NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 17, 2010

Richard N. Mohr, General Manager
P.O. Box 7
Chino Mines Company
210 Cortez St.
Hurley, NM 88043

RE: Discharge Permit Renewal and Modification, Lampbright Leach System, DP-376

Dear Mr. Mohr:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit, DP-376 to Chino Mines Company pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

The Discharge Permit contains terms and conditions that shall be complied with by Chino Mines Company and are enforceable by NMED pursuant to WQCC 20.6.2.3104, WQA, NMSA 1978 §74-6-5 and §74-6-10. Issuance of this Discharge Permit does not relieve Chino Mines Company of its responsibility to comply with the WQA, WQCC Regulations, any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

Pursuant to 20.6.2.3109.H.4 NMAC, the term of the Discharge Permit shall be five years from the date of issuance and will expire on **June 17, 2015**. You must submit an application for renewal at least 120 days before the permit expiration date.

Sincerely,

William C. Olson, Chief
Ground Water Quality Bureau

WCO:kv

enc:

1) Discharge Permit

cc: Allyson Siwik, GRIP
NMED Silver City Field Office
Mary Ann Menetrey, Program Manager, MECS-GWQB
Charles Thomas, Chief, Mine Reclamation Bureau

GROUND WATER DISCHARGE PERMIT RENEWAL AND MODIFICATION
Lampbright Leach System, DP-376
June 17, 2010

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit, DP-376 to Chino Mines Company (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the Lampbright Leach System into ground and surface water, so as to protect ground and surface water for present and potential future use as domestic and agricultural water supply and other uses and protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of 20.6.2.3109.C NMAC have been met.

Facility Description

The facilities that produce discharges that may move directly or indirectly into ground water include the Main Lampbright and South Lampbright Leach Stockpiles, and the Southwest Lampbright Waste Rock Pile. DP-376 covers approximately 699 acres, including the Main and South Lampbright Leach Stockpiles combined at 554 acres, the Southwest Lampbright Waste Rock Pile at 99 acres; three concrete lined storm water settling ponds, 11 seepage collection trenches with lined wing walls, the Lampbright East Sump, and all associated pipelines conveying pregnant leach solution (PLS) to the Stainless Steel PLS Tank; the Northeast Lampbright Booster Station, Raffinate Booster Tank, and the overflow pipe back to Reservoir 7; Lampbright Sumps 1-4 and the Un-named Sump Extension north of Lampbright Leach Pile; the Stainless Steel PLS Tank, Lined 8 Dam, and Un-lined 8 Dam; and the Lampbright PLS Pipelines. Collectively these facilities are referred to as the Lampbright Leach System.

The Main and South Lampbright Leach Stockpiles are leached through the application of acidic leach solutions to the top and side surfaces. PLS and impacted water is collected in seepage collection trenches, lined wing walls, pump back wells and the Lampbright East Sump and conveyed to the Stainless Steel PLS Tank. During upset conditions overflow from the Stainless Steel PLS Tank discharges into the Lined 8 Dam. Impacted storm water is collected in concrete lined settling ponds and conveyed to Un-lined 8 Dam. Impacted storm water may also discharge to Un-lined 8 Dam via overland flow during rainfall events.

The Main Lampbright and South Lampbright Leach Stockpiles receive ore from the Santa Rita open pit and the Cobre Mine, including Hanover Mountain for leaching. Up to 4,000 tons per day of Lake One material may also be placed on the Main and South Lampbright Leach Stockpiles for leaching. In addition, dewatered sediments from Reservoir 6, Reservoir 7, Lined 8 Dam and Un-lined 8 Dam may be placed on the Main and South Lampbright Leach Stockpiles for leaching. The Southwest Lampbright Waste Rock Pile is used for storage of waste rock only and is not permitted for leaching. In addition, waste rock placed within the corridor between Southwest Lampbright and the South Lampbright Stockpiles shall not be leached.

Discharge Permit Modification Description

The DP-376 permit modification includes relocation of the Lambright PLS pipeline and placement of waste rock within the Lampbright PLS pipeline corridor between the Southwest and South Lambright Stockpiles.

Location of Discharge

The Lampbright Leach System is located approximately 5 miles northeast of Bayard and 4 miles southeast of Hanover in Section 25, 26, 35 and 36, T17S, R12W in Grant County.

Quantity, Quality and Flow Characteristics of the Discharge

The Main Lampbright and South Lampbright Leach Stockpiles are leached with sulfuric acid solution (raffinate) which removes metals from the mined ore as it passes through the stockpiles. In addition to leaching, the Main Lampbright and South Lampbright Leach Stockpiles, and the Southwest Lampbright Waste Rock Pile contain sulfide minerals which, when oxidized, generate acidic solutions. These acidic solutions react with in situ minerals, which produces acid rock drainage (ARD) and associated metals and sulfate contamination. The leachate from ARD and from the leaching process has moved directly or indirectly into surface and ground water.

The regulated discharge under this Discharge Permit includes raffinate and its copper bearing equivalent PLS, stockpiled ore, waste rock, and ARD. The PLS has a TDS concentration of up to 160,000 mg/L. The raffinate, PLS and ARD exceed the water quality standards under WQCC Regulations in Section 20.6.2.3103.A NMAC for arsenic, cadmium, chromium, fluoride and lead; Section 20.6.2.3103.B for chloride, copper, iron, manganese, pH, sulfate, total dissolved solids (TDS) and zinc; and Section 20.6.2.3103.C for aluminum, cobalt, and nickel. The maximum permitted discharge rate of raffinate applied to the Main and South Lampbright leach ore stockpiles shall not exceed 26,494,560 gallons per day.

Characteristics of Ground Water

Ground water generally flows south beneath the Lampbright Leach System towards Lampbright Draw. Depth to ground water below the site ranges from approximately 5 to 125 feet below ground surface. The total dissolved solids concentration in regional ground water in the area of DP-376 is approximately 100 to 600 milligrams per liter.

