FACT SHEET
(Pursuant to NAC 445A.401)

Permittee Name: **Barrick Goldstrike Mines Inc.**

Project Name: **AA Block - Barrick**

Permit Number: **NEV0090060 (Renewal 2012- Closure)**

A. Location and General Description of Facility

Location: The AA Block is a portion of the Barrick Goldstrike facilities located in the Little Boulder Basin adjacent to the Tuscarora Mountain Range on the county line between Elko and Eureka Counties, approximately 27 miles northwest of the community of Carlin, Nevada. The facilities are located in Sections 23, 24, 25, 26, 27, 34, 35, and 36, Township 36 North, Range 49 East, and Sections 19, 20, 28, 29, and 30, Township 36 North, Range 50 East, Mount Diablo Baseline & Meridian (MDMB).

The AA Block encompasses an area of approximately 2,854 acres. The private lands, approximately 2,591 acres, are owned or controlled by Barrick Goldstrike Mines Inc. (Permittee) and the unpatented mining claims, approximately 263 acres, are held by Permittee on Bureau of Land Management administered lands.

General Description: The AA Block currently consists of the AA Block Heap Leach Facility (AA Block HLF, which includes AA, Phases I, II, III, and IIIA), one pumpback well, numerous groundwater monitoring wells, the AA Tailings Impoundment, AA Tails Seepage Collection Pond, the Mill 4 Facility, Mill 4 Tailings Storage Facility 1 (Mill 4) and Seepage Collection Pond, and the Bazza Waste Rock Disposal Facility (WRDF). With the closure of the heap leach pad, most of the adsorption, desorption, recovery (ADR) process components have been dismantled, and the buildings converted into a metallurgical testing lab. The AA Block Project is entering into permanent closure.

B. Synopsis

This will be the fourth issuance of Water Pollution Control Permit (WPCP) NEV0090060. The WPCP was first issued on 3 August, 1991, and was renewed on 13 November 1997, and again on 3 January 2007.

In 2008, the AA Block WPCP was reorganized along with the North Block WPCP (NEV0091029) such that active mine components were consolidated into NEV0091029 while components in closure or projected to be in closure in the

near future were consolidated into NEV0090060. The following components were transferred to NEV0091029 during this process:

- AA Barren Solution Pond
- Wet Mill/Autoclave Process Facilities
- Valdez Pond
- Autoclave Stockpile Pads
- AA Block Carbon Reactivation Facilities

Historical information and past test results for these components may be found in previous permit documents and reports for NEV0090060.

AA Block Heap Leach Facility (AA Block HLF which includes AA Pad, Phases I, II, III, and IIIA)

The AA Block HLF is one large heap leach pad segmented into five component leaching areas; the AA Pad (2.2 million sq.ft.); the Phase I Pad (1.9 million sq.ft.); the Phase II Pad (1.2 million sq.ft.); the Phase III Pad (2.6 million sq.ft.); and the Phase IIIA Pad (1.8 million sq.ft.), resulting in a total area of 9.7 million sq.ft. (approximately 223 acres).

Leach ore was primarily hauled directly from the Betze-Post Pit to the leach pads as run-of-mine for leaching. However, a portion of the ore was agglomerated with lime and cement prior to placement on the AA Pad.

The original AA Pad was lined with a single 60-mil High Density Polyethylene (HDPE) liner over compacted soil. The Phases I and II leach pad expansions were lined with 80-mil HDPE over a prepared base of compacted, in-place soil meeting a permeability specification of 1.0×10^{-6} cm/sec. The Phase III leach pad expansion was lined with 80-mil Very Low Density Polyethylene (VLDPE) which overlays a minimum thickness of 12 inches of compacted soil meeting a permeability specification of 1.0×10^{-6} cm/sec. A sand leak detection layer incorporating an electronic leak detection system exists between the synthetic liner mand compacted soil layers of the Phase III expansion. The Phase IIIA leach pad expansion was lined with 80-mil VLDPE, overlaying a minimum thickness of 12 inches of compacted soil meeting a permeability specification of 1.0×10^{-6} cm/sec. The sand layer in turns overlies a lower layer consisting of a minimum thickness of 12 inches of compacted soil meeting a permeability specification of 1.0×10^{-6} cm/sec. A sand leak detection layer incorporating an electronic leak detection system exists below this compacted soil layer.

Leach Pad	Synthetic Liner	Soil Layer	Size
AA Leach Pad	60-mil HDPE	Compacted Soil	2,200,000 ft^2
Phase I Expansion	80-mil HDPE	Soil 10^{-6} cm/sec	1,900,000 ft^2
Phase II Expansion	80-mil HDPE	Soil 10^{-6} cm/sec	1,200,000 ft^2
Phase III Expansion	80-mil VLDPE	12 " Soil 10^{-6} cm/sec	2,600,000 ft^2
Phase IIIA Expansion	80-mil VLDPE	(2) 12" Soil 10^{-6} cm/sec	1,800,000 ft^2

Following the 1997 permit renewal, the AA Block HLF entered permanent closure and the leach pad was reclaimed (FPCP, February 2000). The Closure Plan for the AA Block HLF included placement of a fine textured soil cover vegetated similar to the natural vegetation on adjacent undisturbed areas. The four foot thick soil cover has a sufficiently finer particle size distribution and reduced permeability to provide a capillary break between the material on the leach pad and the cover. It was designed to be of sufficient thickness to store water during the period of maximum precipitation for elimination by evaporation and transpiration during periods of minimum precipitation. Reclamation plans included reshaping to provide natural morphology, eliminate the potential for ponding water, provide a natural looking and naturally functioning drainage network and reduce erosion and sediment yield from the surface of the cover to levels comparable to the existing natural landforms of the area. The cover and drainage network are also designed to minimize the risk of a localized breach of the cover and exposure of the underlying spent ore material. The stormwater drainage system around the perimeter of the re-contoured heap leach pad has been redesigned to safely accept the additional stormwater runoff from the covered leach pad area.

