FACT SHEET
(Pursuant to NAC 445A.401)

Permittee Name: **Round Mountain Gold Corporation**

Facility Name: **Gold Hill Project**

Permit Number: **NEV2010110 (New Permit 2011-Rev. 00)**

A. Description of Facility

Location: The Round Mountain Gold Corporation (RMGC)-Gold Hill Project (GHP) is located in Big Smoky Valley in northwest Nye County, Nevada, approximately 45 miles northeast (by air) of the town of Tonopah and 54 miles south (by air) of the town of Austin, in the historic Round Mountain Mining District (also referred to as the Mt. Jefferson and Jefferson Canyon mining districts). The mine and process facility are located approximately five miles north of the RMGC Smoky Valley Common Operation (SVCO), Water Pollution Control Permit (WPCP) NEV0087052.

The GHP site is located on unpatented lode claims owned or controlled by RMGC and public lands administered by the Bureau of Land Management, Battle Mountain District-Tonopah Field Office, all within portions of Sections 19, 28, 29, 30, 31, 32, and 33 of Township 11 North, Range 44 East; Sections 4, 5, 6, 8, and 17 of T10N, R44E; and Sections 24, 25, and 36 of T11N, R43E, Mount Diablo Baseline and Meridian.

The GHP is a 50-percent partnership between RMGC, a wholly-owned subsidiary of Kinross Gold Corporation and Barrick Gold Corporation. RMGC is the operator and Permittee of record for the GHP.

Site Access: The GHP site can only be accessed through a private connector road (referred to by RMGC as the Transportation/Utility Corridor) that exits the north end of the SVCO site. From Tonopah, proceed east on U.S. Route-6, six miles to the junction of State Route (S.R.)-376. Proceed north on S.R.-376 approximately 49 miles to the SVCO mine site entrance. From Austin, proceed east on U.S.-50, 12 miles to the junction of S.R.-376. Proceed south on S.R.-376 approximately 58 miles to the SVCO mine site entrance.

Characteristics: The GHP is being developed in conjunction with the Round Mountain Expansion Project (RMX) at the SVCO. The project will include the following:

- A 1.1-mile long, 500-foot wide Transportation/Utility Corridor between the SVCO and GHP;
- A 222-acre open pit (to be developed in two phases);
- A Waste Rock Dump (to be constructed in two phases);
- A 300-acre Heap Leach Facility (to be constructed in two phases), including a portable crushing circuit to be located on containment within the Heap Leach Pad

(HLP), one double-lined process pond, one double-lined event pond, collection and conveyance pipelines, lined ditches, pumps, reagent storage, and associated controls;
- An Adsorption, Desorption, and Recovery (ADR) Plant, including a Carbon-in-Column (CIC) Circuit, Retort and Refinery;
- Internal haul roads and secondary roads;
- Production and dewatering wells, their associated piping systems and a single-lined Fresh Water Pond; and
- Ancillary facilities including, but not limited to: stormwater controls and diversion structures; lime silos and a lime slaker; and fuel storage/dispensing facility and other support facilities.

Groundwater at the GHP site averages 150 feet below ground surface (feet bgs) and will require implementation of a dewatering program to facilitate pit development. The Permittee intends to reintroduce dewatering water not needed for consumptive purposes into the local groundwater basin through the use of Rapid Infiltration Basins (RIBs). The RIBs associated with the GHP will be permitted under a separate WPCP, to be submitted under separate cover at a later date.

The GHP is authorized to process up to 6.0 million tons of gold and silver-bearing ore annually using chemicals. The facilities at GHP are required to be designed, constructed, operated, and closed without any release or discharge from the fluid management system except for meteorological events which exceed the design storm event.

B. Synopsis

History: The Gold Hill deposit was discovered about 1910, during the same time period as the Round Mountain deposit discovery. Historical records indicate that most of the underground development and production at the Gold Hill site occurred between 1930 and 1933, when a 500-foot deep shaft and several drifts were developed along the gold-mineralized veins. The mine was closed during the Second World War under the "Essential Materials Act of 1942" by the War Materials Board and did not re-open following the war.

Beginning in the mid 1970's, Bar Gold Corporation, Nevada Star Resources, Noranda, Cordex Exploration Company, Homestake Mining Company, and most recently RMGC conducted exploration, sampling, and mapping programs in the Gold Hill area. Encouraged by the results of their efforts, RMGC submitted a WPCP application for the GHP on December 23, 2010.

Geology: The GHP is located on the western margin of the Toquima Caldera Complex and straddles the fault boundary between the outcrop-dominated range to the east and the alluvium-covered pediment to the west. Approximately 70 percent of the GHP area is covered by alluvium and pediment gravel which blankets the bedrock surface in the GHP area. Paleo-channels and topographic breaks are evident in outcrop, trenches, drilling sumps, and in drill sections. The alluvium thickness ranges between 50 and 250 ft east of the

GHP site and reaches a thickness of 650-ft at the western-most extent of the project area. The alluvial sequence is characterized as poorly stratified with channel deposits, well-rounded cobble and boulder layers, sand and clay beds, and poorly stratified flow deposits.

Bedrock outcrop in the GHP area consists of poorly to moderately welded tuff referred to as the Gold Hill member. At depth, the welded tuff grades into a densely welded tuff referred to as the Surprise member, which crops out east of the Toquima Shaft. Mineralization in the Gold Hill area follows a generally east-west striking, steeply dipping fault-fracture set. This trend is cross-cut by the north-south trending range bounding structures.

Major rock types encountered within the Gold Hill Area include Tertiary igneous rocks of the southern Toquima Range. A rhyolite intrusion occurs at depth and below the Gold Hill main zone and crops out north and south of the Gold Hill Area along the margin of the Toquima Caldera Complex. This unit consists of devitrified, flow-banded rhyolite porphyry within feldspar and quartz phenocrysts and disseminated fine-grained pyrite.

Hydrology: The Big Smoky Valley is best characterized as an arid drainage basin where precipitation is generally insufficient to support any perennial stream flow. The few streams that drain the mountain ranges are generally intermittent. When these ephemeral drainages do flow, they carry precipitation runoff which normally infiltrates into the alluvial fans before it reaches the valley floor. There is no continuous surface drainage along the axis of the valley, although there are several distinct playa areas. Several intermittent streams flow into these sinks.

Regional Groundwater Hydrogeology: The project area is located within the Northern Big Smoky Valley Hydrographic Basin (designated 137B) with only a small portion of the project area extending south into the Southern Big Smoky Valley Hydrographic Basin (designated 137A). The project area overlaps the basin-and-range fault boundary between the outcrop-dominated Toquima range to the east and the alluvium-covered pediment to the west. The majority of the project area is covered by alluvium and pediment gravels derived from volcanic and granitic bedrock. The basin fill alluvial deposits thicken towards the center of the basin, where they are as much as 5,000 feet thick. These deposits consist mostly of unconsolidated gravel, sand, silt, and clay lenses.

