

## ADDENDUM #1

**Applicant:** Homestake Mining Company

**Permit Number:** SD0000043

**Contact Person:** Todd Duex, Engineering Manager or Karl Burke, General Manager  
630 East Summit Street  
Lead, South Dakota 57754-1700  
(605) 584-4653

**Permit Type:** Response to Comments

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### DESCRIPTION

On June 24, 2004, the Department of Environment and Natural Resources (DENR) provided public notice of a renewal permit for the Homestake Mining Company's (Homestake) SD0000043 permit. During the public notice period, the department received comment from Homestake. The Administrative Rules of South Dakota (ARSD) §74:52:05:20 states the following:

*Response to comments. At the time that any final permit is issued, the secretary shall issue a response to all written comments received during the period of public notice.*

This addendum will provide the department's response to the comments received, along with detailing any changes made to the permit as a result of the comments.

### HOMESTAKE MINING COMPANY

On July 23, 2004, Karl Burke, on behalf of Homestake, submitted the following comments regarding the Biological Monitoring requirements contained in the permit:

*Section 1.8, Biological Monitoring: Further to our comments submitted in our May 7, 2004 letter, Homestake would like to reiterate herein that biomonitoring in Gold Run and Whitewood Creeks may not reflect conditions related to Outfall 001, Homestake's wastewater treatment plant discharge. As stated in the May 7 letter, Homestake is proposing that these reaches of Gold Run and Whitewood Creeks be evaluated by Chadwick Ecological Consultants and the South Dakota Department of Game, Fish and Parks to determine if a representative annual biological monitoring plan could be developed for Outfall 001. If biological monitoring is to be required by the renewed permit, Homestake proposes the following revisions:*

- 1. Section 1.8(1): Revise the first bullet to indicate that the Habitat Assessment will be conducted so that one site is monitored each year with a different site monitored each*

*subsequent year on a rotational basis.*

2. *Section 1.8(2): Revise the section to indicate that the water quality sample can be collected as part of the site's routine monitoring anytime within 30 days of the biomonitoring.*
3. *Section 1.8(4): The date in this section should be revised to indicate that the annual reports must be completed by April 15<sup>th</sup> of the year following monitoring. Having the annual reports due on April 15<sup>th</sup> would allow adequate time to complete the laboratory work and report writing.*
4. *Section 1.8(5): Accordingly, the tissue sampling results should be due with the annual biomonitoring report on April 15<sup>th</sup> of the year following the monitoring.*

On July 14, 2004, DENR participated in a meeting with Homestake, Golden Reward, LAC Minerals (USA) Inc., Wharf Resources (USA) Inc., and the South Dakota Department of Game, Fish, and Parks, to discuss the biological monitoring required in mining related surface water discharge permits. Standard protocols for Habitat Assessment, Fish Populations, Benthic Invertebrate Populations, and Periphytic Algae were discussed. Logistical issues relating to sample collection and report submittal were also discussed.

Based on the outcomes of the meeting, and comments issued during the public notice period, the department proposes the following changes to Section 1.8 of the permit:

**Comment 1:** *Section 1.8(1): Revise the first bullet to indicate that the Habitat Assessment will be conducted so that one site is monitored each year with a different site monitored each subsequent year on a rotational basis.*

The department proposes no changes to the language contained in the permit. The department has considered and agreed that Habitat Assessment will be conducted at one site per year with a different site monitored each subsequent year on a rotational basis. This issue will be addressed in the approval of the biological plan submitted to the department, and therefore not addressed by this addendum.

**Comment 2:** *Section 1.8(2): Revise the section to indicate that the water quality sample can be collected as part of the site's routine monitoring anytime within 30 days of the biomonitoring.*

The department has agreed that water quality sample results can be collected separate from the annual biomonitoring activities. The paragraph in Section 1.8.2 will be changed to reflect the following language:

During the annual biomonitoring, Homestake shall also analyze the water quality at each sampling site. The locations for the sampling shall be detailed in the plan submitted to the Department of Environment and Natural Resources under paragraph 1 above. The instream water quality monitoring must be conducted within 30 days of the annual

biomonitoring. Samples collected from compliance points may be substituted in lieu of additional sampling. **Any parameters described below that are not collected as part of compliance monitoring must be collected for the annual biomonitoring.** The sampling shall be conducted for the following parameters, at a minimum...

This change is considered a minor modification and not subject to further public notice.

In addition to the water quality samples required for the annual biomonitoring, dissolved Phosphorus (mg/L) will be added to the parameter list. This addition is considered a minor modification under ARSD §74:52:04:06 (2), which allows more frequent monitoring by the permittee. No further public notice is required for this action.

**Comment 3:** *Section 1.8(4): The date in this section should be revised to indicate that the annual reports must be completed by April 15<sup>th</sup> of the year following monitoring. Having the annual reports due on April 15<sup>th</sup> would allow adequate time to complete the laboratory work and report writing.*

Based on the workload generated in conducting biological monitoring and development of the annual report, the department agrees in changing the report submittal date from **February 1<sup>st</sup>** to **April 15<sup>th</sup>**. This will allow Homestake sufficient time for report submittal. This change is considered a minor modification, and not subject to further public notice.

**Comment 4:** *Section 1.8(5): Accordingly, the tissue sampling results should be due with the annual biomonitoring report on April 15<sup>th</sup> of the year following the monitoring.*

Based on same argument for comment 3 above, the department agrees to change tissue sampling report submittal from March 1, 2006 to April 15, 2006. This change is considered a minor modification, and not subject to further public notice.

## **FINAL PERMIT DECISION**

ARSD §74:52:05:19 states the following:

*Effective date of permit. The final permit decision is effective 30 days after the service of notice of the decision except under the following circumstances:*

- (1) A later effective date is specified in the decision;*
- (2) A hearing is requested under § 74:52:05:15; or*
- (3) No comments or requests for changes in the proposed permit were received during the public notice period, in which case the permit is effective upon receipt by the applicant of the final permit decision.*

The Secretary is proposing to issue the final permit to Homestake, with the modifications outlined in this addendum to the statement of basis, which responds to the comments received. The permit will have an effective date of October 1, 2004.

## **PERMIT EXPIRATION**

A five year is recommended.

## **PERMIT CONTACT**

Any questions pertaining to this addendum and response to comments may be directed to Michael Pogany E.I.T, Natural Resources Project Engineer for the Surface Water Quality Program, at (605) 394-2229.

July 30, 2004

## STATEMENT OF BASIS

**Applicant:** Homestake Mining Company

**Permit Number:** SD0000043

**Contact Persons:** Todd Duex, Engineering Manager or Karl Burke, General Manager  
630 East Summit Street  
Lead, South Dakota 57754-1700  
(605) 584-4653

**Permit Type:** Major Industrial Wastewater Treatment Facility - Renewal

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### DESCRIPTION

#### Site Description

Homestake Mining Company (Homestake) operated an underground gold mining operation in Lead, South Dakota. The company was originally founded in 1877 and produced gold until 2002. Homestake officially shutdown gold mining operations in December 2001, and is in the process of reclaiming the site. Homestake is currently under consideration for conversion to an underground physics laboratory in conjunction with the National Science Foundation and the South Dakota School of Mines and Technology. Homestake's wastewater treatment system is located in the northwest ¼ of Section 34, Township 5 North, Range 3 East, in Lawrence County (Latitude 44° 21' 13", Longitude 103° 44' 39" map interpolation).

#### Former Process Description

Ore was removed from the underground mine, transported to the surface, and initially "dry" crushed in three stages. This crushing reduced the ores from up to six inches in size into pieces that were less than one-half inch in size. The ore material was then passed through mills that ground the ore further. Water was added as the ore passed through the mills to aid in the crushing process. The ore then passed through a classifier that removed the particles of ore that were ground fine enough for gold removal and returned the coarser particles of ore back to the mills for regrinding. After ore left the classifier, it was ready for the gold recovery process.

Gold was recovered at Homestake by both gravity concentration and the cyanidation process. After the classifiers, the ore material was split into a granular sand portion and a clay-like portion. The sand portion was placed in large vats and a weak cyanide solution was then added to the top of the sand. The solution dissolved the gold as it percolated downward through the sand. The gold-bearing solution passed through the canvas filters in the bottom of the vats and was then further processed to recover the gold. The sand was then washed out of the vats, collected in reservoirs and returned to the mine as needed to backfill mined-out areas or transported to the Grizzly Gulch Tailings Impoundment Dam.

The clay-like portion was dissolved by the cyanide in large agitation tanks. The gold was adsorbed from the solution by particles of granular activated carbon in suspension in the slurry. Carbon particles were then screened from the pulp and washed. The gold was stripped from the carbon with hot caustic cyanide solution and deposited by electrolysis on steel-wool cathodes. These were later converted to gold bullion in the refinery where impurities such as zinc, iron, and copper were removed.

The mill and facilities for producing gold at the mine were removed after the mine ceased active operations in 2001.

### **Wastewater Treatment Process Description**

Operation of the wastewater treatment plant (WWTP) begins with collection and distribution of the wastewater to be treated. Water is pumped from the Grizzly Gulch Tailings Impoundment Dam for treatment. The WWTP previously treated water from the tailings dam and water from the underground mine workings. However, with the mine closure, pumps transporting water to the surface have been shutoff and the underground mining areas are slowly being allowed to fill.

Occasionally, soda ash, and/or phosphoric acid are added to improve treatment. Since the removal of underground mine water, treatment of the water from the tailings dam has required the installation of a boiler. The boiler heats the water from the dam which aids in the biological treatment process. The wastewater treatment plant consists of 48 rotating biological contactors (RBCs) with a maximum design flow of 5.5 million gallons per day (MGD). The influent is proportioned equally to each train of RBCs through v-notch gates in the central influent channel. The first stage of RBCs consists of two disks in a basin with a one-hour hydraulic detention time. Supplemental air diffusers are utilized in this stage to maintain dissolved oxygen in the highly aerobic system. When the wastewater exits stage one, cyanide and metals concentrations are at trace levels and ammonia is elevated.

The second treatment stage of RBCs consists of three higher surface area disks in a single basin with a hydraulic detention time of 90 minutes. This stage is utilized to convert ammonia to nitrate. The nitrification stage also acts to polish residual traces of cyanide and metals. The final three stages of RBCs serve to denitrify the wastewater.