1-Dimensional and 2-Dimensional hydrologic analyses indicate that the percolation rate through the covered AA Block HLF is small because of the significant difference between precipitation and potential evaporation in the region. Based on the analyses performed, a four-foot cover thickness was selected as the optimum cover design. A four-foot thick capillary/evapotranspiration (ET) cover constructed of Carlin Formation siltstones will effectively minimize water percolating through the recontoured AA Block HLF. The ET cover is expected to be stable under all conditions anticipated in the proposed re-contouring design. The design also incorporates a highly transmissive toe drain beneath the ET cover to convey draindown and/or post-closure flow to the existing downgradient AA ponds.

A study conducted to determine expected soil moisture budget conditions, to arrive at the optimum cover thickness and to determine the potential for percolation of precipitation through the cover and into the leach pad, indicated negligible infiltration through the cover into the heap, contributing to drain flow. However, a permanent subsurface drain system (toe drain) has been designed to

collect and isolate any solution percolating through the cover and reporting to the downgradient edge of the lined pad surface.

Toe Drain

As described above, the ET cover was designed for minimal flux of precipitation through the ET cover. Nonetheless, a highly transmissive toe drain was incorporated beneath the ET cover, located along the downgradient (western) margins of the heap, and conveys any potential draindown or post-closure flows that may drain through the spent heap material to the AA ponds. The toe drain consists of a minimum 22-square feet of non-calcareous drain rock encapsulated in filter fabric, with an 8-inch diameter perforated drainpipe. This design provides for a flow rate of 710 gpm; the current draindown rate is approximately 12 gpm. This draindown rate correlates well with the modeled draindown rate.

Water Balance Model and Results

In order to design a capillary cover for the AA Block HLF, hydrologic simulations (modeling) were conducted. The daily evapotranspiration data along with the daily potential soil evaporation and precipitation were used to develop a spreadsheet model to simulate water fluxes through soil layers covered with vegetation according to a seed mix developed for the site. The model was run to study water fluxes under developing vegetative cover, in dry and wet years and under varying soil thicknesses.

The water balance model was run for local area conditions, and configured with two back-to-back wet years. The spreadsheet model determined a cover thickness of 3 feet would be adequate to prevent deep percolation after the effective vegetation cover reached about 33% (year 4), with percolation (leakage through cover) of 2.82 inches (37 gpm) in year 1. If cover thickness were increased to 4 feet, the leakage potential decreased to 0.49 inches (7 gpm). The use of a five-foot cover thickness eliminated the leakage potential in year 1 but provided no benefit from year 2 on. Based on the marginal reduction in flux, the four foot cover thickness was selected as the optimum cover thickness.

Draindown Solution Management

Draindown solution from the AA Pad flows to the AA Barren Pond. Solutions from the Phase I, II, III, and IIIA (Phase) leach pads, Leach Pad Observation Port (LPOP)-10 and the AA Pumpback Well (AA PBW) are directed to the Phase Composite Box (PCB). The PCB is a double-containment structure, with the manifold collection box primary containment being constructed of mild steel, surrounded by a precast concrete box for secondary containment.

Monitoring:

The following are associated with the AA Block HLF for monitoring of heap draindown, leach pad leak detection, and site groundwater.

Draindown

The PCB secondary containment is monitored weekly for fluid accumulation and reported as average daily accumulation in gallons per day. Discrete flow rate measurements and water quality samples are collected for LPOP-10, AA PBW, and the co-mingled Phase solutions.

The AA Pad Inlet (AAPI) and PCB draindown(s) are monitored individually for flow rate and water quality as the solution enters the AA Barren Pond.

Leach Pad Observation Ports (LPOPs)

Leak detection systems for the AA and Phases I and II pads are provided by LPOPs - which have been constructed to detect any solutions which may appear under the synthetic pad liner.

LPOPs 6 and 8 are downgradient of the leach pad on the western toe of the AA pad. LPOPs 9, 10, 11, and 12 are located on the western toe of the Phase pads on the northern end of the facility. LPOPs are monitored weekly for fluid accumulation and reported as average daily accumulation in gallons per day. As part of the closure of Post Pad #1 and the construction of the Bazza WRDF, LPOPs 1 thru 5, were either closed out or buried. LPOP-7 was abandoned during the closure of the AA Leach Pad.

The leak detection systems that are part of the Phases III and IIIA pad liners were monitored with Electronic Leak Detection Systems (ELDS), as well as physical leak detection ports beneath the solution collection ditches. The ELDS was taken out of service during closure of the AA Block HLP and has not been monitored since that time.

