STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION
Jim Gibbons, Governor
Allen Biaggi, Director
Leo M. Drozdoff, P.E., Administrator

March 13, 2009

NOTICE OF DECISION

Web posting date 3/16/09

Water Pollution Control Permit
Number NEV0094110

Newmont Mining Corporation

Mule Canyon Mine

The Nevada Division of Environmental Protection (Division) has decided to renew Water Pollution Control Permit NEV0094110 to Newmont Mining Corporation. This permit authorizes the closure of the approved mining facility located all within Lander County. The Division has been provided with sufficient information, in accordance with Nevada Administrative Code (NAC) 445A.350 through NAC 445A.447, to assure the Division that public safety and health will be protected.

The permit will become effective March 28, 2009. The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to Nevada Revised Statute (NRS) 445A.605 and NAC 445A.407. All requests for appeals must be filed by 5:00 PM, March 23, 2009, on Form 3, with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249. For more information, contact Kurt F. Kolbe at (775) 687-9405 (kkolbe@ndep.nv.gov) or visit the Division's Bureau of Mining Regulation and Reclamation website at www.ndep.nv.gov/bmrr/bmrr01.htm.

One comment letter, with attachment, was received during the public comment period. The Great Basin Resource Watch (GBRW) emailed a comment letter dated December 19, 2008. The GBRW letter also contained as an attachment the document '*Review of Renewal Water Pollution Control Permit Application NEV0094110 Mule Canyon Mine*' authored by Dr. Tom Myers, dated December 16, 2008.

In summary, the GBRW supports Dr. Myers recommendations and does not support the renewal of Water Pollution Control Permit NEV0094110 at this time.

Select excerpts from both the GBRW letter and the Dr. Myers review are provided in *bold/italics* below. The Divisions' Bureau of Mining Regulation and Reclamation (BMRR) response follow each GBRW/Myers comment.

GBRW COMMENT #1:
'GBRW has commented previously regarding concerns that we have with possibility of South Pit water infiltrating into the groundwater…our focus centered around monitoring well MU-1344. It is our understanding that this well (MU-1344) has been inundated with overflowing water from the South Pit, which the Nevada Department of Environmental Protection (NDEP) considers the reason for poor water quality in this well and has since abandoned.'

BMRR RESPONSE:
MU-1344 is a piezometer constructed in May of 2000. The initial purpose of this piezometer, installed within the South Pit ramp, was to monitor depth to ground water as part of a hydrologic monitoring program. In 2005, groundwater samples (NDEP Profile I) began to be collected. In the early summer of 2005 the South Pit Lake reached its highest elevation to date. During this period MU-1344 was inundated with poor quality South Pit Lake water. Until this inundation period, the static groundwater elevation within MU-1344 was always above South Pit Lake elevations. In addition, MU-1344 TDS/SO4 values for example, prior to inundation, were well below (did not reflect) elevated South Pit Lake TDS/SO4 values. Groundwater samples taken from MU-1344 after inundation reflect South Pit Lake water quality - indicating MU-1344 contamination. However, MU-1344 has not been plugged as perhaps it may be of future use *(BMRR; Jan 17, 2008)*.

GBRW COMMENT #2:
'As is detailed in Myers' review well MU-1358, also downgradient to the South Pit, has shown elevated levels of manganese and iron both markers of the South Pit. MU-1358 well sulfate levels are with[in] standards, but elevated by a factor ranging from 2 to 10 relative historical levels as seen in the 1996 Environmental Impact Statment EIS)(see Appendices B-1 and B-2)… In our opinion well MU-1358 may be showing evidence of South Pit lake water infiltrating into the groundwater, and the NDEP needs to take action to ascertain whether the "Waters of the State" have been degraded, and take corrective action if degradation has occurred.'*
[- US Bureau of Land Management, Draft Mule Canyon Mine Environmental Impact Statement, April 1996. Note that the Final Environmental Impact Statement referenced the draft document for unchanged data and discussion - Myers]*

BMRR RESPONSE:
Wells located and screened in different structural blocks may have vastly different hydro-geochemical signatures. None of the groundwater samples analyzed in the Mule Canyon EIS were located within the same structural block as well MU-1358. As such, comparisons of MU-1358 groundwater quality with the EIS groundwater quality may not be valid.