General

Chino's Discharge Plan for the Lampbright Leach System consists of the Discharge Permit Renewal Application dated January 14, 2009 and the Discharge Permit Modification application dated July 29, 2008. In addition, the Discharge Plan includes applicable information and materials submitted as part of the original discharge plan approved on December 20, 1985, renewed June 25, 1991, renewed and modified on October 30, 1996 and May 14, 2004, and amended on September 25, 1991 and August 11, 2008. The discharge shall be managed in accordance with the Discharge Plan as conditioned by this Discharge Permit.

Pursuant to 20.6.2.3109.E NMAC, NMED reserves the right to modify permit requirements in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated, or the standards of 20.6.2.3103 NMAC are being, or may be, violated at a place of withdrawal of water for present or reasonably forseeable future use due to a discharge regulated under this Discharge Permit. This may include a determination by NMED that operational practices approved under this Discharge Permit are not protective of ground and surface water quality, and that a modification is necessary to protect water quality or abate water pollution. Permit modification may include but is not limited to lining or relining impoundments, changing discharge locations, changing waste and leachate management practices, expanding monitoring requirements, and/or implementing abatement of water pollution.

Issuance of this Discharge Permit does not relieve Chino of its responsibility to comply with all conditions or requriements of the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations such as zoning requirements and nuisance ordinances.

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. Chino Mines Company is discharging effluent or leachate from the Lampbright Leach System so that such effluent or leachate may move directly or indirectly into ground water within the meaning of 20.6.2.3104 NMAC.

2. Chino Mines Company is discharging effluent or leachate from the Lampbright Leach System so that such effluent or leachate may move into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of 20.6.2.3101.A NMAC.

3. The discharge from the Lampbright Leach System is not subject to any of the exemptions of 20.6.2.3105 NMAC.

4. The Water Quality Act requires that determination of a discharger's effect on ground water shall be measured at any place of withdrawal of water for present or reasonably foreseeable future use. NMSA 1978, 74-6-5(E)(3). NMED considers the discharge site covered by DP-376 to be a potential place of withdrawal of water for present or reasonably foreseeable future use. In the future, as part of the permit application process, Chino may present evidence to NMED supporting why some or all of the discharge site is not a place of withdrawal of water for present or reasonably foreseeable future use. If the evidence is presented to NMED, NMED will consider the evidence and any other relevant evidence, and will issue a written determination based thereon.

5. Discharges from the Lampbright Leach System have caused contamination of ground water in excess of the water quality standards of 20.6.2.3103 NMAC.

6. Chino is required to abate ground water contamination pursuant to 20.6.2.3107.A(11) and 3109.E(1) NMAC.

III. PERMIT CONDITIONS

Chino shall comply with the following conditions, which are enforceable by NMED.

OPERATIONS

1. Chino shall conduct the operational requirements set forth below, including investigations, in accordance with the WQCC Regulations at Sections 20.6.2.3106.C and 3107 NMAC to ensure compliance with 20.6.1 and 20.6.2 NMAC.

Stockpile Limits

2. Chino shall not exceed the land surface areas as presented in Figure 2 including: Southwest Lampbright Waste Rock Pile (125 acres initial, 167 acres final), Main Lampbright Leach Stockpile and South Lampbright Leach Stockpile (combined 663 acres initial, 621 acres final), 8 Dam PLS and storm water collection area (28 acres), North Lampbright sumps and storm water control area (20 acres) and the sediment staging area (5 acres). Chino shall request a permit modification from NMED prior to expanding leach stockpile and waste rock pile limits beyond the areas delineated on Figure 2. [20.6.2.3106.C and 3109 NMAC]

Other Leach Material

3. Chino is authorized to place blended ore and Lake One Material, ore from the Cobre Mine including Hanover Mountain, and dewatered sediments from Reservoir 6, Reservoir 7, Lined 8 Dam and Un-lined 8 Dam on the Main Lampbright and South Lampbright Leach Stockpiles. [20.6.2.3106.C NMAC]

4. Chino is authorized to stage sediments removed from Reservoir 6, Reservoir 7, Lined 8 Dam and Un-lined 8 Dam in an approximately 5 acre bermed area located at the northwest corner of the North Lampbright Leach Stockpile. [20.6.2.3106.C NMAC]

Discharge Authorizations

Chino shall manage discharges of leach solutions as follows:

5. *Application of Acidic Leach Solution:* Chino is authorized to discharge a maximum of 26,494,560 gallons per day of raffinate to the Main Lampbright and South Lampbright Leach Stockpiles for the purpose of leaching copper. [20.6.2.3109 NMAC]

6. *Northeast Lampbright Booster Station:* Chino is authorized to operate the Northeast Lampbright Booster Station to collect and transfer raffinate. Raffinate shall be transferred to a stainless steel tank with an operation volume of 400,000 gallons and a design flow of 23,328,000 gallons per day. Raffinate enters from the solution extraction/electrowinning (SX/EW) plant and is discharged to the Main Lampbright or South Lampbright Leach Stockpiles. [20.6.2.3109 NMAC]

7. *Lampbright East Sump:* Chino is authorized to operate the Lampbright East Sump to collect and transfer PLS. PLS shall be collected in a high density polyethylene (HDPE) lined pond with a floating barge pump that transfers PLS to the Stainless Steel PLS Tank or to the top of the Lampbright Leach Pile. The Lampbright East Sump collects PLS at approximately 400-700 gpm. [20.6.2.3109 NMAC]

8. *Southeast Corner of South Lampbright Leach Stockpile:* Pursuant to conclusions in a May 1996 report entitled "Phase III Ground water Flow Modeling for Lampbright Draw", Chino shall not leach side slopes of the southeast corner of the South Lampbright Leach Stockpile as shown on Figure 1. [20.6.2.3109 NMAC]