Ground Water Observation Ports (GWOPs)

GWOPs are monitoring wells used to monitor groundwater quality in the vicinity of the leach pads. GWOPs are monitored quarterly for Profile I parameters. GWOPs 9 and 12 are located on the eastern side upgradient of the Phase leach pads for establishing background groundwater quality. GWOP-13a is located west of the Phase leach pads for monitoring downgradient groundwater quality. GWOP-16b is downgradient of the solution ponds on the northwest side. GWOP-17b is upgradient of the solution ponds on the southeast end to establish groundwater quality upgradient of the ponds. GWOPs 1 thru 4 were

closed/buried during construction of the Bazza WRDF; GWOPs 5 through 8 and 14 were abandoned during closure of the AA Block HLF. There is no record of GWOP-19 and it is believed it was never constructed and the number was simply overlooked. GWOPs 10A and 11A are associated with the AA Tailings Impoundment.

Cutoff Trench

Cutoff Trench North Side (CTNS) and Cutoff Trench South Side (CTSS) were constructed downgradient of the four phased leach pads during commissioning of the Phase I ponds to intercept shallow groundwater drainage originating upgradient of the leach pads. Each trench has a monitoring point (CTNS and CTSS) located on the north and south ends, respectively, of the cutoff trench to monitor fluid flow rate and, if present, quality of that flow. To date, no solution from any source has ever reported to these trenches.

LPOP-10

In January 2008, the Permittee informed the Nevada Division of Environmental Protection (NDEP) that LPOP-10 had exceeded the permitted average daily flow over the fourth quarter of 2007 and the average daily flow for calendar year 2007. The Permittee submitted a Corrective Action Plan (CAP) as required by the NDEP in February 2008. The CAP included the installation of a permanent pumping system in LPOP-10 to minimize head on the secondary layer. The CAP also required installation and monitoring of a groundwater monitoring well (GWOP-18), located immediately downgradient of LPOP-10.

In May 2008, the Permittee submitted an Engineering and Design Change (EDC) for the construction of a double contained (pipe-in-pipe) drain line to convey the solution from LPOP-10 to the PCB. This allowed continuous pumping of the fluid rather than periodic evacuation to a water truck.

In February 2009, NDEP required submittal of a second CAP which was approved in June 2009. The second CAP expanded the groundwater investigation and included the addition of two new monitoring wells. GWOP-20, installed near the existing GWOP-12 to provide additional upgradient groundwater data, and GWOP-21, a vadose zone well, which was installed in November 2009 near GWOP-18 but at a 45 degree angle to extend under the heap leach pad. Soil samples taken during the drilling of GWOP-21 were used to evaluate the vadose zone below LPOP-10 for evidence of leakage through the LPOP-10 secondary layer.

The analysis of water sampled from GWOP-18 and GWOP-21 indicate process solution derived exceedances of the Profile I reference values for arsenic, magnesium, manganese, nitrate, selenium, sulfate, and total dissolved solids. As

a result, a Finding and Order of Alleged Violation (FOAV) was issued to the Permittee in April 2010. The Order required submittal of a revised CAP which included the installation of AA PBW and an additional downgradient monitoring well (GWOP-22).

AA PBW was constructed approximately 40 feet downgradient of GWOP-18 to a depth of 215 feet, and is screened over the 155 feet to 215 feet interval (see Table 1 below for well construction details). AA PBW commenced operation on October 19, 2010. In general, groundwater quality exceeds Profile I reference values for arsenic, manganese, nitrate, and selenium.

Table 1. – Monitor well construction and depth to water details

Well ID	Collar Elevation (ft. amsl)	Total Depth (feet)	Well Bottom (ft. amsl)	Depth to water (ft. from collar)	Groundwater Elevation (ft. amsl)	Screen Interval (feet)
GWOP-18	5616.99	200	5416.99	163.99	5453.00	175 - 195
GWOP-21 (as vertical)	5616	140	5476	131.5	5430.50	69.25 – 99.25
AA PBW	5616.25	227	5389.25	177	5439.25	155 - 215
GWOP-22	5613.94	185	5428.94	165.22	5448.72	155 – 195

GWOP-22 is located approximately 100 feet downgradient of GWOP-18.

Table 2 below provides solution concentrations only for constituents considered of interest or currently elevated. Average LPOP-10, GWOP-18, GWOP-21, AA PBW, and GWOP-22 solution concentrations are based on a simple average of all available analyses from initial well construction (first sampling) through the fourth quarter of 2012. The range reflects the lowest and highest values from all sampling events. GWOP-18, GWOP-21, AA PBW, and GWOP-22 wells have been monitored for water quality and depth to water since construction. LPOP-10 chemistry represents heap draindown chemistry of the Phase leach pads.

Table 2. – Comparison of average LPOP-10, GWOP-18, GWOP-21, AA PBW Constituents of Concern (COC) to GWOP-22, Inception to 4Q12

COC	**Unit**	**Average LPOP-10**	**Average GWOP-18**	**Average GWOP-21**	**Average AA PBW**	**Average GWOP-22**
Arsenic	mg/L	0.104 (0.036 – 0.231)	0.026 (0.009 – 0.052)	0.074 (0.018 – 0.154)	0.055 (ND – 1.17)	0.011 (0.004 -0.012)
Magnesium	mg/L	225 (150 – 256)	125 (25 – 170)	303 (260 – 350)	51.2 (41 -70.7)	33 (29 – 39)