Monitoring well MU-1358 was installed in October of 2005 and has been subject to quarterly groundwater chemical analysis (NDEP Profile I) since constructed. Both the NMC and the BMRR are aware of monitoring well MU-1358 groundwater chemistry profile. In 2007, NMC proposed a ten step program for a groundwater quality investigation in the area just down-gradient of the South Pit Lake *(NMC; Oct 9, 2007)*. This investigation included a technical review of MU-1358 groundwater quality. The BMRR concurred with NMC's proposed investigation outline *(BMRR; Oct 17, 2007)*.

The investigation *(Geomega; Feb 25, 2008)* concluded that:
--MU-1358 is downgradient of, and screened within the same hydrological block as the South Pit Lake.
--MU-1358 is unaffected by South Pit Lake water
--MU-1358 is useful as a sentinel well for the South Pit Lake Block

In addition, an oxygen/deuterium and tritium isotope analyses were conducted on groundwater and surface water in the vicinity of the South Pit during the early summer of 2005 *(JBR, 2005)*. Tritium ratios indicate that groundwater upgradient and downgradient of the South Pit is pre-1952 water, while South Pit Lake water is a mixture of pre- and post-1952 water. The isotope date support the concept that the South Pit Lake is not an outflow system

Below is a table comparing MU-1358 groundwater quality to South Pit Lake surface water quality for constituents mentioned above or relevant to this discussion. The constituent are presented as a simple average value of the samples. MU-1358 water quality data represents all data collected to date (4th Quarter/ 2008). The South Pit Lake water quality data presented below is based on quarterly samples collected after 10/2006 (RO activities had ceased in October - see Fact Sheet page 8 for detail) to date (4th Quarter/2008). Overall South Pit Lake water quality has been and continues to be highly variable.

TABLE 1 - MONITORING WELL MU-1358 AND SOUTH PIT LAKE WATER QUALITY AVERAGES

CHEMICAL CONSTITUENT *(NDEP PROFILE I REFERENCE VALUE)*	MU-1358	SOUTH PIT LAKE
Alkalinity (Total as $CaCO_3$) *(---)*	140	11
Iron *(0.3 - 0.6)*	3.5	1.8
Manganese *(0.05 - 0.10)*	0.67	5.80

pH (± 0.1 standard units) *(6.5 - 8.5 s.u.)*	7.0	6.0
Sulfate *(250 - 500)*	313	4338
Total Dissolved Solids (TDS) *(500 - 1,000)*	716	6058
# of Samples	13	10
Sample Collection Time Period	10/05 thru 10/08	11/06 thru 10/08
Sample Collection Protocol	Constituents reported as NDEP Profile I; as TOTAL DISSOLVED METALS.	Constituents reported as NDEP Profile I; surface grab; as TOTAL DISSOLVED METALS.

All units in mg/l except pH (s.u.);

MU-1358 and South Pit Lake dissolved iron average values are similar; however manganese and TDS/sulfate average values are not. Since sulfate is one of the most conservative solutes in the environment, it is highly unlikely that iron (or manganese) emanating from the South Pit Lake would reach MU-1358 more rapidly than sulfate. This WPCP renewal will require the continued groundwater quality monitoring of MU-1358.

GBRW COMMENT #3:
Furthermore, based on Figure 3-15 of the EIS, the well site designated as MCS-3 appears to be nearest to the MU-1358 well location, and tabular data in Appendicies B-1 and B-2 show that both manganese and sulfate background levels from MCS-3 are an order of magnitude lower than currently observed in MU-1358. We note that MU-1358 iron levels are consistent with background, and that the EIS does not provide enough detail to unambiguously discern whether the MCS-3 data is sampling the same groundwater as the MU-1358 well.

BMRR RESPONSE:
There appears to be some confusion with respect to MCS-3. It is the BMRR's and NMC understanding that MCS-3 (Mule Canyon Spring #3) was a spring located within the footprint of the Ashcraft Pit. Table 3-13 of the EIS lists this as a bedrock spring with the map locator number of 7. Locating #7 on Fig. 3-15 shows this location within Section 33 of T32N, R47E.