Monitoring wells in the area indicate that saturated alluvium exists along the western side of the current SVCO Pit and along the western side of the proposed GHP pit under unconfined or semi-confined conditions. The natural hydraulic gradient in this alluvial material is east to west, from the range front towards the center of the valley. Pumping for dewatering of the SVCO Pit has locally reversed this gradient to the west of the SVCO Pit. As the alluvium thickens to the west and becomes generally more permeable, the gradient flattens, and a slight northward component of flow is apparent in the middle of the valley, where the alluvium is estimated to be as thick as 5,000 feet.

Volcanic, metasedimentary and granitic bedrock units are exposed in the mountain ranges on the eastern and western sides of the Big Smoky Valley basin. Groundwater flow in these bedrock units primarily occurs in fracture zones and is locally compartmentalized and discontinuous as a result of various geologic structures and features. As a result of the compartmentalization, the water table in the bedrock varies significantly across structures and features and groundwater flow over wide areas is restricted.

Gold Hill Area Hydrogeology: Four main hydrogeologic units occur in the Gold Hill Area including: 1) alluvium unit; 2) ash fall tuff unit; 3) sinter unit; and 4) Mt. Jefferson Tuff unit.

The alluvium unit consists of unconsolidated and semi-consolidated gravel, sand, and silt. It is relatively thin and unsaturated over most of the pit area and east of the pit. The unit thickens to the west, and along the west pit wall the alluvium unit has relatively low hydraulic conductivity and a saturated thickness of about 100 to 150 feet.

The ash fall tuff unit dips to the west and underlies the alluvium along the west pit wall and west of the pit. The unit is displaced by the range-front fault and does not exist east of the fault or east of the pit. This unit consists of 100 to 300 feet of volcanically derived clays and non-welded rhyolite ash that forms an effective low-permeability confining layer below the alluvium and above the underlying sinter unit.

The sinter unit underlies the ash fall tuff unit west of the Pit. Dipping to the west, it consists of approximately 100 feet of hot springs sinter that is highly fractured and contains numerous vugs. The sinter unit is not present east of the range-front fault and east of the pit area. The unit is very permeable and can provide well yields in the hundreds of gallons per minute. A pumping test conducted in the sinter indicated that the unit is laterally discontinuous, highly confined, and receives limited recharge. Its confinement is due to the overlying low permeability ash fall tuff unit and the underlying Mt. Jefferson tuff unit that has low to moderate permeability. The saturated sinter unit will be dewatered in advance of pit excavation.

The Mt. Jefferson tuff unit is an extensive deep geologic unit composed of welded tuff. The unit has low to moderate permeability. The Mt. Jefferson tuff unit underlies saturated sinter west of the range-front fault and unsaturated alluvium east of the fault.

The local groundwater table is present in the alluvium unit west of the pit and in the Mt. Jefferson tuff unit east of the pit. In the alluvium unit, the water table elevation is about 6,150 feet above mean sea level (amsl) along pit west wall, dropping to about 5,700 ft amsl 2,500 feet west of the pit. Further west, the alluvium water table is very flat, with an elevation of about 5,685 ft amsl. The interpreted groundwater flow direction is generally west from the pit area toward the central portion of basin.

East of the pit, the water table in the Mt. Jefferson tuff unit slopes to the west ranging in elevation from 6,275 ft amsl east of the pit to about 6,180 ft amsl in the central pit area. Further west, the sinter unit is confined with a potentiometric surface of about 6,175 ft amsl. Flow between the sinter and the alluvium is anticipated to be very low due to confinement provided by the low permeability ash flow tuff unit.

The upper-most groundwater beneath the Phase 1 Waste Rock Dump will be in the alluvium unit at depths ranging from 360 to 450 feet below the base of waste rock (from west to east). Below the west end of the Phase 1 Heap, the depth to alluvial groundwater will be about 470 feet. Below the east end of the heap, the groundwater table may be present in alluvium or bedrock at a depth on the order of 150 feet.

No significant surface water resources are found upgradient or downgradient of the Gold Hill waste rock dumps. Minor drainages on the eastern side of the Gold Hill area will be intersected by stormwater diversion channels to divert stormwater around the facilities.

Proposed Mining Operations: The proposed GHP will be an open pit mining operation, designed to produce up to 16,700 tons per day (tpd) and 6 million tons per year (tpy) of gold and silver bearing ore. The GHP pit will be developed in two phases over a period of four to six years.

The ore will be hauled from the GHP pit to the heap leach pad where it is either placed directly on the HLP or to a lined staging area where it is stockpiled and then crushed to minus 6 inches and then placed on the HLP. The total amount of ore mined during Phase-1 pit development and placed on the Phase-1 HLP is estimated between 13.3 and 27.8 million tons, of which approximately 96 percent of the HLP ore will be oxide.

The proposed Gold Hill Mine will be located in a "range-front" setting, similar to that of the nearby SVCO pit and utilize similar surface mining techniques. Bench heights will be up to 35 feet and haul road widths will range between 90 and 140 feet. Phase-1 will have a pit floor elevation of 5,930 feet (amsl) and 255 feet below ground surface (bgs) within the deepest section of the pit. The second and final phase of the GHP pit will have a pit floor elevation of 5,675 feet amsl and 650 feet bgs within the deepest section of the pit.

Alluvial water levels range between 6,180 feet amsl along the range-front wall to 5,685 feet amsl in the valley fill west of the pit. Water elevation in the volcanic bedrock and sinter units range from 6,380 to 6,180 feet amsl near the Gold Hill Pit. Active dewatering will occur primarily in the saturated sinter unit (refer to the section ***Dewatering Water Management*** for additional details).

Ore and Waste Rock Characterization: Four ore and waste rock types have been identified within the Gold Hill area. These include undifferentiated alluvium, Tertiary rhyolite tuff, sinter, and undifferentiated Mt. Jefferson tuff. Based on the current mine plan, waste rock material from the Gold Hill pit will be predominantly Mt. Jefferson tuff and alluvium (over 90 percent combined) with a much smaller percentage comprised of sinter and rhyolite tuff. The Gold Hill ore is hosted primarily in the Mt. Jefferson tuff unit. In general, the rock types at Gold Hill typically contain higher sulfide and fewer carbonate phases than observed at the SVCO, resulting in an overall higher potential for acid generation and metals mobility.

