Bureau of Land Management
Battle Mountain Field Office
November 2004

BLACK ROCK CANYON DRY PLACER MINE AND MILL

Environmental Assessment
NV063-EA04-77
Plan of Operations/Reclamation Plan
NVN-078104

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Battle Mountain Field Office
50 Bastian Road
Battle Mountain, Nevada 89820
http://www.nv.blm.gov

TAKE PRIDE IN AMERICA

In Reply Refer To:
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NV063-EA04-77
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NVN-078104
(NV063)

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Dear Reader:

Enclosed for your information is a copy of the Black Rock Canyon Dry Placer Mine and Mill Environmental Assessment. You are asked to provide this office with any information, issues, or concerns you may have regarding the proposed project. Comments should be postmarked or otherwise delivered by 4:30 p.m. December 29, 2004, for full consideration. Please send comments to Jon Sherve at the above address. If you have any questions, you may contact him at (775) 635-4164.

Sincerely,

Stephen C. Drummond

FOR Gail G. Givens
Assistant Field Manager
Nonrenewable Resources

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1.0 INTRODUCTION

1.1 BACKGROUND

Nevada Rae Gold (NRG) has acquired the Placer Claims and has leased surface rights on private land to dry alluvial gold resources in Lander County, Nevada. On July 1, 2004, NRG submitted a revised Plan of Operations (PoO) and Reclamation Plan (NVN-078104) for the Black Rock Canyon for the Black Rock Canyon Dry Placer Mine and Mill, Lander County, Nevada (Project). The project includes private-in-fee lands, and public lands administered by the Battle Mountain Field Office (BMFO) of the Bureau of Land Management (BLM). Due to the nature and extent of the proposed mining operations, the BLM has determined that this proposed action requires an environmental assessment to analyze the potential for environmental impacts.

Black Rock Canyon is located approximately 50 miles southeast of Battle Mountain, Nevada and approximately 60 miles southwest of Elko, Nevada (**Figure 1-1**). The proposed mine is located on the eastern flank of the Shoshone Mountain Range, in portions of Township 29 North, Range 47 East (T 29 N, R 47 E), Sections 4, 9, and 10, Mount Diablo Meridian and the proposed mill site is located in T 29 N, R 48 E, NW¼ of Section 19 (**Figure 1-2**). The existing road that would be used to transport ore to the proposed mill and to transport tails (fine sediment) back to the mine area for use in reclamation extends from T 29 N, R47 E, Section 10 to the mill site.

This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and in compliance with applicable regulations and laws passed subsequently, including the President's Council on Environmental Quality regulations, U.S. Department of Interior requirements, and guidelines listed in the BLM Manual Handbook H-1790-1.

1.2 HISTORICAL MINING ACTIVITY

The Black Rock Canyon foothills have previously been mined for gold in dry placers. The last two major mining activities occurred in the late 1970s to early 1980s and again from the early to mid-1990s. During this timeframe, gold was mined and milled in the same areas as being proposed by NRG. When the price of gold dropped in the early 1980s the mill was converted to a barite floatation mill with the barite source being mined in Black Rock Canyon above the placer operations. South of the Black Rock Canyon Project Area was also mined for gold in the early 1900s using underground adits in dry terrace gravels that maintained structural integrity through time. Other than prospect pits and prior exploratory drilling, the gravel development in the Project Area has been spotty and poorly financed.

Dry gravel mining for gold was conducted in the mid 1990s by John Uhalde on properties immediately adjacent to this proposed project. Reclamation was completed under the guidance of BLM. The prior mill site for the gold and barite processing lies immediately west of the NRG proposed mill site and has been reclaimed to BLM and NDEP specifications. Other than the use of the wells and an access corridor to the haul road, NRG does not plan to utilize this old mill site.