The treated effluent is collected and routed through the influent chemical building where the potential exists to add a polymeric chemical to aid flocculation in the final clarifier. The effluent then enters a 27.5-meter diameter clarifier with a hydraulic detention time of four hours. A second two-cell, square basin with a hydraulic detention time of two hours is available for additional clarification when necessary. A center collection well with underflow allows the collection of settled biomass from the RBCs, which flows by gravity to the tailings impoundment.

Following clarification, the wastewater is filtered through three pressure sand filter beds. These filters further reduce total suspended solids concentrations. The treated effluent is

then discharged over a waterfall to Gold Run Creek. This method of discharge adds dissolved oxygen to the discharge.

A schematic of the treatment system, discharge location, and instream monitoring sites are enclosed in Attachment 1.

## RECEIVING WATERS

Any discharge from the Homestake WWTP through Outfall 001 enters Gold Run Creek, which then flows about ¼ mile to Whitewood Creek. Gold Run Creek is classified by the South Dakota Surface Water Quality Standards (SDSWQS), Administrative Rules of South Dakota (ARSD), Section 74:51:03:01 for the following beneficial uses:

- (9) Fish and wildlife propagation, recreation, and stock watering waters; and
- (10) Irrigation waters.

Whitewood Creek from the confluence of Gold Run Creek to Interstate 90, is classified by the SDSWQS, ARSD, Sections 74:51:03:01 and 74:51:03:10 for the following beneficial uses:

- (3) Coldwater marginal fish life propagation waters;
- (7) Immersion recreation waters;
- (8) Limited-contact recreation waters;
- (9) Fish and wildlife propagation, recreation, and stock watering waters; and
- (10) Irrigation waters.

Since the receiving waterbody has the beneficial use classifications of (9) and (10), as stated above, the SDSWQS (ARSD Section 74:51:01:02.01) require that an analysis of the receiving stream be conducted to determine whether the waterbody deserves a higher beneficial use designation. The South Dakota Department of Environment and Natural Resources (SDDENR) conducted an analysis for the Gold Run Creek near the discharge location. SDDENR personnel have determined that the beneficial use classifications for Gold Run Creek are appropriate and will remain unchanged.

## SITE SPECIFIC CRITERIA

On March 5, 1992, the Water Management Board adopted Site Specific Criteria for the stretch of Whitewood Creek extending from the confluence with Gold Run Creek to Interstate 90. The following allowable instream concentrations were established for this segment (all values are 30-day averages) and are listed in ARSD §74:51:01:56:

Parameter	30-Day Average (µg/L)
Weak acid dissociable (wad) cyanide	80
Total recoverable cadmium	10
Total recoverable copper	80

Total recoverable lead	70
Total recoverable mercury	0.8
Total recoverable silver	20

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Effluent limitations for total suspended solids are established at 18 mg/L as a 30-day average for the Lead-Deadwood Sanitary District and 10 mg/L as a 30-day average for Homestake Mining Company.

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The water quality standards listed in ARSD, Chapter 74:51:01 apply for the parameters not listed above.

**ANTIDegradation**

SDDENR has fulfilled the antidegradation review requirements for this permit. In accordance with South Dakota’s Antidegradation Implementation Procedure and the SDSWQS, no further review is required. The results of SDDENR’s review are included in Attachment 2.

**SELF MONITORING DATA**

Homestake has submitted its Discharge Monitoring Reports (DMRs) as required by the current Surface Water Discharge permit. The sampling data for Outfall 001 and two instream monitoring locations, MTL 1 and MTL2, are included in Attachment 3. For further description of the instream monitoring locations, refer to the *Instream Monitoring* section below. Values highlighted and in bold text indicate permit violations. According to the data, Homestake has experienced one instream Temperature violation, two Ammonia-Nitrogen violations, one Weak Acid Dissociable Cyanide violation, and three whole effluent toxicity violations in the last five years. These violations appear to be isolated incidents and do not reflect the overall performance of the treatment facility. No further violations are anticipated.

**INSPECTIONS**

SDDENR personnel conducted a Compliance Evaluation Inspection of Homestake’s wastewater treatment plant on June 5, 2003. No deficiencies were noted during the inspection.

**EFFLUENT LIMITS**

Effective immediately, Homestake must meet the following effluent limits, which are based on the SDSWQS, the Total Maximum Daily Loads (TMDLs) conducted for Whitewood Creek, the current permit, and Best Professional Judgement (BPJ). EPA has established federal effluent guidelines for ore mining operations, which are found at 40 CFR Part 440. The effluent guidelines are based on the best available technology and best practicable control technology. The water quality-based limits, as established by the TMDLs for Whitewood Creek, are more stringent than the effluent guidelines. Therefore,

except as noted below, the effluent guidelines were not used to establish permit limits for Homestake's discharge.

**Outfall 001** Any discharge of treated water from the Homestake Mining Company's wastewater treatment plant to Gold Run Creek (Latitude 44° 21' 17", Longitude 103° 44' 35", – Permit Application).

1. The Total Suspended Solids (TSS) concentration shall not exceed 10 mg/L (30-day average) or 30 mg/L (daily maximum). The 30-day average limit is based on the site-specific criteria for Whitewood Creek (ARSD §74:51:01:56). The daily maximum of 30 mg/L is based on the best practicable control technology found at 40 CFR 440.102.
2. The pH shall not be less than 6.5 nor greater than 8.8 standard units in any single analysis or measurement. These limits are based on the coldwater marginal fish life propagation waters classification of Whitewood Creek, current permit limits, and the SDSWQS (ARSD §74:51:01:46).

**Note:** SDDENR specifies that pH analyses are to be conducted within 15 minutes of sample collection with a pH meter. Therefore, the permittee must have the ability to conduct onsite pH analyses. The pH meter used must be capable of simultaneous calibration to two points on the pH scale that bracket the expected pH and are approximately three standard units apart. The pH meter must read to 0.01 standard units and be equipped with temperature compensation adjustment.

3. Homestake's discharge shall not cause the temperature of Whitewood Creek to exceed 75° F. This limit is based on the coldwater marginal fish life propagation waters classification of Whitewood Creek, current permit limits, and the SDSWQS (ARSD §74:51:01:46).
4. The ammonia-nitrogen concentration shall not exceed the limits specified in the table below. These limits are based on a TMDL developed in accordance with Section 303(d) of the federal Clean Water Act, and the SDSWQS. The TMDL is based on the background water quality of Whitewood Creek, the surface water quality standard for un-ionized ammonia of 0.02 mg/L, and BPJ. See the *TMDL for Whitewood Creek near Lead South Dakota, 1999* for more detail. The 0.02 mg/L instream standard for un-ionized ammonia is based on the coldwater marginal fish life propagation waters use of Whitewood Creek and the SDSWQS (ARSD §74:51:01:46). The results of the TMDL are available from the department upon request.

<i>Season</i>	<b>30-day Average (lbs/day)</b>	<b>Daily Maximum (lbs/day)</b>
Winter (December 1 – February 29)	12.5	23.4
Spring (March 1– May 31)	13.6	25.4
Summer (June 1 – September 30)	10.7	20.2
Fall (October 1– November 30)	15.5	27.7

A review of water quality samples from a downstream water quality monitoring site, 460122, indicates that Whitewood Creek is meeting water quality standards for Ammonia-Nitrogen. Therefore, limits in the existing permit will remain in effect for this permit renewal.

- The discharge shall not exceed the following limits for Cyanide - Weak Acid Dissociable (WAD), Arsenic, Copper, Lead, Mercury, and Silver.

<i>Parameter</i>	<b>30-day Average (lbs/day)</b>	<b>Daily Maximum (lbs/day)</b>
Cyanide – WAD	3.9	3.9
Total Recoverable Arsenic	9.6	9.6
Total Recoverable Copper	3.9	3.9
Total Recoverable Lead	3.6	3.6
Total Recoverable Mercury	0.031	0.031
Total Recoverable Silver	1.0	1.0

The limits for Arsenic, Mercury, and Silver were based on the TMDLs developed for this segment of Whitewood Creek, which were conducted in accordance with section 303(d) of the federal Clean Water Act. The TMDL is based on the background water quality of Whitewood Creek. See the *TMDL for Whitewood Creek near Lead South Dakota, 1999* for more detail. The supporting documentation and report for the Whitewood Creek TMDLs contain additional details on how these limits were developed.

The limits for WAD Cyanide, Copper, and Lead were based on the previous permit. TMDLs were also conducted in 1999 for these parameters to ensure that the beneficial uses of Whitewood Creek are protected and the water quality standards are maintained. However, the limits based on the TMDL were slightly less stringent than those in the permit issued April 1, 1999. Therefore, to prevent backsliding, the limits from the previous permit will be continued in this proposed

permit. A review of water quality samples from a downstream water quality monitoring site, 460122, indicates that Whitewood Creek is meeting water quality standards for the required metals. Therefore, limits in the existing permit will remain in effect for this permit renewal.

The site-specific criteria for this section of Whitewood Creek are 30-day averages, daily maximum levels were not established. Therefore, to ensure that the site-specific criteria are maintained at all times, the daily maximum limits listed above are the same as the 30-day averages.

Using BPJ and EPA's Reasonable Potential, as discussed in EPA's *Technical Support Document for Water Quality-based Toxics Control*, it was determined that TMDLs for Cadmium, Chromium, Nickel, and Zinc were not necessary. The Whitewood Creek TMDL document contains additional information on the Reasonable Potential analysis for Whitewood Creek and Homestake's discharge.

6. The Total Recoverable Selenium concentration shall not exceed 5 µg/L (30-day average) or 20 µg/L (daily maximum). These limits are based on the fish and wildlife propagation, recreation, and stock watering waters classification of Gold Run Creek and the SDSWQS (ARSD §74:51:01:52).
7. The Total Petroleum Hydrocarbons concentration shall not exceed 10 mg/L or impart a visible film or sheen to the surface of the water or adjoining shorelines. These limits are based on Whitewood Creek's classification as fish and wildlife propagation, recreation, and stock watering waters and the SDSWQS (ARSD §§74:51:01:10 and 74:51:01:52).
8. There shall be no discharge of any sanitary wastes. This limit is based on BPJ and the current permit.
9. There shall be no toxicity in Homestake's discharge at less than or equal to the instream waste concentration, as measured by the chronic whole effluent toxicity test. This limit is based on the SDSWQS (ARSD §74:51:01:12) and the USEPA – Region VIII policy for whole effluent toxicity.