Manganese	mg/L	22.3 (13-31)	0.0185 (0.005 - 0.061)	0.117 (0.061 – 0.234)	0.80 (0.005 – 26)	0.010 (0.005 – 0.347)
Nitrate	mg/L	324 (95.4 – 410)	88 (5.43 – 130)	248 (99 – 300)	14.1 (0.19 – 95)	7.5 (1.13 – 8.5)
Selenium	mg/L	1.25 (0.26 – 1.65)	0.324 (0.021 – 0.44)	1.11 (0.95 – 1.25)	0.053 (ND – 0.15)	0.023 (0.007 - 0.027)
Sulfate	mg/L	3590 (2700- 5500)	616 (142 – 980)	2435 (2100 – 3700)	137 (7.1 – 2390)	100 (70.8 – 150)
TDS	mg/L	6760 (5100 – 8030)	1596 (936 – 2200)	5360 (4200 – 19900)	390 (68-4140)	430 (327 – 480)
# Data Points		49	53	32	75	28

In August 2011, the Permittee submitted "Addendum 1 Final Permanent Closure Plan AA Heap Leach Pad Seepage" (Plan). This Plan included a fate and transport model and described additional proposed closure actions to address the observed seepage associated with the AA Block HLF. These actions consist of continued operation of the pumpback system, continued monitoring with revision as necessary, and review of the pumping systems effectiveness. This Plan was approved in February 2012.

Groundwater sampled in GWOP-22 has only rarely exceeded Profile I reference values and is considered background groundwater quality. As such, and acting as a plume sentinel well, the AA PBW system is successful in capturing and containing the AA Block HLF plume.

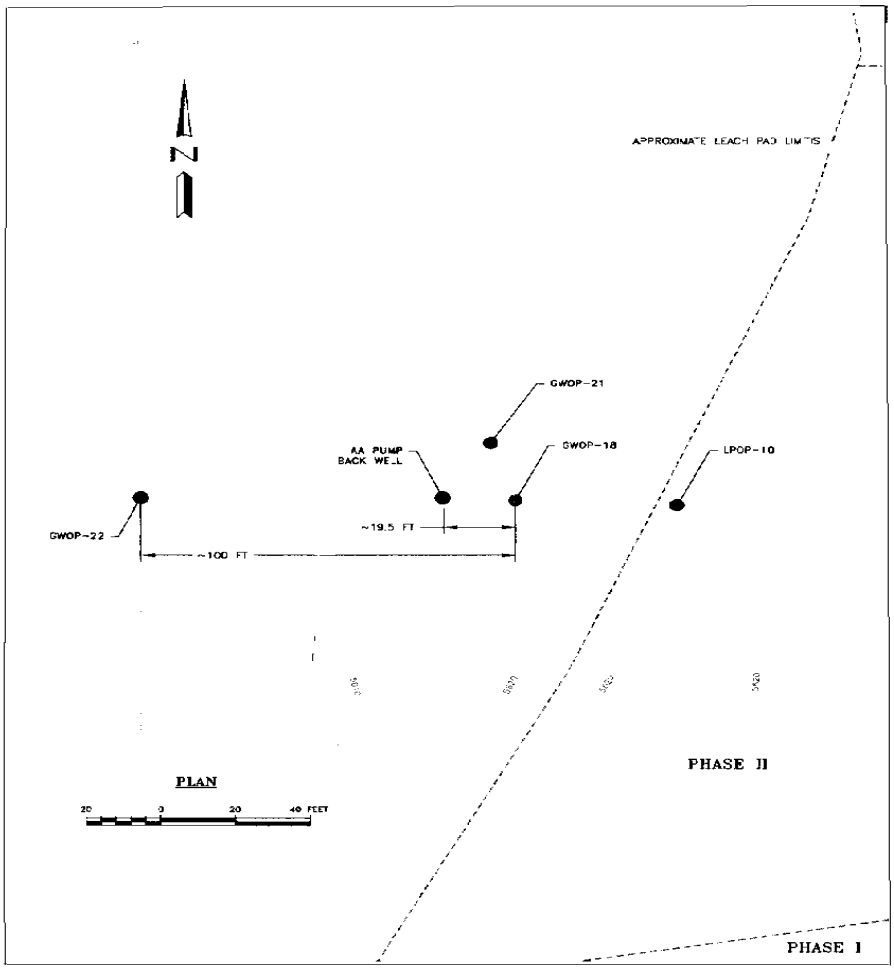
Following submittal and review of the mitigation portion of the Plan, the enforcement action was closed on 1 December 2011.

Monitoring wells related to the AA HLP and HLP Seepage, which will be monitored on a minimum quarterly basis, consist of the following:

AA-PBW, LPOP-10, GWOP-9, GWOP-12, GWOP-13a, GWOP-16b, GWOP-17b, GWOP-18, GWOP-20, GWOP-21, and GWOP-22.

Figure 1 below provides a well location map of the LPOP-10 associated Groundwater Observations Ports and AA PBW.

Figure 1. - Well Locations of GWOP-18, GWOP-21, GWOP-22, and AA PBW relative to AA Heap Leach Pad LPOP-10



AA Enrichment Solution and Freshwater Ponds

A total of six leach solution ponds were associated with the AA Block HLF. There were four ponds within the AA Pad leach system and two solution ponds within the Phase I II, III, and IIIA (Phase) expansions. The AA Enrichment Solution pond and the freshwater pond were closed in September 2012. The remaining four ponds were either closed or transferred to NEV0091029 following closure activities beginning in February 2000.