9. *Stainless Steel PLS Tank:* Chino is authorized to operate the Stainless Steel PLS Tank, under standard operating conditions, to collect and transfer up to 26,494,560 gallons per day of PLS from the Lampbright Leach System to the SX/EW except as described in the Emergency Response Plan revision dated October 7, 2009. When operating the leach system at or near the maximum raffinate discharge rate, the minimum pumping capacity of the Stainless Steel PLS Tank shall be 23,000 gpm. In the event that Chino applies lower flow rates of raffinate, Chino shall maintain a pumping capacity 25 percent greater than the raffinate application rate with a minimum pumping capacity of 5,600 gpm for storm events. [20.6.2.3109 NMAC]

10. *Lined 8 Dam:* The Lined 8 Dam is designed to receive PLS from the Stainless Steel PLS Tank during upset conditions. The Lined 8 Dam has the capacity to contain discharges of PLS at normal operating flows during upset conditions for 34 minutes. The Lined 8 Dam can discharge to Un-lined 8 Dam at an elevation of 6138 feet above mean sea level (msl). Storm water collected in Lined 8 Dam can be pumped to either the top of the South Lampbright Leach Stockpile, the SX/EW Feed Pond, Reservoir 7, or into the Stainless Steel PLS Tank. [20.6.2.3109 NMAC]

11. *Un-lined 8 Dam:* Un-lined 8 Dam is an unlined impoundment that was previously used to collect PLS from the Lambright Leach Stockpile (previously known as Reservoir 8). During normal conditions Un-lined 8 Dam will receive impacted storm water during and following storm events. Un-lined 8 Dam is permitted to receive PLS in the event of upset conditions, storm events or maintenance and repair activities. Storm water collected in Un-lined 8 Dam is pumped to Lined 8 Dam. [20.6.2.3109 NMAC]

12. *Pump back wells/Interceptor Systems:* Chino shall collect contaminated ground water and acidic seepage solutions in wells LB-10, TLB-30, 376-97-06, 376-2004-06, and Lampbright Sump 3 (LBS3), Lampbright Sump 4 (LSB4) and the spring below Un-lined 8 dam (SBR8). Impacted water from LB-10 is pumped to the Lampbright East Sump. Impacted water from TLB-30 is pumped to Seepage Headwall 13, and impacted water from 376-2004-06 is pumped to Seepage Headwall 1. Seepage Headwall 1 and 13 both report solutions to the Stainless Steel PLS tank. Impacted water from well 376-97-06 and Sumps 3 and 4 is pumped to the Un-named Sump Extension from which it is pumped to Lampbright Sump 2 (LBS2). Water flows by gravity from LBS2 to Lampbright Sump 1 (LBS1) from where it is pumped to Reservoir 6 or Reservoir 7. Impacted water from SBR8 is pumped into Un-lined 8 Dam. Chino shall take all necessary actions to ensure that the seepage collection systems are operating as efficiently as possible at all times in order to minimize impacts to ground

water. Chino shall expand or add seepage collection systems as needed to address new areas of contamination when ongoing ground water monitoring indicates such measures are needed. [20.6.2.3109 NMAC]

Pipeline Operation

13. Chino shall operate all PLS, raffinate and process water pipelines in a manner to prevent their discharge in areas not authorized by this discharge permit. Upon discontinuing the operation of a pipeline or prior to moving a pipeline, all PLS, raffinate or process water within each pipeline shall be released to an authorized discharge location or otherwise properly contained, transferred or disposed of in a manner that does not result in discharges to non-authorized areas. After emptying, each pipeline shall be rinsed or sectioned and thoroughly drained to ensure residual contaminants are removed. Discharges of PLS, raffinate and process water from pipelines to non-authorized areas must be reported under 20.6.2.1203 NMAC. All changes in pipeline operations that result in removal of pipeline fluids in unauthorized discharge areas must be reported semi-annually in accordance with Condition 28. [20.6.2.3109 NMAC]

Storm Water Management

14. As described in the Emergency Response Plan revision dated October 7, 2009, storm water in the southern portion of the Lampbright Leach System area shall be collected in 3 concrete lined settling ponds and transferred via gravity thru HDPE pipelines to Un-lined 8 Dam, then pumped to Lined 8 Dam or gravity fed when the elevation of Un-lined 8 Dam reaches an elevation of 6138 feet. Storm water during large storm events will flow overland and collect in the Un-lined 8 Dam. Storm water in the northern Lampbright area is collected in unlined sumps and trenches including LBS1, LBS2, and the Un-named Sump Extension. Impacted storm water in the northern area is ultimately transferred to the 6300 pipeline from where it can be transferred to the SX/EW Feed Pond, the Raffinate Tank or Reservoir 7. Impacted storm water from Un-lined 8 Dam is transferred to the Lined 8 Dam and transferred to either the top of the South Lampbright Stockpile, the SX/EW Feed Pond or to Reservoir 7. Chino shall submit to NMED within 6 months of the discharge permit approval date an updated Emergency Response Plan to reflect recent changes in storm water management. [20.6.2.3109 NMAC]

Southwest Lampbright Waste Rock Stockpile

15. Chino shall construct the Southwest Lampbright pipeline corridor infill and toe buttress in accordance with the discharge permit modification application dated July 29, 2008 and the Southwest Lampbright Stockpile Slope Stability Assessment dated July 9, 2008 and Addendum dated February 19, 2009. The proposal includes relocation of the PLS pipeline and power line corridor, redesign and construction of seepage collection systems within the existing pipeline corridor, construction of a toe buttress at least 20 feet in height and 100 feet wide, and construction of the waste rock pile with maximum interbench heights of 100 feet resulting in an overall slope face of 2.5H:1V at the southeast end of the stockpile, or an alternate design as approved by NMED. The final top surface of the corridor infill and toe buttress is projected to be approximately 70 acres while the final outward facing slope will be

approximately 450 feet in height and cover approximately 31 acres. As portions of the southwest slope of the Lampbright Leach Stockpile are covered by waste rock they will no longer be leached. [20.6.2.3109 NMAC]