Effluent flow rate in million gallons per day (MGD), effluent water temperature °F, Nitrates as N (mg/L), Hardness (mg/L), Five-day Biochemical Oxygen Demand (mg/L), Total Recoverable Cadmium, Total Recoverable Chromium, Total Recoverable Nickel, and Total Recoverable Zinc, shall be monitored but will have no limits.

### **SELF MONITORING REQUIREMENTS**

All discharges and unauthorized releases shall be monitored for the following parameters at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored discharge.

Parameter	Frequency	Reporting Requirements	Sample Type <sup>1</sup>
Flow, MGD	Daily	Daily Minimum Daily Maximum 30-day Average	Continuous
Total Suspended Solids, mg/L	Daily	30-day Average Daily Maximum	24 Hr Composite
pH, standard units	Daily	Daily Minimum Daily Maximum	Instantaneous
Effluent Water Temperature, °F	Daily	30-day Average Daily Maximum	Instantaneous
Water Temperature, °F <sup>2</sup>	Daily	30-day Average Daily Maximum	Instantaneous
Ammonia-Nitrogen, mg/L	Daily	30-day Average Daily Maximum	24 Hr Composite
Ammonia-Nitrogen, lbs/day	Daily	30-day Average Daily Maximum	24 Hr Composite
Nitrates (as N), mg/L	Weekly	30-day Average Daily Maximum	24 Hr. Composite
Cyanide-Weak Acid Dissociable, lbs/day	Weekly	30-day Average Daily Maximum	24 Hr Composite
Hardness, mg/L	Weekly	30-day Average Daily Minimum	24 Hr Composite
Five-day Biochemical Oxygen Demand, mg/L	Monthly	30-day Average Daily Minimum	24 Hr Composite
Total Petroleum Hydrocarbons, mg/L	Weekly	Present/Absent Daily Maximum	Visual/Grab <sup>3</sup>
Total Recoverable Arsenic, lbs/day, µg/L	Weekly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Cadmium, lbs/day, µg/L	Monthly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Chromium, lbs/day, µg/L	Monthly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Copper, lbs/day, µg/L	Weekly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Lead, lbs/day, µg/L	Weekly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Mercury, lbs/day, µg/L	Weekly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Nickel, lbs/day, µg/L	Monthly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Selenium, µg/L	Weekly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Selenium, lbs/day	Weekly	30-day Average Daily Maximum	24 Hr Composite
Total Recoverable Silver, lbs/day, µg/L	Weekly	30-day Average Daily Maximum	24 Hr Composite

Parameter	Frequency	Reporting Requirements	Sample Type <sup>1</sup>
Total Recoverable Zinc, lbs/day, µg/L	Monthly	30-day Average Daily Maximum	24 Hr Composite
Chronic WET	Quarterly <sup>4</sup>	Pass/Fail	24-hr Composite

<sup>1</sup> See definitions.

<sup>2</sup> This measurement shall be taken instream in Whitewood Creek, 100 yards below the confluence with Gold Run Creek (Longitude 103° 44' 20"; Latitude 44° 21' 32").

<sup>3</sup> TPH shall be visually monitored at the frequency stated above. A grab sample shall be taken if a visual sheen is observed and a concentration shall be determined using EPA method 418.1.

<sup>4</sup> Homestake shall, at least once each quarter, conduct chronic short-term toxicity tests on a composite sample of the final effluent, in accordance with the requirements of the permit.

### ***Instream Monitoring***

In addition to the above self-monitoring requirements, the permit will require that two sites instream on Whitewood Creek continued to be monitored **monthly** by Homestake. **If a discharge is no longer occurring from Outfall 001, Homestake may request in writing, that instream monitoring be eliminated. The department will review the request and may approve it without further public notice.**

These two sites, as currently labeled by Homestake, are as follows: SC06WWPB - Whitewood Creek at Pluma Bridge (**MTL1** – Latitude 44° 21' 30", Longitude 103° 44' 22") and SC35WWGR - Whitewood Creek below Gold Run Creek (**MTL2** – Latitude 44° 21' 44", Longitude 103° 44' 24").

The following parameters shall be monitored monthly at these two locations on Whitewood Creek:

Parameter	Sample Type <sup>1</sup>
pH	Instantaneous
Total Suspended Solids, mg/L	Grab
Total Petroleum Hydrocarbons, mg/L	Visual/Grab
Cyanide - Weak Acid Dissociable, µg/L	Grab
Hardness, mg/L	Grab
Total Recoverable Arsenic, µg/L	Grab
Total Recoverable Cadmium, µg/L	Grab
Total Recoverable Chromium, µg/L	Grab
Total Recoverable Copper, µg/L	Grab

<sup>1</sup> See definitions in the proposed permit.

Parameter	Sample Type <sup>1</sup>
Total Recoverable Lead, µg/L	Grab
Total Recoverable Mercury, µg/L	Grab
Total Recoverable Nickel, µg/L	Grab
Total Recoverable Selenium, µg/L	Grab
Total Recoverable Silver, µg/L	Grab
Total Recoverable Zinc, µg/L	Grab

The results of this additional monitoring shall be reported on separate Discharge Monitoring Reports and submitted to SDDENR and EPA on a monthly basis.

### Inspections

Homestake shall conduct inspections of the treatment facilities and outfall **daily** during any discharges from the wastewater treatment facility. These inspections shall be conducted to verify that proper operation and maintenance procedures are being practiced, and to determine if there is an unauthorized discharge occurring. Documentation of each of these inspections shall be kept in a notebook to be reviewed by SDDENR or EPA personnel when an inspection occurs.

### Whole Effluent Toxicity Requirements

Homestake shall be required to continue chronic whole effluent toxicity (WET) testing on *Ceriodaphnia dubia* and fathead minnows for discharges from Outfall 001. The test shall be conducted on a sample of the effluent at the instream waste concentration (IWC). The IWC is defined as:

$$\frac{Q_{HMC}}{Q_{WWC}}$$

Where,

$$Q_{HMC} = \text{Effluent flow from Homestake discharge, in cfs}$$

$$Q_{WWC} = \text{Instream flow of Whitewood Creek, downstream of the confluence with Gold Run Creek at SD35WWGR, in cfs}$$

Refer to section 1.5 of the permit for further description of WET testing procedures.

If the results for four consecutive quarters of testing indicate no chronic toxicity, Homestake may request that DENR allow a reduction to quarterly chronic toxicity testing on only one species on an alternating basis. DENR may approve or deny the request based on the results and other available information without an additional public notice. If the request is approved, the test procedures are to be the same as specified in the proposed permit for the test species.

## BIOLOGICAL MONITORING

1. If a discharge is still occurring from Outfall 001 after **January 1, 2005**, Homestake shall be required to work with the Department of Environment and Natural Resources and the Department of Game, Fish and Parks to develop an annual biomonitoring program for Gold Run Creek and Whitewood Creek as appropriate. The program shall include, at a minimum:
  - Habitat Assessment, including monitoring for stream bank vegetation, vegetation overhang, substrate composition, percent surface fines, and water depth.
  - Fish Populations to determine species composition, abundance, biomass, and size structure of the fish communities. The sampling shall also determine whether species are naturally reproducing or are being recruited from other sources.
  - Benthic Invertebrate Populations shall be sampled semi-quantitatively. The biomonitoring program shall include at least one metric from each of the following measures: Richness, Tolerance, Trophic Habitat, and Composition. Redundancy can be evaluated during the calibration phase to eliminate overlapping metrics.
  - Periphytic algae shall be sampled quantitatively at all monitoring sites. The program shall include at least one metric from each of the following measures: Richness, Tolerance, Trophic Habitat, and Composition. Redundancy can be evaluated during the calibration phase to eliminate overlapping metrics.
  
2. During the annual biomonitoring, Homestake shall also analyze the water quality at each sampling site. The locations for the sampling shall be detailed in the plan submitted to the Department of Environment and Natural Resources under paragraph 1 above. The sampling shall be conducted for the following parameters, at a minimum:

Flow, MGD  
Water Temperature, °C  
pH, standard units  
Visible Pollutants  
Total Dissolved Solids, mg/L  
Total Suspended Solids, mg/L  
Nitrates (as N), mg/L  
Hardness (expressed as Ca<sup>2+</sup> and Mg<sup>2+</sup>), mg/L  
Total Recoverable Arsenic, µg/L  
Total Recoverable Cadmium, µg/L  
Total Recoverable Copper, µg/L  
Total Recoverable Chromium, µg/L

Total Recoverable Iron, µg/L  
Total Recoverable Lead, µg/L  
Total Recoverable Mercury, µg/L  
Total Recoverable Nickel, µg/L  
Total Recoverable Selenium, µg/L  
Total Recoverable Silver, µg/L  
Total Recoverable Zinc, µg/L  
WAD Cyanide, mg/L  
Selenate (Se<sup>6+</sup>)  
Selenite (Se<sup>4+</sup>)

3. A draft study plan must be developed by Homestake and submitted to the Department of Environment and Natural Resources for review and approval by **April 1, 2005**. Homestake must complete this annual biomonitoring program in accordance with the approved plan by **October 1<sup>st</sup> of each year**. Once approved, this study plan will become an enforceable provision of this permit.
4. Once the annual monitoring is complete, Homestake shall submit an annual report of the findings to the Department of Environment and Natural Resources and the Department of Game, Fish and Parks. The report shall include information on the current aquatic life populations and analyze any trends in the populations from previous years. The first annual report shall be due **February 1, 2006**. Each annual report thereafter shall be due by February 1<sup>st</sup> of the following year.
5. If a discharge is still occurring from Outfall 001 after **January 1, 2005**, in addition to the annual biomonitoring plan outlined above, Homestake shall be required to conduct an analysis of tissues in Whitewood Creek for selenium. Homestake shall submit a tissue sampling plan to the Department of Environment and Natural Resources and the Department of Game, Fish and Parks for review by **May 1, 2005**. Once the plan is approved by Department of Environment and Natural Resources, the fish flesh sampling shall be completed by **October 1, 2005**, in accordance with the approved plan. Homestake shall submit the results of the analysis to the Department of Environment and Natural Resources and Department of Game, Fish and Parks within 30 days of receipt of the laboratory results, but no case shall the results be submitted later than **March 1, 2006**.

### **ENDANGERED SPECIES**

The Whooping Crane, Bald Eagle, and the Least Tern are three endangered or threatened species in the permittee's location. However, no species are expected to be impacted by activities related to this permit.