A Final Permanent Closure Plan (FPCP) for the AA Enrichment pond and the freshwater pond was submitted in February 2012 and approved in April 2012. The pond FPCP consisted of cutting the pond liners and folding the liner into the center of the pond to encapsulate any sludge that remains. The entire area will then be backfilled with clean non-Potentially Acid Generating (non-PAG) waste material, compacted, brought up to an elevation of 5,500 feet above mean sea level (AMSL), leveled, and eventually utilized for parking. The closure of the ponds, with the exception of backfilling to the 5,500 foot elevation, was completed in September 2012.

The AA barren pond (which has been incorporated into WPCP NEV0091029) is a double-lined facility, consisting of 80-mil HDPE for both the primary and secondary liners, with a capacity of 2.5M gallons, and is being used as a temporary flow-through catchment for the current 10 - 12 gallons per minute (gpm) of AA Block HLF solution draindown. Draindown reports to the process water system of the North Block operations (NEV0091029). Draindown is expected to continue to decline to less than 1 gpm by 2040. At that time, the pond will be converted to an evaporation cell and transferred back into NEV0090060.

AA Tailings Impoundment

The Carbon-in-Leach (CIL) tailings slurry has been historically routed to the two tailings impoundments - the AA Tailings Impoundment (AA Tails) and the North Block Impoundment. Only the AA Tails is included in WPCP NEV0090060. The North Block Impoundment is included in WPCP NEV0091029 and now receives all tailings produced.

The AA Tails is lined with native materials. In areas where the in-place soils have permeability greater than 1×10^{-6} cm/sec, a 12-inch thick compacted clay liner (permeability $<1 \times 10^{-7}$ cm/sec) has been installed. A one-foot thick sand/gravel blanket drain overlays all but an approximately 80 foot wide strip along the upper reaches of the entire clay liner. The clay liner is located in the deeper parts of the impoundment. A minimum of two feet of compacted material with a permeability of less than 1×10^{-5} cm/sec was placed over the blanket to minimize the hydraulic head imposed on the drain. A synthetic liner was placed over higher permeability zones within the north embankment area.

The surface of the supernatant pond of the AA Tails, which currently occupies an area of approximately 85 acres, is now well below the seven feet of freeboard required to contain precipitation resulting from the 100-year, 24-hour storm event.

An approximately 30 million gallon pool of supernate currently resides on the impoundment surface. This solution is the surge supply for the autoclave. As an interim stabilization measure to reduce the amount of windborne dust originating

from the AA Tails surface prior to development of a FPCP, the Permittee has placed a nominal 2-foot thick rock cover over the exposed tailings beach. This work was completed in 2010.

Approximately 3 acres of the AA Tails surface will be utilized for temporary stockpiles highly mineralized ore and magnetic separation tailings concentrate. The stockpiles will remain for approximately 5 years from initial placement of material(s). The ore stockpile has been constructed. Prior to construction and loading of the stockpiles, two vibrating wire piezometers (VWP) (AA-VWP-11-01 and AA-VWP-11-02) were installed directly beneath the ore stockpile. The magnetic separation tailings concentrate stockpile, which has not yet been constructed, will have one VWP (AA-VWP-11-03) installed directly beneath its footprint. The VWPs will be installed a minimum of 6 feet deep in the base tailing. Piezometer monitoring will be weekly for hydraulic head in feet of water.

AA Tails Seepage Collection Pond

The AA Tails Seepage Collection Pond is designed to collect seepage from the AA Tails embankment drains. This pond is lined with 40-mil HDPE which overlays a 12-inch layer of low-permeability clay and has a leak detection system. This pond only contains solution during periods of heavy rainfall or power upsets. The AA Tails Seepage Collection Pond also has the required capacity to contain the 100-year, 24-hour storm event. Under normal operating conditions, solution reporting from the embankment drains is pumped to the surface of the AA Tails and represents the reclaim solution (supernate), AA-TR. This solution is monitored quarterly for flowrate, Profile II, and the depth retained on the impoundment surface.

Solution Pond Observation Ports (SPOPs) are used to monitor the leak detection systems in this collection pond. The SPOPs consist of 12 inches of coarse sand between the synthetic liner and the low-permeability clay layer with a network of perforated HDPE pipes draining to the east and west ends. SPOPs are monitored using riser pipes located at the lower corners of each pond for the accumulation of fluids and reported as an average daily accumulation.

SPOP-5 and SPOP-9 are located south of the seepage collection pond and east of the AA Tails (downstream toe of the embankment). GWOPs 10a and 11a are located downgradient (west) of the AA Tails to monitor groundwater quality. GWOP-15a is on the southern end of the tailings facility. These observation ports are monitored quarterly for Profile I parameters.

SPOP-2 and SPOP-3 were abandoned as part of the recent closure activities related to the AA Enrichment Solution and Freshwater Ponds. SPOPs 6 through 8 were abandoned during the AA Facility HLP closure activities. SPOP-1 was

abandoned during closure of the Post Pad #1. SPOP-4 was transferred to NEV0091029.

Mill 4 Facility

The original WPCP for the Mill 4 Facility (NEV0089015) was incorporated into the Mill 4 Tailing Storage Facility 1 WPCP (NEV0092100) in June of 2001. The Mill 4 Facilities were constructed during the period 1988-1989. The mill building, a Caro's Acid system, and all ancillary pipes, tanks, and valves were located within secondary containment. All mill facilities have been closed and removed. The Mill 4 Facility and Mill 4 were sold by Newmont Mining Corporation to the Permittee in late 2005. The Mill 4 Facility has been in final permanent closure since August 2004.