16. Chino shall submit to NMED for approval a minimum of 60 days prior to initiation of placement of waste rock within the current PLS pipeline corridor final design drawings for the toe buttress, waste rock pile, seepage collection system within the existing pipeline corridor and the relocation of the PLS pipelines. The seepage collection system must be designed such that it does not allow for saturation of the toe buttress or saturation of the alluvial sediments on which the buttress will be placed. Additionally, the seepage collection system design must account for any additional toe heave that may occur following construction. [20.6.2.3109 NMAC]

17. Chino shall submit to NMED for approval a minimum of 60 days prior to initiation of placement of waste rock within the current PLS pipeline corridor a proposal to monitor the potential for long term horizontal and vertical creep of both the buttress and the stockpiles. The proposal should include contingency plans with steps to be taken in the event creep results in fissures, stockpile instability or other noticeable impacts. [20.6.2.3109 NMAC]

Monitoring Well Replacement

18. Chino shall provide NMED at least 30 days notification of the anticipated destruction or removal of any monitoring wells required under DP-376. In the event of unintentional well destruction or damage requiring well abandonment, Chino shall notify NMED as soon as possible. The notification shall include a description of monitoring well abandonment procedures and propose a replacement well location for NMED approval. Monitoring well abandonment shall be performed in accordance with *NMED Monitoring Well Construction and Abandonment Guidelines* or alternate method approved by NMED. [20.6.2.3107 NMAC]

MONITORING AND REPORTING

19. Chino shall conduct the following monitoring, reporting and other requirements listed below. A summary of monitoring requirements is attached to this Permit as Table 1. The monitoring schedule is attached as Table 2. [20.6.2.3107.A NMAC]

Sampling and Field Measurements (Table 1)

20. *PLS Collection System* - The Stainless Steel PLS Tank shall be sampled semiannually and analyzed for the water parameters listed in Conditions 26b and 26c below. [20.6.2.3107.A NMAC]

21. *Ground Water Monitoring Wells* - Chino shall monitor ground water quality as follows. [20.6.2.3107.A NMAC]

    a. Monitoring Wells 376-00-01, 376-00-02D, 376-00-02S, 376-00-03, 376-00-04, 376-00-05, 376-00-06, 376-00-07, 376-00-08, 376-00-10D, 376-00-10S, 376-97-01, 376-97-02, 376-97-03, 376-97-04, 376-97-05, 376-97-06, LB-CUT, LB-EAST, LB1, LB3, LB7S,

LB7D, LB10, TLB23, TLB27, TLB28, TLB29, TLB-32, TLB-33A, TLB-35A, LB-2401, Sump 4 and the Spring below Un-lined 8 Dam and any new wells shall be sampled as follows:

1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), quarterly.

2) Chino shall collect samples from each well quarterly and analyze for the water parameters listed in Condition 26b and 26c below.

b. Monitoring Wells LB-CUT, LB-EAST, LB1, TLB23, TLB29 and 376-97-06, the Raffinate Booster Tank, and the Stainless Steel PLS Tank shall be sampled as follows:

1) Chino shall collect samples annually and analyze for the water parameters listed in Condition 26d below.

2) If TPH in any well exceeds 5 mg/L, Chino shall resample the well within 15 days of receiving the analysis described in 20.b.1 above, and analyze for the water parameters listed in Condition 26e below.

c. Monitoring Wells LB2, LB4, LB5, TLB17 and TLB34 shall be sampled as follows:

1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), quarterly.

2) Chino shall collect samples from each well quarterly and analyze for the water parameters listed in Condition 26b below.

d. Monitoring Wells LB6, TLB33B, TLB35B, TLB5, TLB6, TLB7, TLB10, TLB11, TLB16, TLB22, TLB25, TLB26, TLB30, TLB31, 376-96-03, 376-96-04, 376-96-05 376-96-06 and SL-41 shall be sampled as follows:

1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), annually.

2) Chino shall collect samples from each well annually and analyze for the water parameters listed in Condition 26b below.

Analytical results and depth to ground water measurements shall be reported as required in Condition 27 below.

22. *Tributary 2 Corrective Actions* - The following sampling plan will be conducted to meet the conditions of the approved corrective actions for the Lampbright Tributary 2 Corrective Action Completion Report and Administrative Compliance Order. [20.6.2.3107.A NMAC]

a. Monitoring Wells 376-2008-01, 376-2008-02, and 376-2008-03 shall be sampled as follows:

1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), in September 2010.

2) Chino shall collect samples from each well in September 2010 and analyze for the water parameters listed in Condition 26b and 26f below.

b. Monitoring Wells 376-2009-01, 376-2009-02, 376-2009-03, 376-2009-04, 376-98-01 and 376-2008-01 shall be sampled as follows:

1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft) every two months through September 2010.

2) Chino shall collect samples from each well every two months through September 2010 and analyze for the water parameters listed in Condition 26b and 26c below.

c. Chino shall collect sediment samples at locations T2S7, T2S10, T2S3, and T2S1 in September 2010 and analyze for paste pH, sulfate, calcium, magnesium, sodium, potassium, chloride, copper, iron, manganese, and zinc.

d. Chino shall collect surface water samples at locations LBT-16, LBT-11, LBT-10, and LBT-5 in September 2010 and analyze for the water parameters listed in Condition 26b and 26f below.

e. Chino shall submit an interim report to NMED that provides analytical data collected as part of the post-cleanup monitoring by January 31, 2010 and June 30, 2010 in tabular format as described in Condition 28b below.

f. Chino shall submit a final summary report to NMED for approval no later than December 21, 2010. The report shall include a summary of data collected as part of the post-cleanup monitoring and analysis of the effectiveness of the corrective action activities. In addition, Chino shall include a proposal with a supporting discussion regarding whether the monitoring wells included in this monitoring plan shall be either monitored under DP-376, monitored under the site-wide abatement plan, or plugged and abandoned.