GBRW COMMENT #4:
'As noted in the fact sheet (pp. 11-12) there is considerable groundwater contamination east of the Pit Dewatering Pond (PDP). According to an analysis by

JBR poor water escaped the PDP between March 2004 through December 2004 due to a compromised liner. Contamination is persistent in the wells east of the PDP and well MU-1339A, just west and upgradient of the PDP…Great Basin Resource Watch supports Myer's analysis of the source of continued contamination of the groundwater east of the PDP. We believe that Geomaga has concluded prematurely that the Main Pit lake is not a source of this contamination.'

BMRR RESPONSE:
The WPCP Fact Sheet (page 11-12) states that *'Recent sample results in the PDP monitoring wells would indicate that the PDP plume has not acted as predicted by the Final Plume Characterization report (JBR, 2005). Sulfate concentrations remain elevated. An investigation of the chemical signatures within the wells has not conclusively identified the sulfate source. Water quality monitoring of these wells will be continued.'*

The source of the initial elevated sulfate concentrations in PDP downgradient monitoring wells was determined to be PDP (aka Kevin's Pond) leakage (compromised liner) beginning in late 2004. The NDEP did issue to NMC a Finding of Alleged Violation (FOAV)and Order in early 2005.

The GBRW reference to Geomega appears to refer to conclusions contained in the '*Kevin's Pond/Main Pit Groundwater'* investigation document *(Geomega*; *July 28, 2008)*. This document has not 'concluded prematurely' that the Main Pit Lake is not a potential source of elevated sulfate. This Geomega investigation considered various alternatives, including that the Main Pit Lake may be hydraulically connected to the alluvial aquifer system as the chemical signatures suggest mixing of multiple sources and dilution by fresh water run off. The overall investigation, utilizing not only the Geomega investigation but all other available sources of information, concluded that elevated sulfate in the downgradient monitoring wells could be a result of four sources:

--Main Pit Lake flow through component;
--Main Pit access ramp backfill (located between Main Pit and PDP) containing sulphidic minerals;
--Residual PDP pond contamination;
--Residual water truck supply riser overflow contamination (this riser, since removed, was located just upgradient of the PDP pond and used PDP pond water as a source.)

As such, the BMRR has determined that - at this time - continued observation/sampling of both existing PDP downgradient monitoring wells and the Main Pit Lake will be required. It is expected that future groundwater quality monitoring will identify the source of sulfate - for example, if residual PDP pond or

the water riser/water truck overflow is the only source, elevated monitoring well sulfate values should recede relatively quickly. The NMC is currently supplementing these actions with contingency planning. No later than 1 May of this year, the NMC will be submitting to the BMRR an updated Main Pit Lake/PDP monitoring well groundwater investigation plan. The BMRR will require plan implementation should local sulfate levels not demonstrate improvement.

GBRW COMMENT #5:
'In summary, GBRW sees the Mule Canyon site as a complex site that requires more actual data to support predictions of future pit water quality, groundwater movements, and acid drainage. The dynamic nature and fractured geology of this site only supports the need for more data…'

BMRR RESPONSE:
The BMRR concurs with this overall assessment of the Mule Canyon Mine. The proposed WPCP does require the collection of additional data. Individual pit lake water balance and predictive water quality models will be updated as required.

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MYERS COMMENT #1:
'The Fact Sheet reports a low pH seep discharge from the Upper MD-1 dump was "detected" in early 2005, but that corrective action including the installation of a liner and growth material has been added to the dump. The Fact Sheet reports decreasing seepage rates, down 0.5 gpm flowing into the MD-1 pond in March and April, 2008. The third quarter 2008 monitoring report indicates there was no water discharging from the seep. NDEP apparently interprets this data as indicating the cover has having been successful, stating that "no further actions are required" (Fact Sheet, page 11)…'

BMRR RESPONSE:
Dr. Myers has 'misquoted' Fact Sheet language. The WPCP Fact Sheet (page 11) states that *'In early 2005, a low flow, low pH seep was detected at the toe of the Upper MD-1 WRDF. Corrective measures included recontouring and installing a geosynthetic clay liner (GCL), overlain with 18 inches of growth medium, over the WRDF; construction/upgrading stormwater diversion channels; and the installation of a gravity fed, 168,000 gallon seepage collection pond just below the toe of the WRDF.*