A geochemical characterization program was performed on representative samples of the Gold Hill ore and waste rock. The program included Meteoric Water Mobility Procedure (MWMP) testing, Acid-Base Accounting (ABA), and Humidity Cell Testing (HCT).

Based on ten HCT sample results, three samples (sinter ore, Mt. Jefferson tuff ore, and Mt. Jefferson tuff waste) displayed potential to produce acidic conditions in a natural weathering and oxidizing environment. However, further testing showed that base amendment addition required during the cyanidation processing was shown to mitigate acid production for the two ore samples identified as strong acid producers. One sample (Mt. Jefferson tuff waste) displayed potential to produce moderately acidic conditions, and two other samples (rhyolite tuff waste and Mt. Jefferson tuff waste) displayed potential to produce weakly acidic conditions.

Four samples (Mt. Jefferson tuff waste, Mt. Jefferson tuff ore, alluvium, and rhyolite tuff waste) displayed a greater potential to neutralize acid in a natural environment. In general, predictions of acid-generating potential based on ABA data were corroborated by the material behavior in the HCTs. Samples which were classified as uncertain or PAG based on ABA data were generally net neutralizing or weakly acid-generating following HCTs. Samples showing net neutralizing potential following HCTs were classified as inert material.

Based on the whole rock chemistry analyses, the Gold Hill ore and waste rock contain elevated concentrations of antimony, arsenic, manganese, mercury, molybdenum and silver; elevated levels of barium, beryllium, cadmium, lead and/or lithium were also observed in some samples of rhyolite tuff, sinter or Mt. Jefferson tuff. The Mt. Jefferson tuff samples typically contain a wider range of variability compared to the alluvium, rhyolite tuff and sinter.

MWMP test results from samples of Mt. Jefferson tuff show elevated aluminum, antimony, arsenic and fluoride concentrations above the Profile I reference values. Potential for constituent release increased with increasing acid production once acid conditions were established during kinetic testing. Constituent concentrations were above the Profile I reference values, for aluminum, antimony, arsenic, beryllium, cadmium, iron, lead, manganese, nickel, sulfate, TDS and thallium. Potential for constituent release was minimal from net neutralizing samples, and elevated constituent concentrations were limited to aluminum, antimony, arsenic and manganese. This is consistent with whole rock analyses and MWMP test results.

The following conclusions can be made regarding the Gold Hill ore and waste rock:

- The alluvial material is non-acid generating with ANP:AGP ratios consistently greater than 3. This material may be utilized as construction aggregate. The small number of the rhyolite tuff samples tested that had ANP:AGP ratios of less than 3 will be and managed as designated waste pursuant to the Waste Rock Management Plan (WRMP). Refer to the section ***Waste Rock Management*** for additional details).

- The Mt. Jefferson Tuff material exhibits a wide range of constituent variability with a majority of the samples exhibiting PAG behavior with ANP:AGP ratio less than 3. Mt. Jefferson tuff waste material will be segregated and managed as designated waste pursuant to the WRMP. Refer to the section ***Waste Rock Management*** for additional details).
- The sinter unit demonstrates a variable potential for acid generation. Waste material will be managed in accordance with the WRMP. Refer to the section ***Waste Rock Management*** for additional details).
- Less altered samples generally contained less pyrite either through weathering to oxides or a lack of primary pyrite.
- Carbonates were not present in all samples, even in the non-PAG samples which showed strongly neutralizing conditions in HCTs, although some calcite was observed in secondary vein let structures and could be considered as available for reaction.
- HCT data indicate leachate chemistry ranging from alkaline to acidic and are a reliable indicator of actual weathering behavior. HCT results are generally consistent with the ABA interpretation of the same sample; PAG samples resulted in acidic leachates, uncertain ABA resulted in a mix of alkaline and acidic leachates, and Non-PAG and inert samples resulted in alkaline leachates.
- Fifty-eight percent of the waste rock and ore samples from Gold Hill had an ANP:AGP ratio of greater than 3:1 and are considered no-PAG.
- The remaining 42 percent of ore and waste samples were interpreted as PAG material (33 percent PAG, 9 percent uncertain).
- Six percent of the waste rock and ore samples from Gold Hill are considered non-PAG (3 percent inert, 3 percent non-PAG).
- Ninety-four percent of the ore and waste rock samples were classified as PAG (2 percent PAG, 92 percent uncertain).
- Gold Hill HCT results indicate that materials are highly variable with respect to acid generation potential, with the Mount Jefferson tuff accounting for 54 percent of the total rock types. In general, the alluvium contributes the majority of the non-PAG material (39 percent) with the Tertiary volcanics (rhyolite tuff, sinter, Mt. Jefferson tuff) accounting for the remaining 61 percent of variable material, ranging from strongly non-PAG, to strongly PAG.
- Thirty nine percent of the waste rock mass from the Gold Hill pit will be alluvium.
- The alluvium presents low potential for acid generation or impacts to the environment and will not require special consideration for mining or closure. The alluvium would be suitable for use as construction material.
- The rhyolite tuff represents about 2 percent of the waste rock and also shows low to moderate potential for acid generation and environmental impacts. No special consideration for mining or closure is anticipated, based on the environmental geochemistry of this material. The rhyolite tuff may not be suitable for construction, however, due to the minor potential for metals leaching.
- The Mt. Jefferson tuff unit comprises 55 percent of the Gold Hill waste rock. The Tertiary sinter formation comprises a small portion of the waste rock (4 percent).

These units showed the most variability and highest potential for environmental impacts.

- A majority of the Mt. Jefferson tuff material will require diligent management to include minimizing contact with water and not using this material for construction, operational, or closure purposes.
- Ore material consists predominantly of the Mt. Jefferson tuff (93 percent) mineralized unit. Much of this material will be acid-generating and is expected to have potential for metal release in concentrations that may affect receiving water quality. Ore placed on a heap leach facility will require closure planning to limit contact with oxygen and water, and to manage long-term, low flows, of potentially poor quality water during late-time draindown.

Waste Rock Management: Waste rock at GHP will be managed in accordance with the currently authorized ""*Waste Rock Management Plan for the Round Mountain Mine and Gold Hill Area (June 1, 2009)* and subsequent revisions. RMGC will continue to conduct geochemical evaluations of the waste rock in accordance with this plan and applicable WPCP requirements.

A waste rock sampling and monitoring program will be implemented for waste rock generated from Gold Hill mining operations. The geochemical characterization program will provide representative information from Meteoric Water Mobility Procedure (MWMP) testing, Acid-Base Accounting (ABA), and Humidity Cell Testing (HCT) to evaluate the potential for mobilization of dissolved constituents and acid generation. The Permittee will use these data to update the Waste Rock Management Plan (WRMP), as necessary.