23. *Storm Water* – Pursuant to the emergency response plan, Chino shall inspect on a monthly basis all storm water impoundments, dikes and collection ponds for the presence of storm water accumulations that exceed designed capacities. In the event of rainfall, Chino shall pump storm water from Un-lined 8 Dam to the lowest level possible except as described in the emergency response plan. [20.6.2.3107.A NMAC]

24. *Discharge Volumes* – Chino shall measure the following discharge volumes using appropriate metering devices and/or calculation methods. Discharge volumes and dates shall be reported semi-annually as required in Condition 28 below. [20.6.2.3107.A NMAC]

a. The daily volume of raffinate (gpd) discharged to the top of the Main Lampbright and South Lampbright Stockpiles.

b. The daily volume of PLS (gpd) pumped from the Stainless Steel PLS Tank to the SX/EW plant.

c. The daily volume of blended Lake One material placed on top of the Lampbright Leach Stockpile.

d. The daily volume of Reservoir 6, Reservoir 7, Lined 8 Dam and Un-lined 8 Dam sediments placed on top of the Lampbright Leach Stockpile.

25. *Meteorological Data*- Chino shall measure daily precipitation near Un-lined 8 Dam and report as required in Condition 28 below. [20.6.2.3107.A NMAC]

Analysis

26. Samples of surface water, storm water and process water shall be analyzed for total and dissolved concentrations of the analytes listed below. Samples of ground water, seeps and springs shall be analyzed for dissolved concentrations of the analytes listed below. [20.6.2.3107.A NMAC]

a. Field parameters (analysis to be performed in the field): temperature, pH, and specific conductance.

b. Indicator parameters: field parameters in Condition 26a plus sulfate and total dissolved solids (TDS).

c. Comprehensive inorganic parameters: alkalinity-bicarbonate, alkalinity-carbonate, calcium, magnesium, sodium, potassium, fluoride, chloride, aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel and zinc.

d. Organic parameters I: Total petroleum hydrocarbons (TPH).

e. Organic parameters II: Kerosene, Ethylbenzene, Napthalene and Toluene.

f. Tributary 2 inorganic parameters: alkalinity-bicarbonate, alkalinity-carbonate, calcium, magnesium, sodium, potassium, chloride, copper, iron, manganese, and zinc.

Methodology

27. Unless otherwise approved in writing by NMED, Chino shall conduct sampling and analysis in accordance with the most recent edition of following documents. [20.6.2.3107.B NMAC]:

a. American Public Health Association, *Standard Methods for the Examination of Water and Wastewater.*

b. U.S. Environmental Protection Agency, *Methods for Chemical Analysis of Water and Waste.*

c. U.S. Geological Survey, *Techniques for Water Resource Investigations of the U.S. Geological Survey.*

d. American Society for Testing and Materials, *Annual Book of ASTM Standards*, Part 31. Water.

e. U. S. Geological Survey, et al., *National Handbook of Recommended Methods for Water Data Acquisition.*

f. Surface water monitoring must also be conducted according to test procedures approved under Title 40 Code of Federal Regulations Part 136.

Reporting

28. Chino shall submit to NMED semi-annual monitoring reports containing information collected during the preceding six months from January 1st to June 30th by August 15th and from July 1st to December 31st by February 15th. Annual data shall be submitted in the February 15th report. The reports shall include the following information. [20.6.2.3107.A NMAC]

    a. A summary shall be provided of all activities at the facility during the preceding six months. For example, operational activities, daily flow volumes, spills, maintenance, repairs, synopsis of completed studies relevant to the facility, well drilling, water management, construction or demolition of structures, addition of leach ore material, addition of waste rock material, addition of blended Lake One material and reservoir sediments, water quality trends, precipitation and trends in water levels. If applicable, a summary of seep and spring flows as well as potentiometric maps shall also be included.

    b. A single table shall be provided semi-annually in a paper and electronic format (EXCEL spreadsheet) of water quality data with only those constituents analyzed and water levels measured during a single event shown in columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites shall be shown in rows. Values exceeding standards shall be bolded. Any constituent not analyzed for a particular site shall be shown as "NA", any site not sampled shall be shown as "NS" with an associated reason, and any site not measured for water levels shall be shown as "NM" with an associated reason.

    c. A single table as described Condition 28b above shall be provided annually that includes all available water quality data to date. For each monitoring well, the name of the well shall be entered in the far left column. Sampling events, beginning with the earliest event first, shall be entered in subsequent rows with the corresponding analytical data in columns to the right. Each new sampling event shall be added as an additional row to the existing spreadsheet with the date of the sampling event noted in the far left column under the monitoring well name.

    d. Electronic copies of the signed laboratory analyses sheets shall be provided semi-

annually.

e. Daily volumes of acid leach solution applied to leach ore stockpiles and PLS pumped from Un-lined 8 Dam shall be reported semi-annually.

f. Semi-annual monitoring reports shall include water quality trends, laboratory QA/QC, trends in hydrographs, potentiometric surface maps and precipitation. At a minimum, graphs with the previous 5 years of indicator parameter data shall be presented for TDS, sulfate, and hydrographs (pH may substituted for hydrographs at reservoirs or springs).

g. Flow measurements of seeps shall be reported semi-annually with the seep location and flow estimation method noted. A clearly marked map shall be included with labeled locations for each seep area and ponded water area. The first submittal of seeps and ponded areas shall include photos of each location indicated on the map.

h. Chino shall submit semi-annually a potentiometric map for the intermediate aquifer in the vicinity of North Lampbright. At a minimum, the map boundary shall include the northeast corner of the Main Lampbright leach ore stockpile, monitoring well 376-98-01 to the east, monitoring well 376-97-04 to the west, monitoring well 376-00-10 to the north, and other monitoring wells located in the area of the ground water divide.

i. Chino shall submit annually a potentiomentric surface map of the northern area. The map may be the same as is required in DP-1340 for the northern area.

j. Chino shall submit annually the daily precipitation data from the station near Un-lined 8 Dam.