### **PERMIT EXPIRATION**

A five-year permit is recommended.

## **PERMIT CONTACT**

Any questions pertaining to this statement of basis can be directed to Michael Pogany, Natural Resources Project Engineer for the Surface Water Quality Program, at (605) 394-2229.

August 17, 2004

**ATTACHMENT 1**  
**Wastewater System Schematic**  
**and Discharge Location**

**ATTACHMENT 2**  
**Antidegradation Review**

Permit Type: Major Industrial Applicant: Homestake Mining Company  
Date Received: 10/01/2003 Permit #: SD0000043  
County: Lawrence Legal Description: NW ¼ Sec 34, T5N, R3E  
Receiving Stream: Gold Run Creek Classification: 9,10  
If the discharge affects a downstream waterbody with a higher use classification, list its name and uses: Whitewood Creek 3,7,8,9,10

## APPLICABILITY

1. Is the permit or the stream segment exempt from the antidegradation review process under ARSD 74:51:01? Yes  No  If no, go to question #2. If yes, check those reasons why the review is not required:
- Existing facility covered under a surface water discharge permit is operating at or below design flows and pollutant loadings;
  - \*Existing effluent quality from a surface water discharge permitted facility is in compliance with all discharge permit limits;
  - \*Existing surface water discharge permittee was discharging to the current stream segment prior to March 27, 1973, and the quality and quantity of the discharge has not degraded the water quality of that segment as it existed on March 27, 1973;
  - \*The existing surface water discharge permittee, with DENR approval, has upgraded or built new wastewater treatment facilities between March 27, 1973, and July 1, 1988;
  - The existing surface water discharge permittee discharges to a receiving water assigned only the beneficial uses of (9) and (10); the discharge is not expected to contain toxic pollutants in concentrations that may cause an impact to the receiving stream; and DENR has documented that the stream cannot attain a higher use classification. This exemption does not apply to discharges that may cause impacts to downstream segments that are of higher quality;
  - Receiving water meets Tier 1 waters criteria. Any permitted discharge must meet water quality standards;
  - The permitted discharge will be authorized by a Section 404 Corps of Engineers Permit, will undergo a similar review process in the issuance of that permit, and will be issued a 401 certification by the department, indicating compliance with the state's antidegradation provisions; or
  - Other: This permit does not authorize an increase in permit limits.

\*An antidegradation review is not required where the proposal is to maintain or improve the existing effluent levels and conditions. Proposals for increased effluent levels, in these categories of activities are subject to review.

**No further review required.**

**ANTIDegradation Review Summary**

11. The outcome of the review is:

- A formal antidegradation review was not required for reasons stated in this worksheet. Any permitted discharge must ensure water quality standards will not be violated.
- The review has determined that degradation of water quality should not be allowed. Any permitted discharge would have to meet effluent limits or conditions that would not result in any degradation estimated through appropriate modeling techniques based on ambient water quality in the receiving stream, or pursue an alternative to discharging to the waterbody.
- The review has determined that the discharge will cause an insignificant change in water quality in the receiving stream. The appropriate agency may proceed with permit issuance with the appropriate conditions to ensure water quality standards are met.
- The review has determined, with public input, that the permitted discharge is allowed to discharge effluent at concentrations determined through a total maximum daily load (TMDL). The TMDL will determine the appropriate effluent limits based on the upstream ambient water quality and the water quality standard(s) of the receiving stream.
- The review has determined that the discharge is allowed. However, the full assimilative capacity of the receiving stream cannot be used in developing the permit effluent limits or conditions. In this case, a TMDL must be completed based on the upstream ambient water quality and the assimilative capacity allowed by the antidegradation review.
- Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

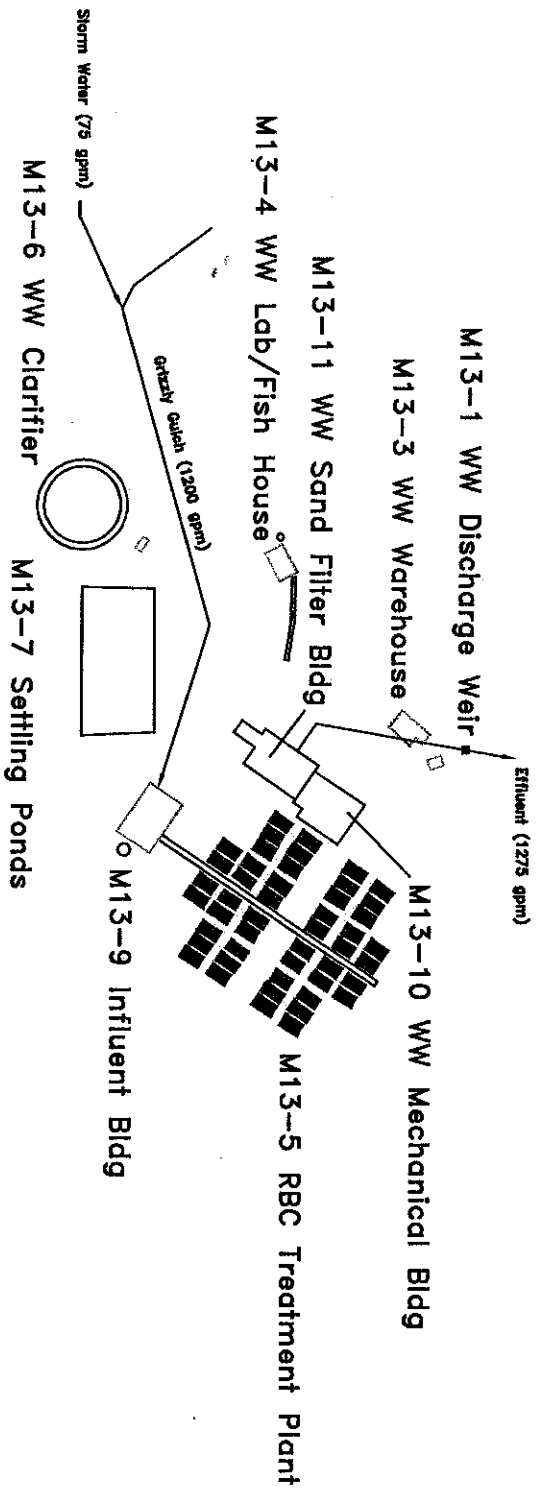
Michael Pogany, E.I.T.  
Reviewer

March 22, 2004  
Date

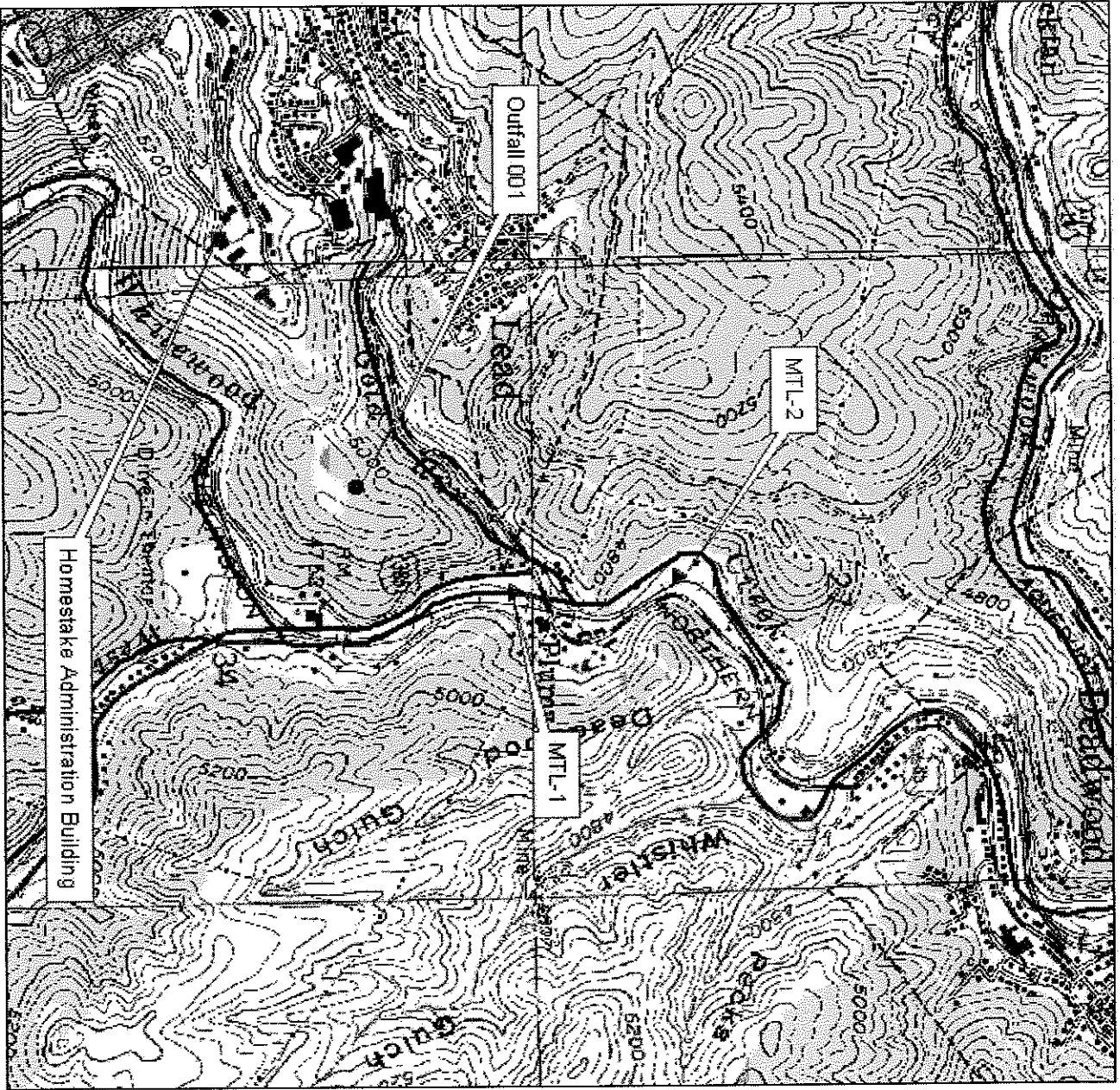
Kelli D. Buscher, P.E.  
Team Leader

March 22, 2004  
Date

**ATTACHMENT 1**  
**Wastewater System Schematic**  
**and Discharge Location**

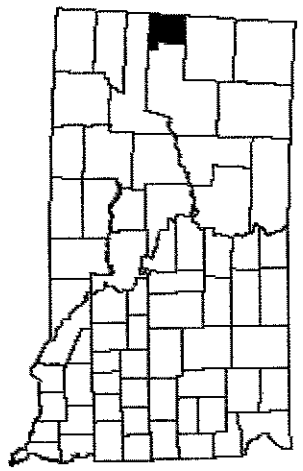


# Waste Water Treatment Plant



**Explanation**

- ▲ Sampling Points
- SD Hydrology



**ATTACHMENT 2**  
**Antidegradation Review**

Permit Type: Major Industrial Applicant: Homestake Mining Company  
 Date Received: 10/01/2003 Permit #: SD0000043  
 County: Lawrence Legal Description: NW ¼ Sec 34, T5N, R3E  
 Receiving Stream: Gold Run Creek Classification: 9,10  
 If the discharge affects a downstream waterbody with a higher use classification, list its name and uses: Whitewood Creek 3,7,8,9,10