Pursuant to the WRMP, rock types with acid neutralization potential-to-acid generating potential (ANP:AGP) ratios greater than 3 are considered non-potentially acid generating (non-PAG) and are classified by the Permittee as "non-designated waste rock" for their management purposes. Rock types with and acid neutralization potential-to-acid generating potential (ANP:AGP) ratios of 3 or less are considered potentially acid generating (PAG) and are classified by the Permittee as "designated waste rock" for their management purposes.

The PAG waste will be encapsulated within the interior of the waste rock dump (WRD) and non-PAG waste from the pit is placed on the final WRD surfaces. Conceptual and numerical cover modeling indicates that a 2-foot cover is considered adequate for the GHP WRD to prevent meteoric water from contacting potentially reactive waste. During active waste rock placement, rock types identified as PAG waste will be placed on a nominal 20-foot thick base comprised of non-PAG waste material at an average of 24 feet from any final (regraded) dump face with a nominal 65-foot set-back on each lift. In addition, the designated waste rock will be placed to accommodate a future cover of non-PAG waste material with a nominal thickness of 20 feet.

A detailed review of the material balance for the GHP WRD was performed using MineSight 3D®, a three-dimensional software program used for geologic modeling, mine planning and development. The model utilized the proposed WRD design and the planned encapsulation of designated waste with a 20-foot thick non-designated waste layer above and below the designated waste and a 65-foot setback of non-designated waste on the slopes. During waste dumping, the last 65 feet of the dump crest advancement of any lift will be limited to non-designated waste. This will ensure that the final regraded slopes of the dump will consist of non-designated waste with thickness that ranges from 13 to 35 feet and averages 24 feet.

The results of the MineSight 3D® calculations indicate the proposed GHP WRD design will require approximately 42 million tons of non-PAG waste to achieve the proposed encapsulation of designated waste with a 20-foot thick non-PAG waste layer above and below the designated waste and an average thickness of 24 feet on the slopes. Based on the current mine plan, the estimated tonnage of non-PAG waste that will be available from the Gold Hill pit is 49 million tons; therefore there is a 7 million ton surplus of non-PAG waste.

As stated previously, the GHP WRD will be constructed in two phases to coincide with the phased pit development. The Phase-1 WRD (i.e. "West" WRD) will have a capacity of 135 million tons of waste rock, a final height of 200 feet above the ground surface (6,249 feet amsl), and occupy a footprint of 501 acres. The Phase-2 WRD (i.e. "North" WRD) will have a capacity of 9 million tons of waste rock, a final height of 175 feet above the ground surface (6,574 feet amsl), and occupy a footprint of 51.6 acres.

The GHP WRDs will be constructed by end-dumping material in lifts up to 75-feet in height to an overall average slope configuration not steeper than 2.5H:1.0V (horizontal to vertical). The un-reclaimed dump faces are at the angle of repose. The WRDs will be built in lifts to facilitate recontouring and reclamation and some areas of the dumps will be regraded and reclaimed concurrently with ongoing operations. The final configuration of the waste rock dumps are subject to change based on operational considerations during the life of the project.

Dewatering Water Management: Alluvial water elevations range from 6,180 feet amsl (along the range-front fault) to 5,685 feet amsl (in the valley fill west of the pit), with water elevations in the bedrock and sinter units ranging from 6,380 to 6,180 feet amsl near the pit. Because of the relatively shallow groundwater depth (nominally 150 feet bgs) dewatering will be necessary. Prior to the implementation of any program or operation designed to manage excess dewatering water that is not currently consumed at the GHP site specifically with the intention of reintroducing the dewatering water into the local groundwater basin, the Permittee must first obtain a valid Permit from the Division for the design, construction, operation, and closure of an approved dewatering water management system (e.g. Rapid Infiltration Basin(s) or injection) for the GHP.

The Permittee predicts the GHP pit to be dewatered at a rate between 500 and 1,000 gallons per minute (gpm). Based on estimated dewatering and consumption rates, excess dewatering discharge from the GHP is expected to be minimal. The site water balance indicated that up to about 250 gpm of excess water may be produced by the mine dewatering system on an annual basis, with short-term discharges up to 500 gpm. The need for discharge is expected to decrease during the later stages of the proposed GHP.

Alluvial Dewatering: Hydraulic conductivity is low for the alluvium near the west pit wall. The low hydraulic conductivity of the alluvium close to the pit causes the steep hydraulic gradient in the alluvium between the western edge of the proposed pit and the valley lowlands. Alluvial borehole data indicate that it will not be feasible to dewater the alluvium with vertical wells. Alluvial dewatering will most likely require in-pit methods. Based on the borehole data, the maximum dewatering rate will be in the range of 50 to 150 gpm.

The alluvium is underlain by the sinter bedrock unit. Once the sinter is dewatered, some long-term downward seepage from the alluvium is possible under operational conditions. This is expected to be minor (less than 50 gpm). Therefore, leakage from the alluvium is unlikely to have a substantial influence on the sinter pumping rate.

Sinter Dewatering: The sinter unit exhibits intense fracturing and has locally high hydraulic conductivity values. Observed pre-pumping groundwater levels for the sinter are similar to that of the alluvium, with good hydraulic connectivity within the unit. Projected dewatering rates were estimated by extrapolating the results of the long-term sinter pumping tests and are expected to range between 450 and 850 gpm. Compared to the SVCO, the estimated dewatering rates for the GHP will be lower than SVCO.

The Fresh Water Pond will be located east of the HLP and will store water from the sinter dewatering operations for use as process make-up water and fire protection. The pond will be 172 feet by 172 feet by 16 feet deep and single-lined with 60-mil HDPE over a minimum 12-inch soil layer, placed in two 6-inch lifts above the prepared subgrade and compacted to $1x10^{-6}$ cm/sec (ASTM D1557). The floor of the pond will be graded to drain to a sediment sump constructed in the northwest corner of the pond.

Gold Hill Pit Lake: Following the cessation of mining and dewatering, a pit lake will develop in the GHP pit, similar to that at the SVCO pit. The main difference is that the GHP pit lake final water elevation of 6,000 feet amsl (200 years post mining and dewatering) is predicted to be below the bedrock alluvial contact and almost all inflow to the pit will come from the bedrock groundwater. At the SVCO pit, the water level is above the bedrock/alluvial contact and the largest portion of the inflow comes from alluvial groundwater. Like the SVCO pit lake, the GHP pit lake will stratify and mix seasonally due to the wind-driven turbulence and seasonal changes in temperature.