Mill 4 Tailings Storage Facility 1 (Mill 4) **and Seepage Collection Pond**

Mill 4 was previously permitted under WPCP NEV0092100 to Newmont Gold Corporation. The Permittee submitted an EDC in December 2009 for transfer of these facilities from Permit NEV0092100 to Permit NEV0090060. Transfer was completed in May 2010.

Construction of Mill 4 began 13 March 1989, and deposition of tailings began 1 June 1989. Although a pre-regulation facility, the design meets the applicable requirements of the NAC 445A regulations for tailings storage facilities, including the 12-inch thick low permeability soil layer (1×10^{-6} maximum permeability). Mill 4 was constructed over compacted low permeability soils with draindown water being conveyed through an underdrain blanket to an underdrain collection pond constructed with primary and secondary 80-mil HDPE liners. A geonet between the liners provides a flow path to convey leakage to the leak detection sump. Initially, the starter embankment extended to an elevation of 5,505 feet AMSL and was subsequently raised to 5,530 feet AMSL in 1990, and 5,559 feet AMSL in 1991. Mill 4 covers approximately 102 acres and contains some 12 million tons of material. The facility was used regularly for tailings disposal until June 1993, after which its use was limited to brief periods when required for maintenance of the Mill 4 Tailings Storage Facility 2 prior to the acquisition of the Mill 4 by the current Permittee.

The Mill 4 embankment was constructed to withstand a 100-year, 24-hour precipitation event, using the upstream construction method, with an initial upstream slope of 2.5:1 and an initial downstream slope of 2:1. This is an earth- and rock-fill structure consisting of two zones, 'A' and 'S'. Zone 'A', the retaining structure, was constructed of random fill (mine waste material rock consisting of clayey silt to fractured rock), delivered and compacted in 24-inch thick layers by haul trucks. Zone 'S', the seal zone, is constructed of QA/QC-documented, low permeability (1×10^{-6} cm/sec), fine-grained soils (silts and

sandy silts) that were borrowed from within the Mill 4 basin area, moisture conditioned, bentonite- or clay-amended as required, and compacted in nominal 12-inch thick lifts. Density and moisture tests were performed by nuclear density and sand cone methods. Zone 'S' is 20 feet wide and was extended a minimum 2 feet into low-permeability, over-consolidated silts along the entire length of the embankment to form a cut-off trench. Zone 'S' was ultimately covered with a layer of 10-ounce geotextile to minimize erosion prior to deposition of a protective layer of tailings material.

The tailings storage basin is covered with 12 inches of QA/QC-documented, low-permeability (1×10^{-6} cm/sec), fine-grained soils borrowed from within the Mill 4 basin area, moisture-conditioned, bentonite- or clay-amended as required, and compacted to 95% modified Proctor density in nominal 6-inch thick lifts. The area beneath the supernatant pond received 18 inches of the same low permeability soil to further enhance containment. The entire prepared Mill 4 basin is covered with a nominal 12 inches of drainage blanket material containing 3.9-12.7% minus 200-mesh fines. A network of 8-inch, 6-inch, and 4-inch diameter corrugated polyethylene tube (CPT) underdrain pipe was installed within v-trenches cut into the drainage blanket on 30-foot centers. A layer of 6-ounce geotextile covers the drainage blanket in the supernatant pool area to prevent migration of fines.

Draindown solution (UCP), currently flowing at approximately 1 gpm, reports to the Seepage Collection Pond (UCPRL) and is pumped to the North Block seepage collection pond. The seepage collection pond has an operating volume of 330,000 gallons with 3 feet of freeboard and a total volume of 480,000 gallons. The seepage collection pond base and embankment are constructed in a 2-foot-deep cut area which was backfilled with waste rock and covered with fine-grained soils. The base and embankments were moisture conditioned and compacted to a minimum 95% of maximum dry density prior to being covered with a layer of 6-ounce geotextile. The geotextile was then covered with a 60-mil HDPE secondary liner, overlain by geonet, which was in turn covered with a primary liner of 60-mil HDPE. The interstitial geonet is hydraulically linked by a 6-inch diameter PVC pipe to the external Leak Collection and Recovery System (LCRS) sump, Underdrain Collection Pond Leak Detection Sump (UCPS), equipped with a submersible pump. Any fluid reporting to the sump can be pumped back to the UCPRL.

Groundwater quality in the area of Mill 4 is monitored by upgradient wells MW-8, MW-9D, and MW-9S. Downgradient monitoring wells include MW-1D, MW-1S, MW-6, MW-7, MW-10, TB-5, and TB-9. As a result of the pit dewatering program, all wells have been "dry" since at least June 2005 In March 2011, the Permittee submitted an EDC for removal and abandonment of eight of the ten monitoring wells; MW-1S, MW-6, MW-7, MW-9S, MW-9D, MW-10, TB-5, and TB-9; NDEP approved the EDC in May 2011; well abandonment was completed

in November 2011. Also in May 2011, monitor wells MW-8 and MW-1D were transferred to WPCP NEV0091029. No direct monitoring of the Mill 4 groundwater wells will be performed in the AA Block permit. Monitoring is addressed in WPCP NEV0091029.

