximum concentration, the estimated daily average concentration and the source of this information.

Other Toxic Pollutants (EPA Table III)

Provide an estimate of the concentration that could reasonably expected to be present in the discharges(s)[40 CFR 122.21 (k)(5)(iii)(A)]

Stream Hardness	
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Constituent	Concentration (units)	Source of information
Antimony, Total	0.51 µg/l	Representative sample from the Hoover Mine Treatment Pond
Arsenic, Total	< 5.0 µg/l	
Beryllium, Total	< 1.0 µg/l	
Cadmium, Total	< 0.1 µg/l	
Chromium, Total	< 5.0 µg/l	
Copper, Total	< 4.0 µg/l	
Lead, Total	< 1.0 µg/l	
Mercury, Total	0.00098 µg/l	
Nickel, Total	8.8 µg/l	
Selenium, Total	< 2.0 µg/l	
Silver, Total	< 1.0 µg/l	
Thallium, Total	0.056 µg/l	
Zinc, Total	< 10 µg/l	
Cyanide, Total	<2.7 µg/l	
Phenols, Total	< 5 µg/l	

Conventional and Nonconventional Pollutants (EPA Table IV)

For each of the following constituents, check the boxes for those that you expect to be present in the discharge.

<input type="checkbox"/> Bromide	<input type="checkbox"/> Phosphorus, Total	<input type="checkbox"/> Boron, Total
<input type="checkbox"/> Chlorine, Total Residual	<input type="checkbox"/> Radioactivity	<input type="checkbox"/> Cobalt, Total
<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Sulfate	<input checked="" type="checkbox"/> Iron, Total
<input type="checkbox"/> Fecal Coliform	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Magnesium, Total
<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfite	<input type="checkbox"/> Molybdenum, Total
<input type="checkbox"/> Nitrate-Nitrite	<input type="checkbox"/> Surfactants	<input checked="" type="checkbox"/> Manganese, Total
<input type="checkbox"/> Nitrogen, Total Organic	<input checked="" type="checkbox"/> Aluminum, Total	<input type="checkbox"/> Tin, Total
<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Barium, Total	<input type="checkbox"/> Titanium, Total

For each constituent checked above (those that you expect to be present) provide the estimated daily maximum concentration, daily average concentration and the source of the information.

Constituent	Daily Max	Daily Avg	Source of Information
Aluminum	0.57 mg/l	0.22 mg/l	Representative Sample from Hoover Mine
Iron	1.96 mg/l	0.43 mg/l	Treatment Pond
Manganese	1.47 mg/l	0.47 mg/l	
Sulfate	63 mg/l	52 mg/l	

Toxic Pollutants and Hazardous Substances (EPA Table V)

Refer to Appendix B: Toxic Pollutants and Hazardous Substances. List any constituents from that table that are expected to be present in the discharge. Provide data for each pollutant expected in the discharge or justification of why any are believed to be not present and the source of this information.

There are no known sources present, in the vicinity, of any of the constituents listed in Table V. There are no indications or reason to expect the presence of any of the listed toxic pollutants and hazardous substances.