The GHP pit lake is expected to behave in a similar manner to that of the SVCO pit lake, with the chemistry dominated by the natural, background chemistry of the groundwater source. Mass loading from the pit walls expected to be small due to the overwhelming contribution and chemical control by groundwater inflow during filling. The pit lake is predicted to have a pH between 8.0 and 8.3, alkalinity between 150 and 240 mg/L, and elevated concentrations of three major ions (sulfate, chloride, and fluoride) and three metals/metalloids (arsenic, antimony, and manganese). Predictive modeling results of the pit lake chemistry over the long term indicate the lake will continue to evapoconcentrate, resulting in gradually increasing concentrations of solutes.

Heap Leach Pad: The Gold Hill HLP will be located on alluvium in an area where the depth to bedrock is between 150 and 800 feet. The HLP will occupy a footprint of 6.34 million square feet with an additional 491,036 square feet for the external solution collection channels. The process area, process pond, and event pond will comprise an additional 313,100 square feet.

Run-of Mine oxide and sulfide ore from the open pit will be hauled by truck to the four-cell HLP. Approximately 16,700 tpd (6 million tpy) of gold and silver-bearing ore will be mined throughout the four to six-year life of the GHP. The total amount of ore mined during Phase-1 pit development and placed on the Phase-1 HLP is estimated between 13.3 and 27.8 million tons, of which approximately 96 percent of the ore is oxide. Typically, ore greater than 6 inches will be crushed with a portable jaw crusher before being placed on the HLP with a telescoping discharge conveyor.

The HLP will be constructed in two phases (Phase-1 and Phase-2), each comprised of two cells, with a final height (at closure) of approximately 200 feet above the liner surface (6,462 feet amsl), and a total combined capacity of approximately 48 million tons of ore. The HLP has been designed to accommodate a nominal cyanide solution application rate of 0.003 gallon/foot^2.

Table 1.—Gold Hill Project, Total Phase 1 HLP Ore Placement (Estimated) Over Life of Project:

Crushed Ore	*Minimum (tons)*	*Maximum (tons)*	*Average (tons)*
Oxide	12,000,000	15,000,000	13,500,000
Mixed	300,000	500,000	400,000
Sulfide	50,000	70,000	60,000
Crushed Ore Total	***12,350,000***	***15,570,000***	***13,960,000***
Run-of-Mine (ROM) Ore			
Oxide	8,500,000	11,500,000	10,000,000
Mixed	350,000	550,000	450,000
Sinter	3,000	8,000	5,500
Sulfide	100,000	200,000	150,000
ROM Total	***8,953,000***	***12,258,000***	***10,605,500***
Phase 1 HLP Ore Total	***21,303,000***	***27,828,000***	***24,565,500***

Phase-2 HLP ore placement will be determined at a later date, however the Permittee estimates that Phase-2 could potentially generate between 20 and 24 million tons of ROM over the life of the project and crushed ore similar in composition to that of Phase-1.

Following clearing and grubbing, 1-foot of the existing soil will be stripped and stockpiled for use as a final soil cover for reclamation. Any deleterious material remaining would be removed from the area. For the HLP area, and the process and event ponds, a minimum 12-inch soil layer, compacted to 95 percent maximum dry density (ASTM D1557) above the prepared subgrade. The compacted soil layer will be placed in two 6-inch lifts, with permeability less than $1x10^{-6}$ cm/sec, and overlain by HDPE liner.

The entire HLP area (including the process ponds and solution collection channel) will be lined with a 60-mil HDPE liner. For the heap leach pad and collection channel, a combination of smooth and textured 60-mil liner will be installed over the compacted soil layer obtained from a borrow source. For stability purposes, textured liner will be placed on the western end of the leach pad and from the top of the containment to approximately 360 feet east of the containment berm.

The HDPE liner and the solution collection system (discussed below) will be overlain by a nominal 36-inch thick overliner, consisting of minus 2-inch diameter clean gravel. This overliner material will be obtained from existing sources from RMGC's current operations, and will have an average permeability of not less than 0.1 cm/sec.

A 10-foot high containment berm, having a crest width of 10 feet and 3H:1V side slopes, will be installed at the west end of the heap leach pad to provide containment and additional stability, directing solutions to the solution collection channel located on the south side of the pad as shown in the drawings. Smaller containment berms, 5-feet high with 6-foot crests and 3H:1V side slopes, will be installed for the remaining perimeter of the pad.

Solution Collection System: A network of solution collection pipes will be placed above the HDPE liner and prior to the placement of overliner material to facilitate collection of pregnant leach solution and convey the solution to the Process Plant and return barren solution to the HLP. The solution collection network is constructed along the toe of the containment berm.

The HLP is divided into 4 individual cells, with a series of 4-inch diameter CPT-SP (corrugated polyethylene tubing-smooth interior, perforated) spaced 30 feet on center. The secondary header pipes are 8-inch diameter CPT-SP and the primary header pipes are 15-inch diameter CPT-SP. The leach solution recovery pipes are 18-inch diameter CPT-S (corrugated polyethylene tubing-smooth interior), for the first 1,700 feet of pipe run which then transitions to 24-inch diameter, SDR-32.5 HDPE, until reaching the carbon-in-column (CIC) circuit. All recovery pipes have been sized to convey no more than 70-percent of the maximum flow capacity, up until the last 1,700 feet where the solution recovery lines will become full-pipe flow. In the event pipe capacity is reached, an overflow pipe will allow pregnant leach solution to be conveyed to the Process Pond.

The leach solution delivery system is comprised of 16-inch diameter steel pipe which runs from the barren vault/tank, for a pipe-run of approximately 3,950 feet, where it transitions to 14-inch diameter, steel pipe. From this pipe, 12-inch diameter steel risers continue to the top of the HLP, transitioning to 8-inch diameter, SDR-11 HDPE solution headers, 4-inch diameter HDPE pipe and finally to drip lines.

As each HLP cell is loaded, leach solution pipelines will be placed across the top and down the sides of the heap. A dilute solution of sodium cyanide will be applied to the ore using drip emitters at a nominal rate up to 0.003 gpm/foot^2, as stated in the application. Leach solution is expected to contain between 0.4 to 1.0 pounds of dissolved sodium cyanide per ton of solution at an appropriate pH. To maintain the proper pH, lime will be added to the ore prior to placement on the leach pads. Supplemental lime to augment pH will also be added via a milk-of-lime slaking and distribution system.