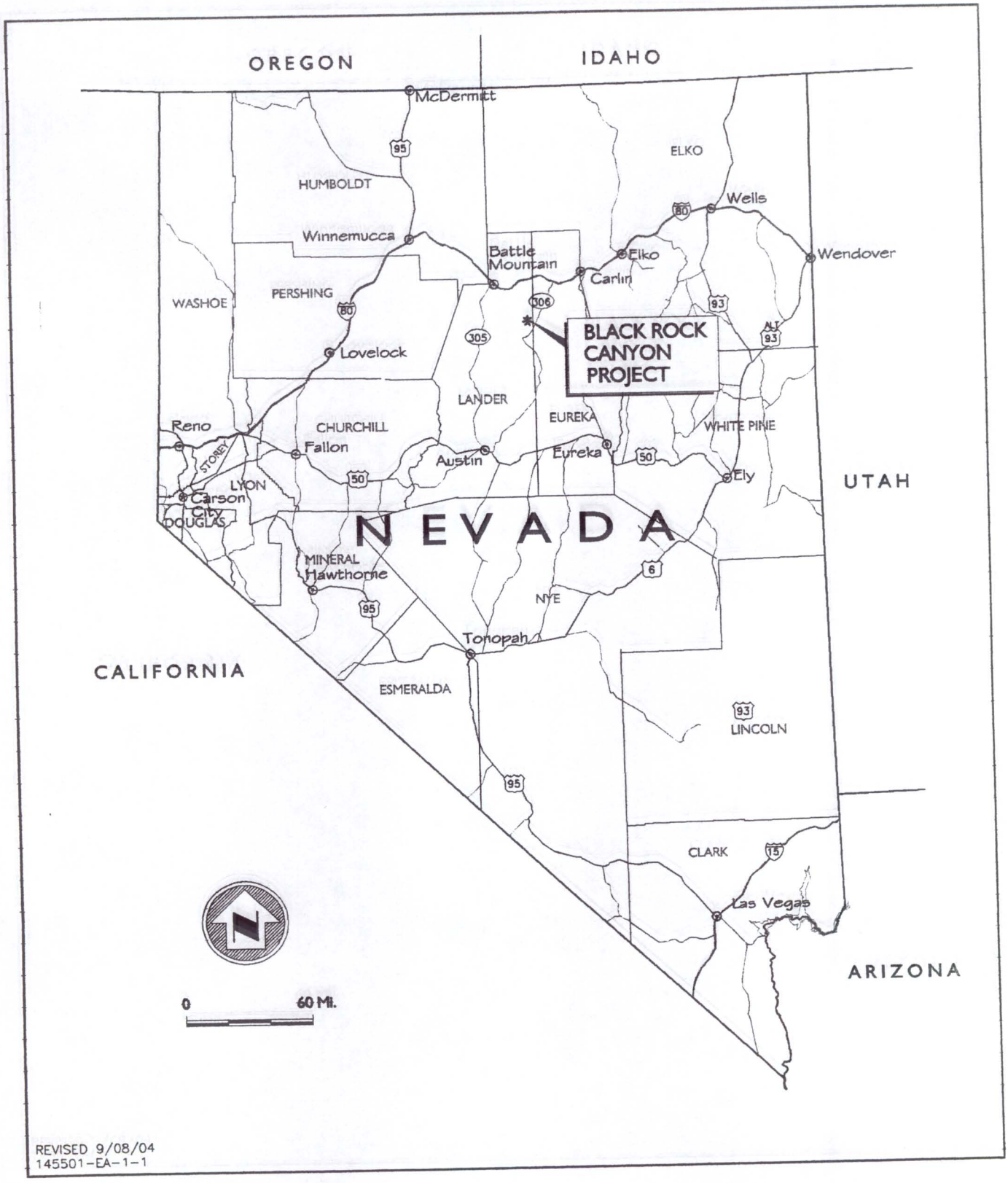

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FIGURE 1-1
LOCATION MAP

In 1983, a haul road was constructed by John Uhalde to the Black Rock Canyon from the mill site to shorten the haul distance to the plant. This post-1981 road was never bonded nor reclaimed but remains as a well graded and partially graveled road that would be included in the Proposed Action and reclaimed after mining and milling activities in accordance to the Reclamation Plan and PoO submitted to BLM on July 1, 2004.

1.3 PURPOSE AND NEED

The purpose of the Proposed Action is to develop defined deposits and to recover the gold ore resources identified on mining claims that have been acquired by NRG. The Project need is reflected by the demand for gold identified in national and global markets.

1.4 ISSUES

The key issues are:

- Air quality – fugitive dust from the mining and haulage;
- Noxious and invasive plants – existing, potential for establishment, control and eradication, and long-term management of these species on disturbed sites;
- Wildlife – removal of vegetation during the avian breeding season could result in destruction of bird nests and/or their contents;
- Special Status Species – Sage-grouse habitat may occur in the Project Area; and
- Reclamation – the use of native species in reclamation and the need to duplicate the existing vegetative communities should be considered.