Fluid head pressures in the Mill 4, which are to be maintained below an average of two feet of hydraulic head, are measured by a network of vibrating wire piezometers. Mill 4 utilizes two underdrain piezometers (P2 and P5) and two piezometers within the tailings solids (P3 and P4).

An FPCP for Mill 4 was submitted in December 2012 and is currently under review. In preparation for closure of the Mill 4 facility, the Permittee has begun stockpiling Carlin formation (Carlin) materials from the TSF3 excavation on the Mill 4 surface for closing the facility with a Carlin cap. This area will now also be utilized to temporarily stockpile additional colluvium and Carlin material that will be used as buffer zone materials for the phased construction of TSF3 over the next few years. The total area the stockpiles will encompass is approximately 14 acres.

Mill 4 is protected from storm run-off by a diversion berm placed between the tailings embankment and Brush Creek.

Post Pad #1

Prior to construction of the Bazza WRDF, the Post Pad #1 heap leach facility was operated by Western States Minerals in the approximate southeast corner of the current Bazza location. The heap, which encompassed an area of approximately 19 acres, was operated from August 1986 to July 1989. The heap was detoxified using sodium hypochlorite and hydrogen peroxide as rinse solution until the WAD cyanide concentration was less than 0.2 mg/L.

Two process ponds were associated with this facility. The ponds were constructed of 40-mil HDPE primary over a compacted low-permeability soil layer with a 6 inch sand layer leak detection system. Draindown solution was transported by water truck to the AA Tails for disposal. By the latter part of 1990, draindown flow had decreased to almost zero. The ponds were permanently closed in 1991.

The Post Pad #1 was closed by Barrick in 1991 and covered by construction of the Bazza WRDF. The heap draindown pipe and solution is managed as part of Newmont's North Area Leach Operations NEV0087065. Newmont acquired the effluent pipe discharge in a land exchange with Barrick in 1999.

Bazza Waste Rock Disposal Facility

The Bazza WRDF has a surface area of approximately 2,500 acres and is located west and southwest of the Betze-Post pit. The Bazza WRDF received waste rock from the Betze Post pit as well as minor amounts from the underground mine operations at Meikle and Rodeo Creek. The Bazza WRDF was designed and operated to comply with applicable mining and reclamation requirements and to prevent the degradation of waters of the State.

Beginning in the early 1990s, an in-pit geochemical testing and classification program was initiated to facilitate selective handling of Potentially Acid Generating (PAG) and non-PAG waste rock. The program of waste rock classification, segregation, and selective placement was designed to reduce the occurrence of acid rock drainage and to prevent releases of surface runoff, seepage, or infiltration that may have a potential to degrade waters of the State. The program was based on data from more than 140 humidity cell tests on a variety of waste rock types and static tests on over 30,000 composite exploration drill hole samples within the Betze-Post Pit. Results from testing indicate a correlation between the acid neutralization potential/acid generating potential (ANP/AGP) ratio, net carbonate value (NCV), and sulfide sulfur. The results indicate that waste rock having an ANP/AGP ratio greater than 1.2:1 will not produce acid, which is therefore classified as non-PAG. Material with an ANP/AGP ratio less than 1.2:1 and with a sulfide sulfur value greater than 0.3% is classified as PAG.

PAG and non-PAG waste rock disposal has been facilitated through computerized truck dispatching, recording, and verification systems. Monitoring components associated with waste rock management have included ongoing acid-base accounting on waste rock samples collected from the mining operations and annual composite samples of PAG and non-PAG material. Meteoric Water Mobility Procedures (MWMP-Profile I) have been performed annually on the composite samples as well to further characterize the waste rock.

A conceptual closure design of the Bazza facility was included in the 2004 Waste Rock Management Plan (WRMP) update. The Bazza WRDF Final Permanent Closure Plan (FPCP), submitted in March 2007, incorporates an evapotranspiration (ET) cover into the design. Specifically, the 2007 FPCP update included the following elements:

- Use of a layered cover comprised of topsoil and Carlin Formation (Fm) materials designed to minimize or eliminate infiltration of water and oxygen;
- A multi-layer cover consisting of 6 feet of Carlin Fmand topsoil material to be placed over the approximately 498 acres of encapsulated PAG cells;

- A minimum of 12 inches of cover consisting of either run-of-mine Carlin Fm material or a combination of topsoil and Carlin Fm material over the remainder of the waste rock facility.

Results of modeling of the soil cover, based on VADOSE/W calibration to the AA Block HLF cover, indicated that the proposed Bazza WRDF soil cover would provide an effective barrier to movement of meteoric water into PAG waste rock. Additionally, monitoring of the AA Block HLF cover over the last approximately 12 years indicates that the cover is functioning as designed and evaluation of available geologic materials indicates that this design approach can be applied to the Bazza WRDF.

The Bazza WRDF reached the end of its operational life in 2009, and closure activities have been initiated. Waste rock disposal has shifted to the Clydesdale Waste Rock Facility (a component of NEV0091029).

Portions of the Bazza WRDF have been utilized for other mining related activities, i.e., the bioremediation cell, several ore stockpiles, and replacement transformer storage. Closure requirements for the bio-remediation cell are addressed in NEV0091029. The Permittee is currently in the process of removing ore stockpiles; current plans for use of the Bazza surface consist of a temporary storage area for new transformers and the existing Class III waivered landfill, which shall remain in-place until final Goldstrike Mine closure (currently estimated to be 2050).