Solution Collection Channel: The Solution Collection Channel provides secondary containment for the Solution Collection System discussed previously between the Process Plant and the HLP. Pregnant leach solution flows along the pad liner and then collects in a solution collection channel located along the toe of the leach pad. Pregnant solution from the leach pad will be routed via a piping system directly to the process plant. In the event of a system upset or if the Process Plant has reached its operational capacity, the pregnant leach solution can be directed to the Process Pond for temporary storage through a 12-inch diameter, SDR-32.5 HDPE pipeline placed within the Solution Collection Channel.

The Solution Collection Channel will be located on the south end of the pad and will contain non-perforated 18-inch CPT main solution collection pipes, overlying a 60-mil HDPE liner for secondary containment. The HDPE overlies a minimum 12-inch soil layer, placed in two 6-inch lifts above the prepared subgrade and compacted to 95percent maximum dry density (ASTM D1557). The soil layer will have permeability less than $1x10^{-6}$ cm/sec, and will be overlain by HDPE liner.

Once the pregnant leach solution reaches the Solution Collection Channel, it is contained within the 18-inch main collection pipes. Leakage from the main solution collection drainage pipes will be detected by visual observation. Any solution leaking from the pipe will report to the Process Pond.

The Solution Collection Channel and the overflow weirs in the containment berm have been sized to handle the flows of the 100-yr, 24-hr storm event. Predictive modeling using the U.S. Army Corp of Engineers (USACOE), Hydrologic Engineering Center-Hydrologic Modeling System (HEC-HMS) computer program to simulate the effect of precipitation run-off. The flow in the solution collection channel was modeled using the entire footprint of the heap as an input basin. The flow across the weirs was modeled using the smallest weir and the largest independent section of the HLP that was employing a weir.

Process and Event Ponds: One double-lined process pond and one double-lined event pond will be constructed to accommodate operating and heap draindown solution and storm runoff from the entire pad area.

The Process Pond will be sized to contain drainage resulting from a 24-hour draindown in the event of a power failure, and also runoff and drainage from the 100-year, 24-hour storm event from the Process Plant area. Operational working volume will be controlled by the 65,000-gal Process Tank. An additional 500,000 gal are available for additional operational working volume in the Process Pond. At the nominal leach application rate of 4,000 gpm, the required 24-hour draindown storage volume is 5.76 million gal.

Runoff from the process area totals 148,000 gal, bringing the total storage requirement to 6.4 million gal. The designed process pond accommodates 6.52 million gal at 2 feet of freeboard. The total capacity at the crest is 7.89 million gal. The required pond dimensions are 300 feet by 300 feet, with 3H:1V interior side slopes, with a depth of 16 feet, including 2 feet of freeboard.

The Event Pond will be sized to accommodate runoff from the entire heap leach pad, including the Solution Collection Channels and Process Pond, resulting from the 100-year, 24-hour storm event of 2.8 inches. This total required storage volume is 12.2 million gallons, at 2-feet of freeboard. The total capacity at the crest is 14.5 million gallons. The event pond dimensions are 520 feet by 300 feet, 3H:1V interior side slopes, with a depth of 16 feet, including 2 feet of freeboard.

The Process and Event Pond liner and leak detection systems consist of a 60-mil HDPE textured liner (textured surface up), underlain by a 60-mil HDPE Drain Liner™, underlain by a minimum 12-inch soil layer, placed in two 6-inch lifts above the prepared subgrade and compacted to 95 percent maximum dry density (ASTM D1557) with a permeability of less than $1x10^{-6}$ cm/sec.

The ponds are both designed to drain the southeast corner to leak detection sumps. The leak detection sumps are 16-feet square and 2 feet deep with a 4-foot square floor and filled with D_{50} ¾-inch diameter gravel. Assuming 20-percent porosity, there is approximately 335 gallons of solution storage volume in each sump. A 4-inch diameter PVC leak detection pipe within each sump allows for the monitoring and pumping of any solution collected.

Use of Stebbins Hill Clay for Construction Purposes: RMGC anticipates that the amount of soil suitable for future construction and closure activities at the GHP and SVCO sites will far exceed availability. A potential, yet previously untapped source of material for construction exists in the Stebbins Hill Clay. An estimated 1,423,803 tons of clay is available in the three stockpiles located at the SVCO, an amount which is more than adequate to meet the projected 462,500 tons of soil material required for underliner construction at the GHP site.

Use of the Stebbins Hill clay was first proposed during a March 28, 2011 meeting. BMRR indicated that they were receptive to the use of Stebbins Hill Clay for construction purposes, however because the characterization results showed the clay material to have a significant PAG (potentially acid generating) component, BMRR would need to perform a thorough and comprehensive evaluation of RMGC's proposal. In addition, BMRR authorization to use PAG clays for construction purposes could have potentially wide-ranging impacts not only at the GHP and SVCO, but at mine sites throughout the state.

In order to formulate a final decision, BMRR requested that RMGC and/or Interralogic provide supplemental technical information and characterization data for review. The requested information was received on June 23, 2011, and during BMRR's review, additional concerns were identified and highlighted in a letter to RMGC dated July 5, 2011. A meeting at the BMRR offices with RMGC and Interralogic on July 13, 2011 further clarified BMRR's position regarding the use and placement of the clay and the need for additional technical information, which was received via surface mail on July 28, 2011.

Stebbins Hill Clay Background and Characterization Results

The Stebbins Hill clay is comprised of a mixture of clay minerals (montmorillonite and kaolinite), fine-grained mica (illite), feldspar, and quartz. The clays and mica represent the end-stage of weathering of primary silicates and will be stable under normal earth surface conditions and any additional weathering will result in the alteration of any residual feldspar and illite to clay minerals.

The quartz is nearly inert and will not undergo further mineral transformations. Small amounts of calcite and pyrite also exist in the Stebbins Hill clay and are more reactive than the silicate minerals; however, they will not react significantly in the underliner environment primarily due to the physical constraints imposed by the clay and mica minerals. The presence of clay particles limits the water movement and oxygen movement through this material. These minerals are layer silicates that will orient themselves in planar fashion perpendicular to the downward directed pressure load, such during construction by compaction and also under load from 200 feet of crushed ore on top of the liner system, to further decrease permeability.

The potential direction of water and air flow will be downward, but migration through the clay will be severely limited by the barrier created by the planar-orientation of the clay minerals.

The clay mineral content of the Stebbins Hill clay is likely a major factor for the very low permeability found in testing. Without a high flux rate of water and dissolved ions through the clay, reactions can only take place by diffusion controlled processes. These processes are very slow and also limited by the physical barriers of the planar clay minerals. In addition, because the clay minerals are not highly reactive, there is little chemical driving force that might accelerate molecular diffusion. Without a high rate of flux of water and dissolved solutes through the clay, including dissolved oxygen, there is very little to no opportunity for the calcite and pyrite to react in a rapid manner and no mechanism to transport solutes into the subsurface below the underliner. Thus, the reactivity of the clay underliner is extremely low.