**APPLICABILITY**

1. Is the permit or the stream segment exempt from the antidegradation review process under ARSD 74:51:01? Yes  No  If no, go to question #2. If yes, check those reasons why the review is not required:

- Existing facility covered under a surface water discharge permit is operating at or below design flows and pollutant loadings;
- \*Existing effluent quality from a surface water discharge permitted facility is in compliance with all discharge permit limits;
- \*Existing surface water discharge permittee was discharging to the current stream segment prior to March 27, 1973, and the quality and quantity of the discharge has not degraded the water quality of that segment as it existed on March 27, 1973;
- \*The existing surface water discharge permittee, with DENR approval, has upgraded or built new wastewater treatment facilities between March 27, 1973, and July 1, 1988;
- The existing surface water discharge permittee discharges to a receiving water assigned only the beneficial uses of (9) and (10); the discharge is not expected to contain toxic pollutants in concentrations that may cause an impact to the receiving stream; and DENR has documented that the stream cannot attain a higher use classification. This exemption does not apply to discharges that may cause impacts to downstream segments that are of higher quality;
- Receiving water meets Tier 1 waters criteria. Any permitted discharge must meet water quality standards;
- The permitted discharge will be authorized by a Section 404 Corps of Engineers Permit, will undergo a similar review process in the issuance of that permit, and will be issued a 401 certification by the department, indicating compliance with the state's antidegradation provisions; or
- Other: This permit does not authorize an increase in permit limits.

\*An antidegradation review is not required where the proposal is to maintain or improve the existing effluent levels and conditions. Proposals for increased effluent levels, in these categories of activities are subject to review.

**No further review required.**

**ANTIDegradation Review Summary**

11. The outcome of the review is:

- A formal antidegradation review was not required for reasons stated in this worksheet. Any permitted discharge must ensure water quality standards will not be violated.
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- The review has determined that the discharge will cause an insignificant change in water quality in the receiving stream. The appropriate agency may proceed with permit issuance with the appropriate conditions to ensure water quality standards are met.
- The review has determined, with public input, that the permitted discharge is allowed to discharge effluent at concentrations determined through a total maximum daily load (TMDL). The TMDL will determine the appropriate effluent limits based on the upstream ambient water quality and the water quality standard(s) of the receiving stream.
- The review has determined that the discharge is allowed. However, the full assimilative capacity of the receiving stream cannot be used in developing the permit effluent limits or conditions. In this case, a TMDL must be completed based on the upstream ambient water quality and the assimilative capacity allowed by the antidegradation review.
- Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Michael Pogany, E.I.T.  
Reviewer

March 22, 2004  
Date

Kelli D. Buscher, P.E.  
Team Leader

March 22, 2004  
Date

**ATTACHMENT 3**  
**Discharge Monitoring Report Data Including Instream Monitoring Sites**



QTR/FALL	DMR Date	Effluent Arsenic Total Recoverable Dy Max. Weekly Limit 3.9	Effluent Cadmium Total Recoverable 30D Avg. Weekly	Effluent Chromium Dy Max. Weekly	Effluent Chromium Total Recoverable 30D Avg. Weekly	Effluent Chromium Dy Max. Weekly	Effluent Copper Total Recoverable Dy Max. Weekly Limit 3.9	Effluent Copper Total Recoverable Dy Max. Weekly Limit 3.9	Effluent Cyanide WAO 30D Avg. Weekly Limit 3.9	Effluent Cyanide WAO Dy Max. Weekly Limit 3.9	Effluent Flow Rate Dy Max. MGD	Effluent Flow Rate Dy Min. MGD	Effluent Solids 30D Avg. mg/L	Effluent Solids Dy Max. mg/L
001A	08/31/02	1.503	0.084	0	0	0	0.827	0.916	1.182	0.628	3.88	2.272	1127	1127
001A	08/31/02	0.984	0	0	0	0	1.338	1.947	0.46	0.628	3.88	3.202	1407	1474
001A	08/31/02	1.522	0	0	0	0	1.078	1.631	0.375	0.559	4.904	0	1128	1164
001A	07/31/02	1.773	0	0	0	0	0.88	1.263	1.746	3.272	3.677	2.09	1182	1261
001A	08/31/02	0.985	0	0	0	0	0.838	0.975	1.698	3.378	4.456	0.508	1182	1215
001A	10/29/02	2.288	0	0	0	0	1.241	1.571	0.28	0.745	4.456	3.165	1180	1272
001A	10/31/02	0.828	0	0	0	0	0.572	0.635	0.788	1.019	3.288	2.457	1180	1178
001A	11/30/02	1.218	0	0	0	0	0.572	0.635	0.788	1.019	3.288	2.457	1180	1178
001A	12/31/02	0.845	0	0	0	0	0.456	0.556	0.895	1.092	2.876	1.765	1230	1288
001A	02/29/03	1.324	0	0	0	0	0.683	0.797	0.707	1.085	2.73	1.802	1230	1288
001A	03/31/03	0.826	0	0	0	0	0.389	0.478	0.891	2.098	2.573	0.738	1077	1124
001A	04/30/03	0.85	0	0	0	0	0.395	0.478	0.898	1.215	2.424	0.459	1101	1113
001A	05/31/03	1.288	0	0	0	0	0.646	0.825	2.184	1.059	2.85	1.793	1151	1215
001A	06/30/03	1.342	0	0	0	0	0.889	1.005	2.827	2.827	3.848	1.598	1255	1329
001A	07/31/03	1.551	0	0	0	0	0.824	1.078	0.446	0	3.659	3.166	1198	1198
001A	08/31/03	3.182	0	0	0	0	0.548	0.642	0.147	0.434	3.655	3.168	1198	1211
001A	08/31/03	4.87	0	0	0	0	0.673	0.829	0.446	0.888	3.655	3.341	1182	1182
001A	10/31/03	3.462	0	0	0	0	0.673	0.829	0.446	0.888	3.655	3.341	1182	1182
001A	11/30/03	2.781	0	0	0	0	0.551	0.748	0.034	0.241	3.413	3.034	1087	1187
001A	12/31/03	1.808	0	0	0	0	0.515	0.637	0.054	0	2.87	2.577	1028	1078
001A	01/31/04	1.828	0	0	0	0	0.537	0.661	0.054	0.255	2.845	2.511	1145	1190
001A	02/29/04	1.221	0	0	0	0	0.434	0.485	0.138	0.225	2.463	2.235	1151	1201
001A	03/31/04	1.02	0	0	0	0	0.409	0.488	0.138	0.278	2.44	2.235	1151	1201
001A	04/30/04	1.25	0	0	0	0	0.409	0.488	0.138	0.278	2.44	2.235	1151	1201
001A	05/31/04	1.38	0	0	0	0	0.511	0.595	0.08	0.45	3.154	2.802	1224	1261
001A	06/30/04	1.27	0	0	0	0	0.511	0.595	0.08	0.45	3.154	2.802	1171	1255
001A	07/31/04	1.97	0	0	0	0	0.83	0.858	0.08	0.45	3.17	2.241	1184	1214
001A	08/31/04	2.8	0	0	0	0	0.416	0.555	0	0	3.17	2.41	1184	1214
001A	09/30/04	1.32	0	0	0	0	0.416	0.555	0	0	3.17	2.41	1184	1214
001A	10/31/04	1.4	0	0	0	0	0.405	0.514	0.397	0.511	3.17	2.241	1184	1214
001A	11/30/04	1.86	0	0	0	0	0.398	0.392	0.396	0.396	2.89	2.16	1185	1208
001A	12/31/04	1.94	0	0	0	0	0.244	0.287	0.045	0.297	1.1	0.73	1141.3	1122
001A	01/31/05	0.91	0	0	0	0	0.121	0.138	0.045	0.297	1.1	0.73	1141.3	1122
001A	02/28/05	0.46	0	0	0	0	0.108	0.16	0.131	0.17	1.12	0.73	1282.5	1280
001A	03/31/05	0.51	0	0	0	0	0.091	0.131	0.131	0.287	1.12	0.73	1282.5	1280
001A	04/30/05	0.46	0	0	0	0	0.091	0.131	0.131	0.287	1.12	0.73	1282.5	1280
001A	05/31/05	0.57	0	0	0	0	0.135	0.175	0.029	0.146	1.16	0.81	1184.6	1248
001A	06/30/05	0.82	0	0	0	0	0.244	0.374	0	0	1.88	0.98	1248.5	1293
001A	07/31/05	0.88	0	0	0	0	0.289	0.388	0	0	1.94	1.34	1285.5	1279
001A	08/31/05	0.88	0	0	0	0	0.289	0.388	0	0	1.94	1.34	1285.5	1279
001A	09/30/05	1.08	0	0	0	0	0.449	0.478	0	0	2.83	1.97	1139.5	1178
001A	10/31/05	1.01	0	0	0	0	0.578	0.723	0	0	3.15	1.78	1122	1277
001A	11/30/05	0.88	0	0	0	0	0.342	0.465	0	0	2.98	1.94	1182	1205
001A	12/31/05	1	0	0	0	0	0.338	0.383	0	0	2.34	1.98	1171	1241
001A	01/31/06	0.71	0	0	0	0	0.128	0.175	0	0	1.48	1.48	1127.2	1161
001A	02/28/06	0.75	0	0	0	0	0.141	0.231	0	0	1.8	1.32	1258.8	1283
001A	03/31/06	0.53	0	0	0	0	0.114	0.315	0	0	1.38	1.38	1304	1304
001A	04/30/06	0.481	0	0	0	0	0.128	0.232	0	0	2.3	1.58	1158.4	1257
001A	05/31/06	0.575	0	0	0	0	0.128	0.232	0	0	2.416	1.721	1237	1339
001A	06/30/06	0.942	0	0	0	0	0.227	0.287	0	0	2.813	2.851	1197	1283
001A	07/31/06	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	08/31/06	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	09/30/06	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	10/31/06	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	11/30/06	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	12/31/06	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	01/31/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	02/28/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	03/31/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	04/30/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	05/31/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	06/30/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	07/31/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	08/31/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	09/30/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	10/31/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	11/30/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	12/31/07	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	01/31/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	02/28/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	03/31/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	04/30/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	05/31/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	06/30/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	07/31/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	08/31/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	09/30/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	10/31/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	11/30/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	12/31/08	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	01/31/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	02/28/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	03/31/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	04/30/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	05/31/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	06/30/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	07/31/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	08/31/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	09/30/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	10/31/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	1178	1338
001A	11/30/09	0.28	0	0	0	0	0.207	0.48	0	0	2.181	0.651	117	