Tanks and Bins

All tanks and bins that contain fuel, chemicals, or process solutions are managed under NEV0091029.

C. Receiving Water Characteristics

The Permittees mining and processing operations are located on the southwest flank of the Tuscarora Mountains in north-central Nevada. The facilities lie in the Little Boulder Basin, which is a topographic feature that contains the Brush, Rodeo, and Bell creek drainages. The Goldstrike Project area elevations, which include the AA Block, range from about 5,100 feet to 5,926 feet AMSL. The terrain in the vicinity of the Goldstrike Project is typical of the Basin and Range physiographic province, and is dominated by north-trending fault-block mountain ranges that expose sedimentary rocks.

Surface Hydrology

A detailed description of the regional surface hydrology can be found in the Assessment of Area of Review for the AA Block. A detailed description of the site-specific surface hydrology can also be found in referenced documents listed in the WPCP application.

In general, surface runoff from the AA Block Project area flows west and southwest via Brush and Rodeo creeks. The water quality of these creeks has been established via permit requirements. In general, Brush Creek background water quality constituent concentrations meet Profile I reference values. Rodeo Creek typically shows higher arsenic, iron, and manganese background concentrations. Surface flow in these drainages infiltrates into the alluvium beneath and adjacent to the creeks.

Hydrogeology

Shallow alluvial deposits are found primarily adjacent to drainages within the project area. Subsurface drainage within these deposits generally appears to follow the course of these drainages to Rodeo Creek or into the underlying or adjacent Carlin Formation. The alluvial deposits generally consist of interbedded clay, silt, sand, and gravel deposited by channel and overbank flows of the creek. The permeability of the alluvium ranges from 1×10^{-4} cm/sec to 8×10^{-2} cm/sec.

The Carlin Formation, which is found east and north of Rodeo Creek, underlies the Little Boulder Basin regionally and extends under the AA Tails, Mill 4, and the AA Block HLF. This formation has a regional thickness of 600 feet and consists of materials that generally exhibit low permeabilities. In the AA Block Project area, Carlin Formation permeabilities range from 5.2×10^{-6} cm/sec to 8.3×10^{-5} cm/sec. The variable nature of the formation results in lenses of more permeable material along the bedding planes within the formation. Very little vertical flow occurs and the Carlin Formation acts as an aquitard, producing locally confined conditions within the underlying Vinini Formation. Most of the recharge of the Carlin Formation is derived from direct infiltration of precipitation and snow melt from the Tuscarora Mountains. This source of local recharge is directly responsible for variations in groundwater quality in the Carlin Formation as opposed to underlying metasediments.

The original groundwater gradient beneath this area was northeast to southwest, with a pre-mining groundwater elevation of approximately 5,320 ft. AMSL. However, dewatering operations have reduced local groundwater elevations to approximately 3,596 ft. AMSL below mining operations (3,600 feet), and have resulted in a localized zone of groundwater depression that is observed west-southwest of the AA Block facilities. Continued dewatering activities in the

project area are expected to maintain the water table at depth (approximately 1500 to 2330 feet below ground surface) in the AA Block area.

Well Locations in the Project Area

Numerous groundwater monitoring wells and piezometers exist within the project area. The locations of the wells within the AA Block area can be found in the WPCP application. These wells are monitored, sampled, and results are submitted as required by the Permit.

Well EW-38 provides potable water to the AA Block facilities.

D. Procedures for Public Comment

The Notice of the Division's intent to issue a permit authorizing a facility to close subject to the conditions contained within the permit is being sent to the **Elko Daily Free Press** in Elko for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing within a period of 30 days from the date of the public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, and any affected intrastate agency, or any interested agency, person, or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. Any public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

E. Proposed Determination

The Division has made the tentative determination to renew the proposed permit.

F. Proposed Effluent Limitations, Schedule-of-Compliance, and Special Conditions

See Section I of the permit.

G. Rationale for Permit Requirements

Ongoing closure related investigations and remediation activities continue and the results of these investigations/remediation activities may induce changes to existing component closure plans and WPCP rationale/requirements.

Seepage occurring at the AA Block HLF will continue to be actively pumped and monitored. These activities will occur until it can be demonstrated that water quality is stable, meets the Profile I reference values and will not degrade waters of the State.

The primary methods used for identification of escaping process solution will be required routine monitoring of leak detection systems, as well as routine sampling of downgradient monitoring wells. Specific monitoring requirements can be found in the Part I.D of the WPCP.

Facilities will be monitored and operated in accordance with the permit conditions and the operating plans.

H. Federal Migratory Bird Treaty Act

Under the Federal Migratory Bird Treaty Act, 16 U.S.C. 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 CFR 10, April 15, 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Karl McCrea

Date: March 25, 2013

Revision 01: October 2005 – BC

Revision 02: Transferred Mill 4 facilities with general re-write for closure status of components – PE 1/2010

Revision 03: Removal of "dry' monitor wells associated with Mill4: MW-1S, MW--6, MW-7, MW-9S, MW-9D, MW-10, TB-5 and TB-9. Transfer of monitor wells MW-1d and MW-8 to NEV0091029. Addition of AA Tails piezometers for ore stockpile monitoring. KM 9/2011; Addition of AA Pond and Mill 4 FPCP;