The Stebbins Hill Clay was mined from exposed faces of the Stebbins Hill Formation in the Round Mountain Pit at the SVCO. The clay was mined at different times and because of this, exhibits a wide range in physical and chemical properties. The clay is currently stored in three stockpiles at the SVCO, which are referred to as the "Old", "North", and "East" stockpiles.

Characterization results indicate that the stockpiled Stebbins Hill Clay meets the permeability specifications pursuant to Nevada Administrative Code (NAC) 445A.434. However, acid-base accounting (ABA) results indicate that the "Old" Clay is acid neutralizing while the "North" and "East" clays are potentially acid generating (PAG), due to variability in carbonate and sulfide mineral content.

Estimated stockpile volumes/tonnages & requirements for the Gold Hill Project are listed below in Table 2:

Table 2.--Stockpile Volumes/Tonnages & Requirements for Gold Hill Project

	"Old" Clay (non-PAG)	"North" Clay (PAG)	"East" Clay (PAG)
Volume *(cubic yards)*	203,723	408,071	239,612
Dry Density *(pound per cubic foot)*	119.4	124.8	126.1
Total *(tons)*	328,381	687,518	407,903
Total Volume of Stebbins Hill Clay Available: 851,406 cubic yards			
Total Tonnage of Stebbins Hill Clay Available: 1,423,803 tons			

Alluvium Characterization Results

As stated previously, the Gold Hill alluvium is classified as non-acid generating based on extremely low sulfur content and low to moderate neutralization potential. Meteoric water mobility procedure (MWMP) results from alluvium at the GHP site indicate that the alluvium releases a high amount of alkalinity over the short term resulting in neutral to slightly alkaline pH values. Humidity cell testing (HCT) results indicate that the Gold Hill alluvium continues to produce alkalinity and circumneutral pH water after an extended period of simulated weathering.

Geochemical testing results from the Gold Hill alluvium indicate that it produces alkalinity upon exposure to water over both the short and long term, and will provide a chemically stable platform for the Gold Hill HLP that will provide a high attenuation capacity for solutes potentially released from the HLP. Continuous contact of the clay with the underlying alluvium does not present an interface for reaction since it produces alkalinity upon exposure to water over both the short and long term.

In the absence of any mechanism to transport oxygen and water through the clay, sulfide oxidations will not occur at a rate or extent sufficient to change the low permeability characteristics of the clay. Since the depth to groundwater is on average about 250 feet below ground surface, interaction with groundwater through-flow will not occur.

Clay Placement and "Encapsulation"

RMGC is proposing to use the Stebbins Hill "North" and "East" clays as an underliner for the HLP. In this configuration, the upper "encapsulation" will consist of a synthetic liner, and crushed ore of approximately 200 feet. The lower "encapsulation" will consist of a 12-inch layer of compacted and prepared underliner, followed by approximately 250 feet of alluvium. Assuming an average density of 125.45 pounds per cubic foot, the HLP underliner alone will require approximately 399,446 tons of "North" and "East" clay material.

The process and event ponds and the solution channel each have secondary containment. The ponds are double-lined and leak detected with 60-mil HDPE textured liner (textured surface up), underlain by a 60-mil HDPE Drain Liner™. The solution channel is comprised of HDPE within a 60-mil HDPE-lined channel.

Pursuant to NAC 445A.434, the ponds and the channel will require an underliner with a compacted permeability of $1x10^{-5}$ cm/sec. RMGC is proposing to use compacted Gold Hill alluvium for the solution channel underliner. In the event this alluvium does not meet the specified permeability, RMGC will use a mixture of the Stebbins Hill "Old" clay material with the native alluvium such that the compacted permeability meets the specified rate of $1x10^{-5}$ cm/sec.

Precious Metal Extraction and Recovery: The solution collection system will transport pregnant solution from the heap leach pad to the process plant. Gold and silver recovery will be accomplished through the 3-ton, 6-tank (500 gallons each) CIC circuit, at a nominal flow rate of 4,000 gpm. This process involves passing pregnant solution through the activated carbon columns.

From the CIC circuit, barren solution is pumped to the Barren Solution Tank which is equipped with an overflow pipe to allow barren solution to overflow to the Process Pond in the event solution tank capacity is reached. From the Barren Solution Tank, barren solution is pumped through HDPE delivery pipelines to the pad for re-application to ore.

Loaded carbon is then stripped with an acid and the resulting gold and silver-bearing solution is conveyed to two 125-foot^3 electrowinning cells. Spent carbon is reactivated through a carbon kiln. The collected sludge from the electrowinning cells containing the metal values is placed into a 12-cubic foot mercury retort to drive off the mercury which is collected by a series of scrubbers and traps. The post-retort sludge will then be placed in the refinery furnace for smelting and pouring of doré bars.

In the event solution tanks reach capacity, overflow pipes will direct solution to the Process Pond. The entire process area will be lined with a 60-mil HDPE liner for secondary containment underlain by a 12-inch layer of soil, placed in two, 6-inch lifts and compacted pursuant to ASTM D1570. Soil permeability for each lift is less than $1x10^{-6}$ cm/sec. Runoff and/or drainage from this area will be collected in the Process Pond which has been sized to accommodate the additional solution.

Tank volumes for the entire GHP Process Facility can be found in Table 3.

Ancillary Facilities: Ancillary facilities include portable lime silos and slaker, bulk chemical storage area, fuel storage and dispensing area, a ready-line with minimal maintenance area, and a prill silo for ammonium nitrate storage. All heavy maintenance of equipment will be performed off-site at the SVCO facility. Secondary containment of at least 110-percent of the largest tank or storage vessel will be constructed around all tanks to prevent the release of solution to the environment in the event of primary containment failure.

Table 3.—Gold Hill Project, Process Facility Tank Volumes:

Tank	*Volume (gallons)*	*Volume (cubic feet)*
Barren Solution Tank	65,080	8,700
Sodium Cyanide Tank	20,197	2,700
Pregnant Solution Tank (outside plant)	65,080	8,700
Pregnant Solution Tank (inside plant)	14,138	1,890
Barren Solution	14,138	1,890
Acid Storage	2,400	314
Caustic Storage	16,906	2,260
Acid Wash	2,147	287
Dilute Acid	3,030	405
Electrowinning Sludge	1,182	158
Activated Carbon	3,942	527
Carbon Attrition	1,421	190
Loaded Carbon	3,643	487
Anti-Scalant Tank (in Plant)	1,200	161
Barren Return Tank	160	22
Future Mercury Inhibitor Tank	8,000	1,070
Anti-Scalant Tank (outside Plant)	8,000	1,070

A portable lime slaker will be located on containment near the heap leach pad or process facility. The lime will be utilized for process solution pH control. Fuel and bulk chemical storage areas will be constructed at the Gold Hill area. The fuel facility will be co-located with the equipment ready-line, along the access/haul road and will consist of diesel storage tanks and a fuel island. A secondary containment area will be used for lubricants and fluids.