ABATEMENT

29. Ground water standards have been exceeded within and beyond the area covered under this Discharge Permit. Chino has been required to submit to NMED for approval a proposed abatement plan pursuant to Condition 32 of the Supplemental Discharge Permit for Closure, DP-1340. The abatement plan shall be conducted in two stages. Stage one of the abatement plan shall include an investigation of all known areas of ground water and surface water contamination within the area covered by DP-376 for the Lampbright Leach System, and shall define the extent and magnitude of ground water contamination in accordance with Sections 20.6.2.3109.E.1 or 20.6.2.4000 NMAC through 4115 NMAC. Stage two of the abatement plan shall address the selection of an abatement option to abate ground water contamination and shall include an analysis of abatement alternatives pursuant to 20.6.2.4106.E NMAC. Pursuant to 20.6.2.3109E (1), NMED may require additional abatement activities under this Discharge Permit Renewal. [20.6.2.4000 through 4115 NMAC] [20.6.2.3109.E NMAC]

CONTINGENCY MEASURES

Ground Water and Surface Water Exceedences

30. In the event that monitoring indicates ground water or surface water standards are exceeded, or the extent or magnitude of existing ground water contamination is significantly increasing, Chino shall collect a confirmatory sample from the monitoring well(s) within 15 days to confirm the initial sampling results. Within 30 days of the confirmation of ground water or surface water contamination or significant increases in existing contamination, Chino shall submit to NMED for approval an abatement plan required in Condition 28, which includes a site investigation to define the source, nature and extent of contamination; a proposed abatement option, and a schedule for its implementation. The site investigation and abatement option shall be consistent with the requirements and provisions of Sections 20.6.2.4101, 4103, 4106, 4107, 4108 and 4112 NMAC. An abatement plan required under this condition may be incorporated into the abatement plan required in Condition 29 of this Discharge Permit. [20.6.2.3107.A (10) NMAC]

Operational Failures

31. In the event of a pipeline break, pump failure, pond overflow or other system failure associated with any facility covered under DP-376, all discharge water shall be contained, pumped and transferred to areas of the facility that impose minimal impacts to ground water quality. Failed components shall be repaired or replaced as soon as possible and no later than 72 hours from the time of failure unless Chino obtains a written consent and a new timetable from NMED. [20.6.2.3107A (10) NMAC]

32. If NMED or Chino identifies any other failures of the discharge plan or system not specifically noted in this permit, NMED may require Chino to develop for NMED approval contingency plans and schedules to address such failures. [20.6.2.3107.A.10 NMAC]

Spill Reporting and Remediation

33. In the event of a spill or release that is not authorized under this Discharge Permit, Chino shall initiate the notifications and corrective actions as required in 20.6.2.1203 NMAC. Chino shall take immediate corrective action to contain and remove or mitigate any damage caused by the discharge. Within 24 hours after discovery of the discharge, Chino shall verbally notify NMED and provide the information required by 20.6.2.1203.A.1 NMAC. Within 7 days of discovering the discharge, Chino shall submit a written report to NMED verifying the oral notification and providing any additional information or changes. Chino shall submit a corrective action report within 15 days after discovery of the discharge. [20.6.2.1203 NMAC]

CLOSURE

34. Chino shall maintain a closure plan for the entire Lampbright Leach System pursuant to the Supplemental Discharge Permit for Closure, DP-1340. In the event that Chino modifies or expands the Lampbright Leach System pursuant to Discharge Permit, DP-376 in a manner

that exceeds the scope of the closure plan, Chino shall propose changes to the closure plan accordingly. [20.6.2.3107.A.11 NMAC]

FINANCIAL ASSURANCE

35. Chino shall maintain financial assurance pursuant to the Supplemental Discharge Permit for Closure, DP-1340, for the entire Lampbright Leach System. In the event that Chino modifies or expands the Lampbright Leach System pursuant to Discharge Permit, DP-376 in a manner that exceeds the scope of the closure plan, Chino shall propose changes to the financial assurance accordingly. [20.6.2.3107.A.11 NMAC]

IV. GENERAL TERMS AND CONDITIONS

36. Chino shall comply with the following general conditions, which shall be enforceable by NMED.

Record Keeping

37. Chino shall maintain at its facility a written record of all data and information on monitoring of ground water, surface water, seepage, and meteorological conditions pursuant to this Discharge Permit including the following information. [20.6.2.3107.A NMAC]

    a. The date, exact time, and exact location of each sample collection or field measurement;

    b. The name and job title of the person who performed each sample collection or field measurement;

    c. The date of the analysis of each sample;

    d. The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample;

    e. The analytical technique or method used to analyze each sample or take each field measurement;

    f. The results of each analysis or field measurement, including the raw data; and,

    g. A description of the quality assurance and quality control procedures used.

38. Such data and information as described in Condition 37, shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107.A NMAC]

39. Chino shall maintain a written record of any spills, seeps or leaks of effluent, or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]

40. Chino shall maintain a written record of the operation, maintenance and repair of all facilities/equipment used to treat, store, or dispose of wastewater; to measure flow rates; to monitor water quality; or, to collect other data required by this Discharge Permit. This record shall include repair, replacement or calibration of any monitoring equipment and repair or replacement of any equipment used in the conveyance of process waters throughout this permit area. [20.6.2.3107.A NMAC]

41. Notwithstanding any company record retention policy to the contrary, until such time as NMED determines that all closure measures have been completed in accordance with the requirements of this Discharge Permit, Chino shall retain copies of all data, records, reports, and other documents generated pursuant to this Discharge Permit. Such record retention period may be increased by the NMED at any time upon written notice to Chino. [20.6.2.3107.A NMAC]

42. All such data, records, reports, and other documents generated pursuant to this Discharge Permit, shall be provided to the NMED upon request. [20.6.2.3107.A NMAC]