OUTFALL	Date	Effluent Lead Recoverable Avg. Recovery Limit	Total Recoverable By Max. Recovery Limit	Effluent Mercury Total Recoverable 300 Avg. (Recovery Limit 0.031)	Effluent Mercury Total Recoverable By Max. Recovery Limit 0.031	Effluent Nickel Total Recoverable, 300 Max. Recovery	Effluent Nickel, Total Recoverable, By Max. Recovery	Effluent DQG Value	Effluent P-1 Max. 500 Limit 8.5	Effluent P-1 Min. 50 Limit 0.5	Effluent Selenium Total Recoverable 300 Avg. Recovery Limit	Effluent Selenium Total Recoverable 300 Avg. Upl. Limit	Effluent Selenium Total Recoverable 300 Avg. Upl. Limit	Effluent Selenium Total Recoverable 300 Avg. Upl. Limit
001A	08/31/88	0	0	0	0	0	0	0	8.91	7.98				
001A	08/31/89	0	0	0	0	0	0	0						0.007
001A	07/31/89	0	0	0	0	0	0	0						0.005
001A	08/31/89	0.011	0.028	0	0	0	0	0	8.4	7.75				0.005
001A	08/31/89	0.003	0.003	0	0	0	0	0	8.88	8.16				0.005
001A	10/31/88	0.007	0.028	0	0	0.283	0.283	0	8.27	7.66				0.005
001A	11/30/88	0.013	0.06	0	0	0	0	0	8.31	7.72				0.005
001A	11/30/88	0.017	0.045	0	0	0	0	0	8.32	7.79				0.005
001A	12/31/88	0.008	0.038	0	0	0	0	0	8.49	7.02				0.005
001A	01/31/89	0.04	0.04	0	0	0	0	0	8.97	7.52				0.005
001A	02/29/90	0	0	0	0	0	0	0	8.46	8.1				0.005
001A	03/31/90	0	0	0	0	0	0	0	8.58	8.95				0.005
001A	04/30/90	0	0	0	0	0	0	0	8.26	8.95				0.005
001A	05/31/90	0	0	0	0	0	0	0	8.2	7.89				0.005
001A	06/30/90	0	0	0	0	0	0	0	8.08	7.27				0.005
001A	07/31/90	0	0	0	0	0.387	0.387	0	8.28	7.6				0.005
001A	08/31/90	0	0	0	0	0	0	0	8.31	7.6				0.005
001A	08/30/90	0	0	0	0	0.128	0.128	0	8.05	7.28				0.005
001A	10/31/90	0.005	0.024	0	0	0.232	0.232	0	8.08	7.5				0.005
001A	11/30/90	0.011	0.043	0	0	0.239	0.239	0	8.28	7.43				0.005
001A	12/31/90	0.014	0.043	0	0	0.098	0.098	0	8.2	7.06				0.005
001A	01/31/91	0	0	0	0	0.181	0.181	0	8.18	7.88				0.005
001A	02/28/91	0	0	0	0	0.122	0.122	0	8.17	7.88				0.005
001A	03/31/91	0	0	0	0	0.094	0.094	0	8.06	7.87				0.005
001A	04/30/91	0.004	0.022	0	0	0	0	0	8.27	7.89				0.005
001A	05/31/91	0	0	0	0	0	0	0	8.27	7.83				0.005
001A	06/30/91	0	0	0	0	0	0	0	7.97	7.97				0.005
001A	07/31/91	0.022	0.036	0	0	0	0	0	7.95	7.15				0.005
001A	08/31/91	0.015	0.036	0	0	0	0	0	8.3	7.26				0.005
001A	09/30/91	0.021	0.042	0	0	0.105	0.105	0	8.04	7.62				0.005
001A	10/31/91	0	0	0	0	0	0	0	7.99	7.54				0.005
001A	11/30/91	0	0	0	0	0.11	0.11	0	7.8	7.44				0.005
001A	12/31/91	0	0	0	0	0.098	0.098	0	8.31	7.4				0.005
001A	01/31/92	0	0	0	0	0	0	0	8.37	8.09				0.005
001A	02/28/92	0	0	0	0	0	0	0	8.27	8.1				0.005
001A	03/31/92	0	0	0	0	0	0	0	8.35	8.21				0.005
001A	04/30/92	0	0	0	0	0.054	0.054	0	8.42	8.06				0.005
001A	05/31/92	0	0	0	0	0	0	0	8.27	7.74				0.005
001A	06/30/92	0	0	0	0	0	0	0	8.23	7.79				0.005
001A	07/31/92	0	0	0	0	0	0	0	8.33	7.9				0.005
001A	08/31/92	0	0	0	0	0.602	0.602	0	8.33	7.56				0.005
001A	09/30/92	0	0	0	0	0.34	0.34	0	8.24	7.89				0.005
001A	10/31/92	0.005	0.025	0	0	0	0	0	8.53	7.89				0.005
001A	11/30/92	0	0	0	0	0	0	0	8.56	7.94				0.005
001A	12/31/92	0	0	0	0	0	0	0	8.26	7.66				0.005
001A	01/31/93	0	0	0	0	0	0	0	8.28	7.66				0.005
001A	02/28/93	0	0	0	0	0	0	0	7.82	7.65				0.005
001A	03/31/93	0	0	0	0	0	0	0	7.94	7.5				0.005
001A	04/30/93	0	0	0	0	0	0	0	8.25	7.55				0.005
001A	05/31/93	0	0	0	0	0	0	0	8.25	7.55				0.005
001A	06/30/93	0.004	0.015	0	0	0	0	0	8.25	7.17				0.005
001A	07/31/93	0.015	0.025	0	0	0	0	0	8.18	7.68				0.005
001A	08/31/93	0	0	0	0	0	0	0	8.23	7.78				0.005
001A	09/30/93	0	0	0	0	0.1	0.1	0	7.95	7.41				0.005
001A	10/31/93	0.002	0.008	0	0	0	0	0	8.05	7.46				0.005
001A	11/30/93	0	0	0	0	0	0	0	8.25	7.62				0.005
001A	12/31/93	0.001	0.007	0	0	0.134	0.134	0	8.14	7.62				0.005
001A	01/31/94	0	0	0	0	0	0	0	8.35	7.71				0.005
001A	02/28/94	0	0	0	0	0	0	0	8.16	7.31				0.005
001A	03/31/94	0.001	0.006	0	0	0.084	0.084	0	8.24	7.97				0.005