Total solution collected in 2006 was 216,500 gal over four months, averaging 1.3 gpm. This was from the toe of the dump and from surface water that infiltrated into diversion channels along the eastern toe of the dump. Additional measures implemented in 2006 include retrofitting stormwater diversion channels with GCL liner and the design and construction of a new double lined, with leak detection,

seepage collection pond (MD-1 Pond). In 2007 the total seepage collected was 126,000 gallons over three months averaging approximately 1.0 gpm. Measured inflow during March and April of 2008 has averaged approximately 0.5 gpm. At this time, no further actions are required [Sentence bolded/underlined for emphasis - BMRR] *Seepage quality and quantity, as well as MD-1 Pond volume and leak detection will continue to be monitored quarterly.'*

The WPCP WRDF (Waste Dumps) monitoring requirements are presented below:

> (9) *The operator will be required to inspect all WRDF (quarterly) for mass and physical stability. Designate surfaces as dry, damp, or wet (visible flow or ponding). Should a discharge be present from any portion of any WRDF, the operator shall measure field pH and field specific conductance (reported as TDS); collect and submit a water quality sample for a NDEP Profile III analysis (as total recoverable metals), take photos and document the event.*

This continued monitoring will be conducted to ensure that the Upper MD-1 WRDF corrective measures implemented in 2005 and 2006 are successful. Additional corrective actions may be required if determined necessary to address future seepage.

MYERS COMMENT #2:
'It appears the model has over-predicted TDS/sulfate for the North Pit; the Fact Sheet does not even list arsenic as a modeled parameter, but for which there are also exceedences in the North Pit.'

BMRR RESPONSE:
It would appear at this time that Dr. Myers is correct with respect to the model over-prediction of future TDS/sulfate values in the North Pit Lake. This renewed permit will require further pit lake water quality data collection efforts to validate model predictions. Dr. Myers is also correct in pointing out the absence of North Pit Lake arsenic values in TABLE 2 - CURRENT AND PREDICTED MULE CANYON PIT LAKE WATER QUALITY. Arsenic levels were modeled, and TABLE 2 will be amended to include the following North Pit Lake arsenic information:

0.044 (0.072-0.026)/
(Variable/Steady)

[<0.001]

The current Fact Sheet (page 6) North Pit Lake water balance/quality detail summary is presented below:

> *NORTH PIT LAKE: In terms of water balance, the North Pit Lake modeled and observed inflow/elevations correlate well. This pit contains more exposed*

sulfidic material than any Mule Canyon pit other than the South Pit. However, modeling predicts manganese, nickel, sulfate, and TDS as elevated over the long-term. North Pit Lake chemistry currently exhibits excellent quality. Selenium concentrations have also been decreasing over time.

The summary will be amended to read:

NORTH PIT LAKE: In terms of water balance, the North Pit Lake modeled and observed inflow/elevations correlate well. This pit contains more exposed sulfidic material than any Mule Canyon pit other than the South Pit. However, modeling predicts manganese, nickel, sulfate, and TDS as elevated over the long-term. Other than elevated concentrations of arsenic, the North Pit Lake exhibits very good water quality. Selenium concentrations have also been decreasing over time.

MYERS COMMENT #3:

The Fact Sheet suggests that "elevated levels of the constituents of concern would not leave Newmont property" (Fact Sheet, page 11). The data just presented do not support this conclusion.

BMRR RESPONSE:

The quote *"elevated levels of the constituents of concern would not leave Newmont property"* appears to have been taken out of context by Dr. Myers. This quote only refers to the initial PDP leakage/plume Risk Assessment conclusion. The entire Fact Sheet paragraph containing this quote is provided below:

'A Risk Assessment (JBR; 2006) was undertaken. The conclusions of the Risk Assessment indicate that elevated levels of the constituents of concern would not leave Newmont property, there would be no permanent impacts to local groundwater conditions, and there is no risk to the public health or to the ecology.'