Inspection and Entry

43. Chino shall allow the Secretary or an authorized representative of NMED, upon the presentation of credentials to:

    a. Enter any property or premises owned or controlled by Chino at reasonable times upon Chino's premises or at another location where records are kept under the conditions of this Discharge Permit or any Federal or WQCC regulation.

    b. Inspect and copy, at reasonable times, records required to be kept under the conditions of this Discharge Permit or pursuant to State or Federal water quality regulations.

    c. Inspect, at reasonable times, any facility, equipment (including monitoring and control equipment for treatment works), practices or operations regulated or required under this Discharge Permit or under any Federal or WQCC regulations.

    d. Sample or monitor at reasonable times any effluent, water contaminant, or receiving water at any location before or after the discharge for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the New Mexico Water Quality Act. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

44. Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of the NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107 NMAC]

Duty to Provide Information

45. Within a reasonable time after a request from the NMED, which time may be specified by the NMED, Chino shall provide the NMED with any relevant information to determine whether cause exists for modifying, terminating, or renewing this Discharge Permit, or to

determine whether Chino is in compliance with this Discharge Permit. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

46. Nothing in this Discharge Permit shall be construed as limiting in any way the information gathering authority of the NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

Spills, Leaks and Other Unauthorized Discharges

47. This Discharge Permit authorizes only those discharges specified herein. Any discharge not authorized by this Discharge Permit or any other Chino Discharge Permit is a violation of the WQCC Regulations at 20.6.2.3104 NMAC. Chino must report any such discharge to the NMED, and it must take corrective action to contain and remove or mitigate the damage caused by the discharge in accordance with Section 2.6.2.1203 NMAC and, if applicable, Condition 29. [20.6.2.1203 NMAC]

Modifications and Amendments

48. Chino shall notify the NMED of any changes to its leachate or process water collection or disposal system, including any changes in the leachate or process water flow rate or the volume of leachate or process water storage, or of any other changes to its mining operations or processes that would result in any significant change in the discharge of water contaminants. Chino shall obtain NMED approval, as a modification to this Discharge Permit pursuant to Section 20.6.2.3109.E, F, or G NMAC, prior to any increase in the quantity leachate or process water discharged, any change in location of a discharge, or any increase in the concentration of water contaminants discharged above those levels approved in this Discharge Permit. [20.6.2.3107 NMAC]

Enforcement

49. Any violation of the requirements and conditions of this Discharge Permit, including any failure or refusal to allow the NMED to enter and inspect records or facilities, or any refusal or failure to provide the NMED with records or information, may subject Chino to an enforcement action. Pursuant to WQA § 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, suspending or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to the WQA §§ 74-6-10(C) and 74-6-10.1, civil penalties of up to $15,000 per day of noncompliance may be assessed for each violation of the WQA § 74-6-5, the WQCC regulations, or this Discharge Permit, and civil penalties of up to $10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation standard, or order adopted pursuant to such other provision. For certain violations specified in the WQA § 74-6-10.2, criminal penalties may also apply. In any action to enforce this Discharge Permit, Chino waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. Chino does not waive any argument as to the weight such evidence should be given.

Compliance with Other Laws

50. Nothing in this Discharge Permit shall be construed in any way as relieving Chino of its obligation to comply with all applicable Federal, State, and local laws, regulations, permits, or orders. [74-5-5.K WQA]

Liability

51. The approval of this Discharge Permit does not relieve Chino of liability should the operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations. [20.6.2.1220 NMAC]

Right to Appeal

52. Chino may file a petition for a hearing before the WQCC on this Discharge Permit. Such petition must be made in writing to the WQCC within thirty (30) days after Chino receives this Discharge Permit. Unless a timely petition for a hearing is made, the decision of NMED shall be final. [74-6-5.N WQA]

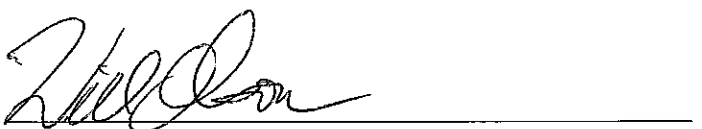
Transfer

53. Prior to any transfer of ownership, control, or possession of the permitted facility or any portion thereof, Chino shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Permit with the notice. Chino shall deliver or send by certified mail to the NMED a copy of the notification and proof that such notification has been received by the proposed transferee. [20.6.2.3111 NMAC]

Term

54. The effective date of this Discharge Permit is the date it is issued and signed by the Chief of the Ground Water Quality Bureau. The term of this Discharge Permit is five (5) years, and the Permit will automatically expire five (5) years from the date it is issued. To renew this Discharge Permit, Chino must submit an application for renewal at least 120 days before that date. [74-6-5.H and 20.6.2.3109.H NMAC]

Issued this 17th day of June, 2010



William C. Olson, Chief
Ground Water Quality Bureau
New Mexico Environment Department

Under authority delegated by the Secretary of the New Mexico Environment Department

CHINO LAMPBRIGHT LEACH SYSTEM, DP-376
MONITORING SUMMARY

Monitoring Reports are due by February 15 and August 15 of each year

Table 1: Reporting Summary

Annual Sampling Frequency	Annual Reporting Frequency	Number of Sites	Sampling Description
4	2	36	Water levels quarterly
4	2	2	Dailiy volume of raffinate applied and PLS pumped from Stainless Steel PLS Tank
1	1	22	Water levels annually
1	1	22	Temperature, pH, Specific Conductance, TDS and SO_4
4	2	15	Temperature, pH, Specific Conductance, TDS and SO_4
4	2	31	Tabulated data and signed lab sheets for pH, Temp, Specific Conductance, SO_4, TDS, alk-HCO_3, alk-CO_3, Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni and Zn
1	1	6	TPH
2	2	1	North Lampbright Potentiometric Map
1	1	1	Northern Area Potentiometric Map
2	2	58	Hydrographs and water quality trends
2	2	4-8 (varies)	Flow measurement of seeps
365	1	1	Daily precipitation data
4	2	NA	Activities Report