Three 10,000-gallon fuel tanks are currently proposed for construction along with a grease tote at the fuel pump. A Conex trailer will be used to store lubricants and fluids, and a second trailer will be used for storing welding equipment, an air compressor and parts, as well as, a portable emergency eye wash. Sumps have been incorporated into the design to collect any spills and allow for the disposal of collected fluids.

Chemical reagent storage would be located within the proposed process areas. Reagents required for the proposed project would include: quick lime, sodium cyanide, sodium hydroxide, zinc metal, lead nitrate, calcium hypochlorite (for cyanide neutralization), mercury inhibitor, activated carbon, refining flux (including sodium borate, silica, sodium nitrate, and sodium carbonate), and anti-scalant. Reagent transportation and storage for the Gold Hill area will be the same as that for the SVCO.

Sumps have been incorporated into the design to collect any spills and allow for the disposal of collected fluids.

Petroleum Contaminated Soil Management: RMGC will manage petroleum contaminated soil (PCS) at the GHP site in a manner consistent with the RMGC PCS Plan approved by the NDEP on December 1, 2010. However, RMGC may also elect to ship PCS offsite to an approved disposal facility. An SOC item requires the submittal of an Engineering Design Change (EDC) for either 1) a PCS plan specific to the GHP or 2) to incorporate the treatment of GHP PCS at the SVCO site.

Landfills: A Class III waivered landfill is proposed for construction within the proposed West Waste Rock Dump. The construction and operation of the landfill will be similar to the existing landfill at the SVCO. Landfill cells will be constructed in the waste rock and raised in conjunction with the dump. Solid waste will be placed in an onsite Class III waivered industrial landfill in accordance with NAC 444.731 through 444.737.

Water Supply: Production wells will be installed to ensure adequate water supply for consumption, ore processing, and dust control needs. RMGC will construct approximately eight water wells, which may be used as production wells and/or dewatering wells to supply water to the Gold Hill facilities depending upon operational requirements and individual well yield. In addition, pit dewatering will contribute a significant amount to the water supply at the GHP. An above-ground pipeline will transfer the water to either the upper or lower storage tank or the Fresh Water Pond.

A lined storage pond would be located just north of the HLP adjacent to the access/haul road. The pond would be used to store make-up water only and will be lined with a single 60-mil HDPE liner.

Stormwater Controls: Ephemeral drainages exist throughout the Gold Hill area including a few unnamed drainages above the heap leach facility. Stormwater run-on will be diverted around the process facilities and returned to natural drainages, where practical. In those limited cases where topography (i.e., ridges) prevent the construction of ditches to return flow to natural drainages, stormwater run-on may be impounded and used for processing where practical.

The run-on diversions are designed to accommodate the 100-year, 24-hour storm event for process facilities and the 25-year, 24-hour storm event for all other facilities when needed. Predictive modeling using the USACOE, HEC-HMS computer program was used to simulate the effect of precipitation run-off.

C. Receiving Water Characteristics

Gold Hill Area Groundwater Quality: Baseline water chemistry for the Gold Hill area is provided by bedrock wells GHB-03-1, GHB-03-2, GHB-03-3, GHB-03-4, GHB-PBW and alluvial wells, GHA-03-1, GHA-03-22, GHA-03-3, GHA-03-4, GHA-03-5, GHA-03-6.

Alluvial groundwater can be characterized as sodium-calcium-bicarbonate water with neutral to slightly alkaline pH and TDS concentrations typically less than 500 mg/L. The dominant control on the groundwater chemistry in the alluvium is recharge from infiltration of precipitation. As a result, most constituent concentrations are generally below the Profile I reference values with the exception of arsenic and fluoride at alluvial well GHA-03-1 (located west and downgradient of the proposed GHP pit and on the east toe of the proposed Phase 1 or WRD) and alluvial well GH-03-02 (located southwest and downgradient of the proposed GHP pit and south of the proposed Phase 1 WRD); arsenic and manganese at alluvial well GHA-03-3, (located south and downgradient of the proposed GHP pit), arsenic at alluvial well GHA-03-5 (located west and downgradient of the proposed GHP pit); and iron and manganese at alluvial well GHA-03-6 (located west and downgradient of the proposed GHP pit). Construction of the Phase 1 WRD will require abandonment of alluvial well GHA-03-1.

The bedrock groundwater can be generally characterized as sodium-calcium-bicarbonate water with neutral to slightly alkaline pH and TDS typically less than 500 mg/l. Background groundwater constituent concentrations do not exceed Profile I reference values with the exception of antimony, arsenic, and fluoride at bedrock well GHB-03-1 (located west and downgradient of the proposed GHP pit at the proposed Phase 1 ERD); arsenic, iron, and manganese at bedrock well GHB-03-2 (located within the proposed GHP pit); arsenic at bedrock well GHB-03-3 (located within the proposed GHP pit); and antimony, arsenic, and manganese at bedrock well GHB-03-4 (located outside and on the east rim of the proposed GHP pit). These constituents are consistently reported at concentrations above the Profile I reference values in the bedrock wells and the elevated concentrations may be the result of historic mining activity or the result of natural localized mineralized zones. GHB-03-02 through GHB-04 will be abandoned with the development of the pit.

C. Procedures for Public Comment

The Notice of the Division's intent to issue a permit authorizing the facility to construct, operate and close, subject to the conditions within the permit, is being sent to the **Tonopah Times-Bonanza and Goldfield News** in Tonopah 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 following the date of 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, 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. All 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 issue a new WPCP for the GHP.

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

See Section I of the permit.

G. Rationale for Permit Requirements

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, it must operate under a standard of performance which authorizes no discharge(s) except for those accumulations resulting from a storm event beyond that required by design for containment.

The primary emphasis for identification of escaping process fluids is placed in periodic inspection of leak detection systems, groundwater monitoring wells, and routine visual inspections of components for possible surface releases. Monitoring is in accordance with permit conditions. Specific monitoring points are described completely in Part I.D of the WPCP.

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 (50CFR10, 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 may attract migratory waterfowl and other avian species. 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 or balls), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of toxic water. 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:	*Rob Kuczynski, P.E.*
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