OUTFALL#	DMR Date	Effluent Selenium Total Recoverable Dy Max. 100%	Effluent Silver Total Recoverable 300 Dy Max. 100%	Effluent Silver Total Recoverable Dy Max. 100%	Effluent Temperature 300 Avg. 100%	Effluent Temperature 300 Max. 100%	Effluent TSS 300 Avg. 100%	Effluent TSS 300 Max. 100%	Effluent Zn Total Recoverable 300 Avg. 100%	Effluent Zn Total Recoverable Dy Max. 100%
001A	04/03/08	0.01	0	0	71.1	73.8	2.2	3.4	0	0
001A	05/01/08	0.007	0	0	70.4	76.6	4.3	5.6	0	0
001A	05/03/08	0.005	0	0	78	86	3	4.6	0	0
001A	07/31/89	0.005	0	0	79.2	83.2	3.4	4.5	0	0
001A	08/31/89	0.007	0	0	77.3	79.9	2.6	3.5	0	0
001A	09/30/89	0.006	0	0	77.3	83.2	2.6	4.1	0	0
001A	10/29/89	0.005	0	0	76.8	79.7	2.8	3.5	0	0
001A	10/31/89	0.005	0	0	72.4	76	2.8	3.5	0	0
001A	11/03/89	0.005	0	0	71.8	74.7	3	4.4	0	0
001A	12/31/89	0.005	0	0	69.5	73.3	3.3	4.4	0	0
001A	01/31/00	0.005	0	0	67.8	73	2.8	4.5	0	0
001A	02/28/00	0.005	0	0	71.4	74.4	2.7	3.9	0	0
001A	03/31/00	0.005	0.008	0.004	42.2	48.8	1.1	2.1	0	0
001A	04/30/00	0.005	0	0	40.2	47.1	0.9	1.3	0	0
001A	05/31/00	0.005	0	0	72.3	74.8	1.5	5.9	0	0
001A	06/29/00	0	0	0	70.9	78.3	3.3	7.2	0	0
001A	07/31/00	0	0	0	78.7	79.7	2.9	4.4	0	0
001A	08/31/00	0	0	0	78.2	80.8	3.1	4.3	0	0
001A	09/30/00	0	0	0	74.2	77.5	4	5	0	0
001A	10/31/00	0	0	0	69.8	73.7	3.2	4.6	0	0
001A	11/30/00	0	0	0	63.4	72.1	3.1	1.9	0	0
001A	12/31/00	0	0	0	60.7	64.6	3.6	5	0	0
001A	01/31/01	0	0	0	61.6	63.9	3.6	6.6	0	0
001A	02/28/01	0	0	0	61.6	64.2	3.2	4.1	0	0
001A	03/31/01	0	0	0	62.8	64.3	3.5	5.3	0	0
001A	04/30/01	0	0	0	65.4	68.8	4.1	4.8	0	0
001A	05/31/01	0	0	0	67.7	70.4	3.8	5.4	0	0
001A	06/30/01	0	0	0	70.1	76.7	3.1	5.4	0	0
001A	07/31/01	0	0	0	78	77.5	2.1	3.5	0	0
001A	08/31/01	0	0	0	74.5	77.7	2	3.2	0	0
001A	09/30/01	0	0	0	69.5	73.8	4	4	0	0
001A	10/31/01	0	0	0	63.9	70.3	2.4	3.6	0	0
001A	11/30/01	0	0	0	59.4	63.7	1.9	2.6	0	0
001A	12/31/01	0	0	0	56.3	57.1	2.5	4.1	0	0
001A	01/31/02	0	0	0	56.8	59.3	1.5	3.6	0	0
001A	02/28/02	0	0	0	56.8	62.2	1.3	3	0	0
001A	03/31/02	0	0	0	56.6	72	1.3	3.4	0	0
001A	04/30/02	0	0	0	60.5	63.7	1.3	2.4	0	0
001A	05/31/02	0	0	0	61.6	68.2	1.3	2.8	0	0
001A	06/30/02	0	0	0	71.2	73.8	0.9	1.9	0	0
001A	07/31/02	0	0	0	67.1	72.1	1.2	1.9	0	0
001A	08/31/02	0	0	0	70.4	80	1.2	2.8	0	0
001A	09/30/02	0	0	0	65	68.4	1.3	2.4	0	0
001A	10/31/02	0	0	0	65.5	68.8	1	2.4	0	0
001A	11/03/02	0	0	0	61.5	64.6	0.9	1.6	0	0
001A	12/31/02	0	0	0	61.3	64	0.8	1.8	0	0
001A	01/31/03	0	0	0	61.7	64	0.7	1.4	0	0
001A	02/28/03	0	0	0	51.2	53	0.6	1.7	0	0
001A	03/31/03	0	0	0	51.4	55	0.7	1.5	0	0
001A	04/30/03	0	0	0	56.7	62	0.6	2.5	0	0
001A	05/31/03	0	0	0	59.8	71	0.8	1.7	0	0
001A	06/30/03	0	0	0	67.8	71	0.8	1.4	0	0
001A	07/31/03	0	0	0	65	72.5	0.6	1.4	0	0
001A	08/31/03	0	0	0	68.4	71.1	0.6	1.4	0	0
001A	09/30/03	0	0	0	68	68.2	0.7	1.4	0	0
001A	10/31/03	0	0	0	65.4	68.5	0.6	1.8	0	0
001A	11/30/03	0	0	0	62.7	64.8	0.5	1.8	0	0
001A	12/31/03	0	0	0	62.2	64.3	0.4	1.9	0	0
001A	01/31/04	0	0	0	61.5	65.3	0.4	1.5	0	0
001A	02/28/04	0	0	0	62.2	65.3	0.5	1.5	0	0
001A	03/31/04	0	0	0	63.6	69.4	0.5	1	0	0

001 WET	OUTFALL+	DMR Date	Downstream Flow Rate, Wkly Min, CFS	Effluent Flow Rate, Wkly Min, CFS	Effluent WET - Chronic 7D Cdaph, Diy Max, pass/fail, Limit: 0	Effluent WET - Chronic 7D Fathead, Diy Max, pass/fail, Limit: 0
SD0000043	001W	03/31/99			Pass	Pass
SD0000043	001W	06/30/99	5.57	84.5	Pass	Pass
SD0000043	001W	09/30/99	22.7	4.86	Fail	Pass
SD0000043	001W	12/31/99	13.26	4.96	Fail	Pass
SD0000043	001W	03/31/00	3.89	7.46	Pass	Pass
SD0000043	001W	06/30/00	4.3	34.48	Pass	Pass
SD0000043	001W	09/30/00	7.94	4.79	Fail	Pass
SD0000043	001W	12/31/00	8.07	4.83	Pass	Pass
SD0000043	001W	03/31/01	6.77	3.65	Pass	Pass
SD0000043	001W	06/30/01	19.97	4.5	Pass	Pass
SD0000043	001W	09/30/01	13.89	5.12	Pass	Pass
SD0000043	001W	12/31/01	8.44	3.86	Pass	Pass
SD0000043	001W	03/31/02	5.02	1.54	Pass	Pass
SD0000043	001W	06/30/02	7.66	1.35	Pass	Pass
SD0000043	001W	09/30/02	6.4	3.69	Pass	Pass
SD0000043	001W	12/31/02	8.46	3.74	Pass	Pass
SD0000043	001W	03/31/03	6.39	2.78	Pass	Pass
SD0000043	001W	06/30/03	28.86	3.57	Pass	Pass
SD0000043	001W	09/30/03	9.09	1.6	Pass	Pass
SD0000043	001W	12/31/03	6.79	1.52	Pass	Pass
SD0000043	001W	03/31/04	5.3	1.1	Pass	Pass

MTL	OUTFALL	DMN Date	Effluent Arsenic Total Recoverable DY Max UGL	Effluent Cadmium Total Recoverable DY Max UGL	Effluent Chromium Total Recoverable DY Max UGL	Effluent Copper Total Recoverable DY Max UGL	Effluent Oxide Total DY Max UGL	Effluent Oxide WADY DY Max UGL	Effluent Lead Total Recoverable DY Max UGL	Effluent Mercury Total Recoverable DY Max UGL	Effluent Nickel Total Recoverable DY Max UGL	Effluent Selenium Total Recoverable DY Max UGL	Effluent Silver Total Recoverable DY Max UGL	Effluent Zinc Total Recoverable DY Max UGL
SD0000043	MTL1	06/02/99												
SD0000043	MTL1	06/02/99	6	0.2	0.6	1	10	20	232					20
SD0000043	MTL1	06/02/99												
SD0000043	MTL1	06/02/99	5	1	1	5	0	1	284					50
SD0000043	MTL1	10/28/88	459	1	1	5	190	1	557					50
SD0000043	MTL1	11/02/89		1	1	5	20	20	263					50
SD0000043	MTL1	12/31/89		1	1	5	20	20	267					50
SD0000043	MTL1	07/31/00		1	1	5	20	20	258					73
SD0000043	MTL1	02/28/00		1	3	5	20	20	277					50
SD0000043	MTL1	03/31/00		1	1	5	20	20	282					50
SD0000043	MTL1	04/30/00		1	1	5	20	20	234					50
SD0000043	MTL1	05/31/00		1	1	5	20	20	255					50
SD0000043	MTL1	06/30/00		1	1	5	20	20	158					50
SD0000043	MTL1	07/31/00		1	1	5	20	20	224					50
SD0000043	MTL1	08/31/00		1	1	5	20	20	228					50
SD0000043	MTL1	09/30/00		1	1	5	20	20	246					50
SD0000043	MTL1	10/31/00		1	1	5	20	20	245					50
SD0000043	MTL1	11/30/00		1	1	5	20	20	281					50
SD0000043	MTL1	12/31/00		1	1	5	20	20	298					50
SD0000043	MTL1	01/31/01		1	1	5	20	20	245					50
SD0000043	MTL1	02/28/01		1	1	5	20	20	246					50
SD0000043	MTL1	03/31/01		1	1	5	20	20	238					50
SD0000043	MTL1	04/30/01		1	1	5	10	10	241					50
SD0000043	MTL1	05/31/01		1	1	5	10	10	230					50
SD0000043	MTL1	06/30/01		1	1	5	10	10	130					50
SD0000043	MTL1	07/31/01		1	1	5	10	10	206					50
SD0000043	MTL1	08/30/01		1	1	5	10	10	231					50
SD0000043	MTL1	09/30/01		1	1	5	10	10	281					50
SD0000043	MTL1	10/31/01		1	1	5	10	10	281					50
SD0000043	MTL1	11/30/01		1	1	5	10	10	245					50
SD0000043	MTL1	12/31/01		1	1	5	10	10	222					50
SD0000043	MTL1	01/31/02		1	1	5	10	10	240					50
SD0000043	MTL1	02/28/02		1	1	5	10	10	231					50
SD0000043	MTL1	03/31/02		1	1	5	10	10	235					50
SD0000043	MTL1	04/30/02		1	1	5	10	10	241					50
SD0000043	MTL1	05/31/02		1	1	5	10	10	213					50
SD0000043	MTL1	06/30/02		1	1	5	10	10	238					50
SD0000043	MTL1	07/31/02		1	1	5	10	10	235					50
SD0000043	MTL1	08/31/02		1	1	5	10	10	240					50
SD0000043	MTL1	09/30/02		1	1	5	10	10	279					50
SD0000043	MTL1	10/31/02		1	1	5	10	10	262					50
SD0000043	MTL1	11/30/02		1	1	5	10	10	256					50
SD0000043	MTL1	12/31/02		1	1	5	10	10	275					50
SD0000043	MTL1	01/31/03		1	1	5	10	10	281					50
SD0000043	MTL1	02/28/03		1	1	5	10	10	272					50
SD0000043	MTL1	03/31/03		1	1	5	10	10	270					50
SD0000043	MTL1	04/30/03		1	1	5	10	10	178					50
SD0000043	MTL1	05/31/03		1	1	5	10	10	164					50
SD0000043	MTL1	06/30/03		1	1	5	10	10	188					50
SD0000043	MTL1	07/31/03		1	1	5	10	10	216					50
SD0000043	MTL1	08/31/03		1	1	5	10	10	235					50
SD0000043	MTL1	09/30/03		1	1	5	10	10	242					50
SD0000043	MTL1	10/31/03		1	1	5	10	10	248					50
SD0000043	MTL1	11/30/03		1	1	5	10	10	256					50
SD0000043	MTL1	01/31/04		1	1	5	10	10	254.6					50
SD0000043	MTL1	02/28/04		1	1	5	10	10	256					50
SD0000043	MTL1	03/31/04		1	1	5	10	10	250					50
SD0000043	MTL1	03/31/04		1	1	5	10	10	254					50