Table 2 Monitoring Schedule

Area	Locations	Sampling						Notes
Sub-Area		type	Q1	Q2	Q3	Q4	other	
North Lampbright								
Northwest	LBCUT	mw	BCW	BCW	BCW	BCDW		
	376-97-03	mw	BCW	BCW	BCW	BCW		
North	LBEAST	mw	BCW	BCW	BCW	BCDW		
	376-00-02S	mw	BCW	BCW	BCW	BCW		
	376-00-02D	mw	BCW	BCW	BCW	BCW		
	376-00-03	mw	BCW	BCW	BCW	BCW		
	376-00-04	mw	BCW	BCW	BCW	BCW		
	376-00-05	mw	BCW	BCW	BCW	BCW		
	376-00-06	mw	BCW	BCW	BCW	BCW		
	376-00-07	mw	BCW	BCW	BCW	BCW		
	376-00-08	mw	BCW	BCW	BCW	BCW		
	376-00-10S	mw	BCW	BCW	BCW	BCW		
	376-00-10D	mw	BCW	BCW	BCW	BCW		
	376-97-01	mw	BCW	BCW	BCW	BCW		
	376-97-02	mw	BCW	BCW	BCW	BCW		
	376-97-04	mw	BCW	BCW	BCW	BCW		
	New wells	mw	BCW	BCW	BCW	BCW		
Northeast	376-97-06	mw	BCW	BCW	BCW	BCDW		
	376-97-05	mw	BCW	BCW	BCW	BCW		
	Sump 4	sp	BCW	BCW	BCW	BCW		
	Raffinate Booster Tank					D		
Lampbright East and Southeast								
	LB10	mw	BCW	BCW	BCW	BCW		
	376-00-01	mw	BCW	BCW	BCW	BCW		
	TLB26	mw			BW			

Area	Locations	Sampling						Notes
Sub-Area		type	Q1	Q2	Q3	Q4	other	
	TLB27	mw	BCW	BCW	BCW	BCW		
	TLB28	mw	BCW	BCW	BCW	BCW		
	TLB29	mw	BCW	BCW	BCW	BCDW		
	TLB31	mw			BW			
	SL-41	mw			BW			
South Lampbright Leach Ore Stockpile and Southwest Lampbright Waste Rock Pile								
Southeast	TLB5	mw			BW			
	TLB6	mw			BW			
	TLB7	mw			BW			
	TLB10	mw			BW			
	TLB11	mw			BW			
	TLB16	mw			BW			
	TLB17	mw	BW	BW	BW	BW		
	TLB22	mw			BW			
	TLB23	mw	BCW	BCW	BCW	BCDW		
	TLB25	mw			BW			
	TLB30	mw			BW			
	TLB33A	mw	BCW	BCW	BCW	BCW		
	TLB33B	mw			BW			
	TLB34	mw	BW	BW	BW	BW		
	TLB35A	mw	BCW	BCW	BCW	BCW		
	TLB35B	mw			BW			
Southwest	TLB32	mw	BCW	BCW	BCW	BCW		
Un-lined 8 Dam and Southern Tributary 1								
	Stainless PLS Tank	sw	BC	BC	BC	BCD		
	Spg below Res 8	spg	BCW	BCW	BCW	BCW		
	Pond 4	sw	BC	BC	BC	BC		
	LB7S	mw	BCW	BCW	BCW	BCW		
	LB7D	mw	BCW	BCW	BCW	BCW		
	LB1	mw	BCW	BCW	BCW	BCDW		
	LB2	mw	BW	BW	BW	BW		
	LB3	mw	BCW	BCW	BCW	BCW		
	LB4	mw	BW	BW	BW	BW		
	LB5	mw	BW	BW	BW	BW		
	376-96-03	mw			BW			
	376-96-04	mw			BW			
	376-96-05	mw			BW			
	376-96-06	mw			BW			
	LB6	mw			BW			

Lambright Tributary 2 Corrective Action Requirements				
	Location	**Type**	**Analytical Suite**	**Sampling Frequency**
	376-2008-01	mw	BF	Sept. 2010
	376-2008-02	mw	BF	Sept. 2010
	376-2008-03	mw	BF	Sept. 2010
	376-2009-01	mw	BC	Every two months until Sept. 2010
	376-2009-02	mw	BC	Every two months until Sept. 2010
	376-2009-02	mw	BC	Every two months until Sept. 2010
	376-2009-02	mw	BC	Every two months until Sept. 2010
	376-98-01	mw	BC	Every two months until Sept. 2010

	376-2008-01	mw	BC	Every two months until Sept. 2010
	T2S1	sed	Subset of BF	Sept. 2010
	T2S3	sed	Subset of BF	Sept. 2010
	T2S7	sed	Subset of BF	Sept. 2010
	T2S10	sed	Subset of BF	Sept. 2010
	LBT-5	sw	BF	Sept. 2010
	LBT-10	sw	BF	Sept. 2010
	LBT-11	sw	BF	Sept. 2010
	LBT-16	sw	BF	Sept. 2010

Explanation to Abbreviations and Symbols

Type: mw = monitoring well
ew = extraction well
sw = surface water
spg = spring
sp = seep
sed = sediment

Sampling Quarter:
Q1 = Jan-Mar
Q2 = Apr-Jun
Q3 = Jul-Sep
Q4 = Oct-Dec

Sampling Analytical Suites:
A = Field parameters: Temp, pH, specific conductance
B = Indicator parameters: suite A, sulfate, TDS
C = Comprehensive inorganic suite: alk-HCO_3, alk-CO_3, Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni and Zn
D = Organic parameters I: TPH
E = Organic parameters II: Kerosene, Ethylbenzene, Napthalene and Toluene.
F = Trib 2 inorganic suite: alk-HCO_3, alk-CO_3, Ca, Mg, Na, K, Cl, Cu, Fe, Mn, and Zn
W = Depth to water measurement to the nearest 0.01 foot.