MT2	OUTFALL#	DWM Date	Effluent Arsenic Total Recoverable Dy Max ug/L	Effluent Cadmium Total Recoverable Dy Max ug/L	Effluent Chromium Total Recoverable Dy Max ug/L	Effluent Copper Total Recoverable Dy Max ug/L	Effluent Cyanide Total Dy Max ug/L	Effluent Oxide WAO Dy Max ug/L	Effluent Iron Total Recoverable Dy Max ug/L	Effluent Lead Total Recoverable Dy Max ug/L	Effluent Mercury Total Recoverable Dy Max ug/L	Effluent Manganese Total Recoverable Dy Max ug/L	Effluent Selenium Total Recoverable Dy Max ug/L	Effluent Silver Total Recoverable Dy Max ug/L	Effluent Zinc Total Recoverable Dy Max ug/L
S0000004	MT2	06/11/03													
S0000004	MT2	06/30/03													
S0000004	MT2	07/31/03								0.6					
S0000004	MT2	08/31/03									0.2				
S0000004	MT2	09/30/03	21		1	8	338	28	594	1	0.2	6	5	1	50
S0000004	MT2	10/31/03	12	0.2	0.1	6	10	50	373	1	0.2	6	5	1	50
S0000004	MT2	11/30/03	20		1	7	103	31	587	1	0.2	6	5	1	50
S0000004	MT2	12/31/03	17		2	10	67	20	747	1	0.2	5	5	1	50
S0000004	MT2	01/31/04	27		1	11	86	14	704	1	0.2	5	5	1	50
S0000004	MT2	02/28/04	22		3	44	66	21	596	1	0.2	5	5	1	50
S0000004	MT2	03/31/04	22		1	8	124	28	848	1	0.2	5	5	1	50
S0000004	MT2	04/30/04	23		1	5	70	29	617	1	0.2	5	5	1	50
S0000004	MT2	05/31/04	28		1	6	46	20	443	1	0.2	5	5	1	50
S0000004	MT2	06/30/04	8		2	6	20	20	328	1	0.2	5	5	1	50
S0000004	MT2	07/31/04	14		1	5	20	20	463	1	0.2	5	5	1	50
S0000004	MT2	08/30/04	21		1	6	20	20	579	1	0.2	5	5	1	50
S0000004	MT2	09/30/04	21		1	5	22	20	692	1	0.2	5	5	1	50
S0000004	MT2	10/31/04	42		1	5	20	20	741	1	0.2	5	5	1	50
S0000004	MT2	11/30/04	46		1	5	20	20	650	1	0.2	5	5	1	50
S0000004	MT2	12/31/04	46		1	5	20	20	708	1	0.2	5	5	1	50
S0000004	MT2	01/31/05	38		1	5	20	20	686	1	0.2	5	5	1	50
S0000004	MT2	02/28/05	48		1	11	88	20	888	1	0.2	5	5	1	50
S0000004	MT2	03/31/05	23.8		1	5	78	20	657	1	0.2	5	5	1	50
S0000004	MT2	04/30/05	22		1	8	68	25	647	1	0.2	5	5	1	50
S0000004	MT2	05/31/05	11		1	5	10	10	487	1	0.2	5	5	1	50
S0000004	MT2	06/30/05	12		1	6	13	10	634	1	0.2	5	5	1	50
S0000004	MT2	07/31/05	32		1	6	23	10	697	1	0.2	5	5	1	50
S0000004	MT2	08/31/05	44		1	6	34	10	687	1	0.2	5	5	1	50
S0000004	MT2	09/30/05	27		1	5	27	10	705	1	0.2	5	5	1	50
S0000004	MT2	10/31/05	38		1	7.5	62.6	10	671	1	0.2	5	5	1	50
S0000004	MT2	11/30/05	41		1	6	41	10	631	1	0.2	5	5	1	50
S0000004	MT2	12/31/05	28		3	5	27	10	528	1	0.2	5	5	1	50
S0000004	MT2	01/31/06	36		1	7	96	10	559	1	0.2	5	5	1	50
S0000004	MT2	02/28/06	23.8		1	6	198	16	435	1	0.2	5	5	1	50
S0000004	MT2	03/31/06	21		1	5	100	10	525.5	1	0.2	5	5	1	50
S0000004	MT2	04/30/06	18		2	6	96	38	435	1	0.2	5	5	1	50
S0000004	MT2	05/31/06	13		1	5	10	10	404	1	0.2	5	5	1	50
S0000004	MT2	06/30/06	6		1	5	13	10	635	1	0.2	5	5	1	50
S0000004	MT2	07/31/06	29		2	10	17	10	748	1	0.2	5	5	1	50
S0000004	MT2	08/31/06	18		1	7	16	10	841	1	0.2	5	5	1	50
S0000004	MT2	09/30/06	25.5		1	8	16	10	819	1	0.2	5	5	1	50
S0000004	MT2	10/31/06	41		1	6	41	10	671	1	0.2	5	5	1	50
S0000004	MT2	11/30/06	28		1	5	27	10	528	1	0.2	5	5	1	50
S0000004	MT2	12/31/06	36		1	7	96	10	559	1	0.2	5	5	1	50
S0000004	MT2	01/31/07	23.8		1	6	198	16	435	1	0.2	5	5	1	50
S0000004	MT2	02/28/07	21		1	5	100	10	525.5	1	0.2	5	5	1	50
S0000004	MT2	03/31/07	18		2	6	96	38	435	1	0.2	5	5	1	50
S0000004	MT2	04/30/07	13		1	5	10	10	404	1	0.2	5	5	1	50
S0000004	MT2	05/31/07	6		1	5	13	10	635	1	0.2	5	5	1	50
S0000004	MT2	06/30/07	29		2	10	17	10	748	1	0.2	5	5	1	50
S0000004	MT2	07/31/07	18		1	7	16	10	841	1	0.2	5	5	1	50
S0000004	MT2	08/31/07	25.5		1	8	16	10	819	1	0.2	5	5	1	50
S0000004	MT2	09/30/07	41		1	6	41	10	671	1	0.2	5	5	1	50
S0000004	MT2	10/31/07	28		3	5	27	10	528	1	0.2	5	5	1	50
S0000004	MT2	11/30/07	36		1	7	96	10	559	1	0.2	5	5	1	50
S0000004	MT2	12/31/07	23.8		1	6	198	16	435	1	0.2	5	5	1	50
S0000004	MT2	01/31/08	21		1	5	100	10	525.5	1	0.2	5	5	1	50
S0000004	MT2	02/28/08	18		2	6	96	38	435	1	0.2	5	5	1	50
S0000004	MT2	03/31/08	13		1	5	10	10	404	1	0.2	5	5	1	50
S0000004	MT2	04/30/08	6		1	5	13	10	635	1	0.2	5	5	1	50
S0000004	MT2	05/31/08	29		2	10	17	10	748	1	0.2	5	5	1	50
S0000004	MT2	06/30/08	18		1	7	16	10	841	1	0.2	5	5	1	50
S0000004	MT2	07/31/08	25.5		1	8	16	10	819	1	0.2	5	5	1	50
S0000004	MT2	08/31/08	41		1	6	41	10	671	1	0.2	5	5	1	50
S0000004	MT2	09/30/08	28		3	5	27	10	528	1	0.2	5	5	1	50
S0000004	MT2	10/31/08	36		1	7	96	10	559	1	0.2	5	5	1	50
S0000004	MT2	11/30/08	23.8		1	6	198	16	435	1	0.2	5	5	1	50
S0000004	MT2	12/31/08	21		1	5	100	10	525.5	1	0.2	5	5	1	50
S0000004	MT2	01/31/09	18		2	6	96	38	435	1	0.2	5	5	1	50
S0000004	MT2	02/28/09	13		1	5	10	10	404	1	0.2	5	5	1	50
S0000004	MT2	03/31/09	6		1	5	13	10	635	1	0.2	5	5	1	50
S0000004	MT2	04/30/09	29		2	10	17	10	748	1	0.2	5	5	1	50
S0000004	MT2	05/31/09	18		1	7	16	10	841	1	0.2	5	5	1	50
S0000004	MT2	06/30/09	25.5		1	8	16	10	819	1	0.2	5	5	1	50
S0000004	MT2	07/31/09	41		1	6	41	10	671	1	0.2	5	5	1	50
S0000004	MT2	08/31/09	28		3	5	27	10	528	1	0.2	5	5	1	50
S0000004	MT2	09/30/09	36		1	7	96	10	559	1	0.2	5	5	1	50
S0000004	MT2	10/31/09	23.8		1	6	198	16	435	1	0.2	5	5	1	50
S0000004	MT2	11/30/09	21		1	5	100	10	525.5	1	0.2	5	5	1	50
S0000004	MT2	12/31/09	18		2	6	96	38	435	1	0.2	5	5	1	50
S0000004	MT2	01/31/10	13		1	5	10	10	404	1	0.2	5	5	1	50
S0000004	MT2	02/28/10	6		1	5	13	10	635	1	0.2	5	5	1	50
S0000004	MT2	03/31/10	29		2	10	17	10	748	1	0.2	5	5	1	50
S0000004	MT2	04/30/10	18		1	7	16	10	841	1	0.2	5	5	1	50
S0000004	MT2	05/31/10	25.5		1	8	16	10	819	1	0.2	5	5	1	50
S0000004	MT2	06/30/10	41		1	6	41	10	671	1	0.2	5	5	1	50
S0000004	MT2	07/31/10	28		3	5	27	10	528	1	0.2	5	5	1	50
S0000004	MT2	08/31/10	36		1	7	96	10	559	1	0.2	5	5	1	50
S0000004	MT2	09/30/10	23.8		1	6	198	16	435	1	0.2	5	5	1	50
S0000004	MT2	10/31/10	21		1	5	100	10	525.5	1	0.2	5	5	1	50
S0000004	MT2	11/30/10	18		2	6	96	38	435	1	0.2	5	5	1	50
S0000004	MT2	12/31/10	13		1	5	10	10	404	1	0.2	5	5	1	50
S0000004	MT2	01/31/11	6		1	5	13	10	635	1	0.2	5	5	1	50
S0000004	MT2	02/28/11	29		2	10	17	10	748	1	0.2	5	5	1	50
S0000004	MT2	03/31/11	18		1	7	16	10	841	1	0.2	5	5	1	50
S0000004	MT2	04/30/11	25.5		1	8	16	10	819	1	0.2	5	5	1	50
S0000004	MT2	05/31/11	41		1	6	41	10	671	1	0.2	5	5	1	50
S0000004	MT2	06/30/11	28		3	5	27	10	528	1	0.2	5	5	1	50
S0000004	MT2	07/31/11	36		1	7	96	10	559	1	0.2	5	5	1	50
S0000004	MT2	08/31/11	23.8		1	6	198	16	435	1	0.2	5	5		