1.5 CONFORMANCE WITH LAND USE PLAN

The Proposed Action and alternative described below are in conformance with the Shoshone-Eureka Resource Management Plan (RMP) and Record of Decision (ROD), Management Decisions: Locatable Minerals 1 (BLM 1986). The objectives for Minerals are to encourage development of mineral resources to meet national, regional, and local needs, assure the mineral exploration, development, and extraction are carried out in such a way as to minimize environmental and other resource damage and to provide for reclamation of the land; and develop detailed mineral resource data in areas where different resources conflict so that informed decisions may be made that result in the optimum use of the public lands. The Management Decisions related to Minerals include keeping all public lands in the planning area open for mining and prospecting unless the lands have been withdrawn or restricted from mineral entry. The Proposed Action and alternatives are also consistent with federal, state, and local laws, regulations, and plans to the maximum extent possible.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 PROJECT DESCRIPTION

Dry placer mining techniques are proposed to mine approximately 8.14 million cubic yards of gravels in Black Rock Canyon, Lander County, Nevada. Milling of the fine material (minus 1-inch) would be conducted at a mill site approximately four miles east of the mining operation. The Project is scheduled for approximately ten years. Mining would occur through the development of blocks, and reclamation would be conducted concurrently with the mining. Employment would range from five to ten people; ten during the construction and start up phase and five during the operational mining phase. Approximately 103 acres of disturbance (80.9 acres of public land and 22.1 acres of private land) would be associated with the mining operation, with less than eight acres of disturbance actively being mined at any time. An additional 8.0 acres of private land would be used for the mill site, and 6.6 acres of disturbance on public lands would be associated with road construction/road improvement. Total surface disturbance associated with the Project would be 117.6 acres Table 2-1.

Table 2- 1: Black Rock Canyon Mine and Mill Proposed Disturbance

Project Component	Acres Public Land	Acres Private Land	Total Acres
Section 4 Reserves[1]	22.5		22.5
Section 9 Reserves[1]		22.1	22.1
Section 10 North Resource[1]	22.6		22.6
Section 10 Middle Resource[1]	25.5		25.5
Section 10 South Resource[1]	10.3		10.3
Haul Road	6.6		6.6
Mill and Associated Buildings		0.8	0.8
Mill Yard and Stockpile Area		5.9	5.9
Tailings Ponds		1.1	1.1
Storm Water Ponds		0.2	0.2
Totals	87.5	30.1	117.6

[1]These components also include disturbance for trenching necessary to determine grade of ore. Approximately 1.1 acres of trenching would occur in the areas proposed for mining.

2.1.1 Existing Activities

Existing activities by NRG at the site is limited to baseline environmental work and arranging to have non-useable equipment removed from the proposed mill site. Claim staking activities and limited gold panning activities are also occurring by other mining companies and individuals. NRG is in the process of cleaning up the existing bone yard of equipment where the proposed milling activities would be undertaken.

2.1.2 Mill Site Facilities

The mill site would be about 2.4 miles south of the Town of Crescent Valley on the west side of Highway 306 on Patented-in-Fee land (**Figure 1-2**). The mill site is at an elevation of approximately 4,930 feet above mean sea level (amsl). The proposed mill area is in an area previously disturbed by similar milling operations and has undergone partial reclamation activities. The mill site is currently the repository for mining and mill equipment. Two functioning wells for use as domestic and process water are located on the mill site, which are also connected to the local power grid. Valid water rights exist for both wells.

Facilities at the mill site would include an office, maintenance facility/storage area, fuel storage area, storm water pond, settling ponds, ore stockpile, wash plant or mill, goldroom, and sanitary facilities (**Figure 2-1**). In addition, water lines from the existing wells, the existing power line, and access roads would be included in the mill site. Approximately eight acres of disturbance is associated with the mill site, all on private land. Right of way applications have been submitted for the extension of the power line from public land to the mill site facilities and to connect the wash plant to the wells via an underground water line.

The mill consists of a feed hopper, trammel, scrubber and screen to remove the plus ¼-inch and wash gravel before it passes to the centrifugal bowls for gold recovery. Sedimentation ponds would be established to allow suspended sediment to settle, for return to the mine site for use in reclamation after it has been stacked and dried. The water from the ponds would be re-circulated to the process plant. No chemicals would be used in the operation. The concentrate from the initial screening and processing would be cleaned with a smaller centrifugal bowl and shaking table. The gold flakes, particles, and dust would be dried and weighed before shipment to the refinery.

2.1.3 Mine Site

The elevation of the proposed mine site is 5,220 to 5,800 feet amsl. The terrain in the vicinity of the mine is not a canyon as the name implies but a series of rolling hills separated by winding ephemeral drainages. The mining area is best described as foothills and dry ephemeral drainages on the flanks of Crescent Valley. The Project Area does not include any perennial drainage.

The gold-bearing placer deposits or mine sites are found in relatively recent age alluvial deposits that are in dry drainages hundreds of feet above groundwater. This deposit lies in what has been mapped as Black Rock Canyon and its dry feeder drainages along the mountain front (**Figure 2-2**). Approximately 103 acres of land would be subject to mineral development. The mine site would consist of the topsoil stockpiles, overburden stockpiles, mining blocks, storm water/residual water containment berm, portable screen set-up area, access roads, and exploration and grade control test sites.

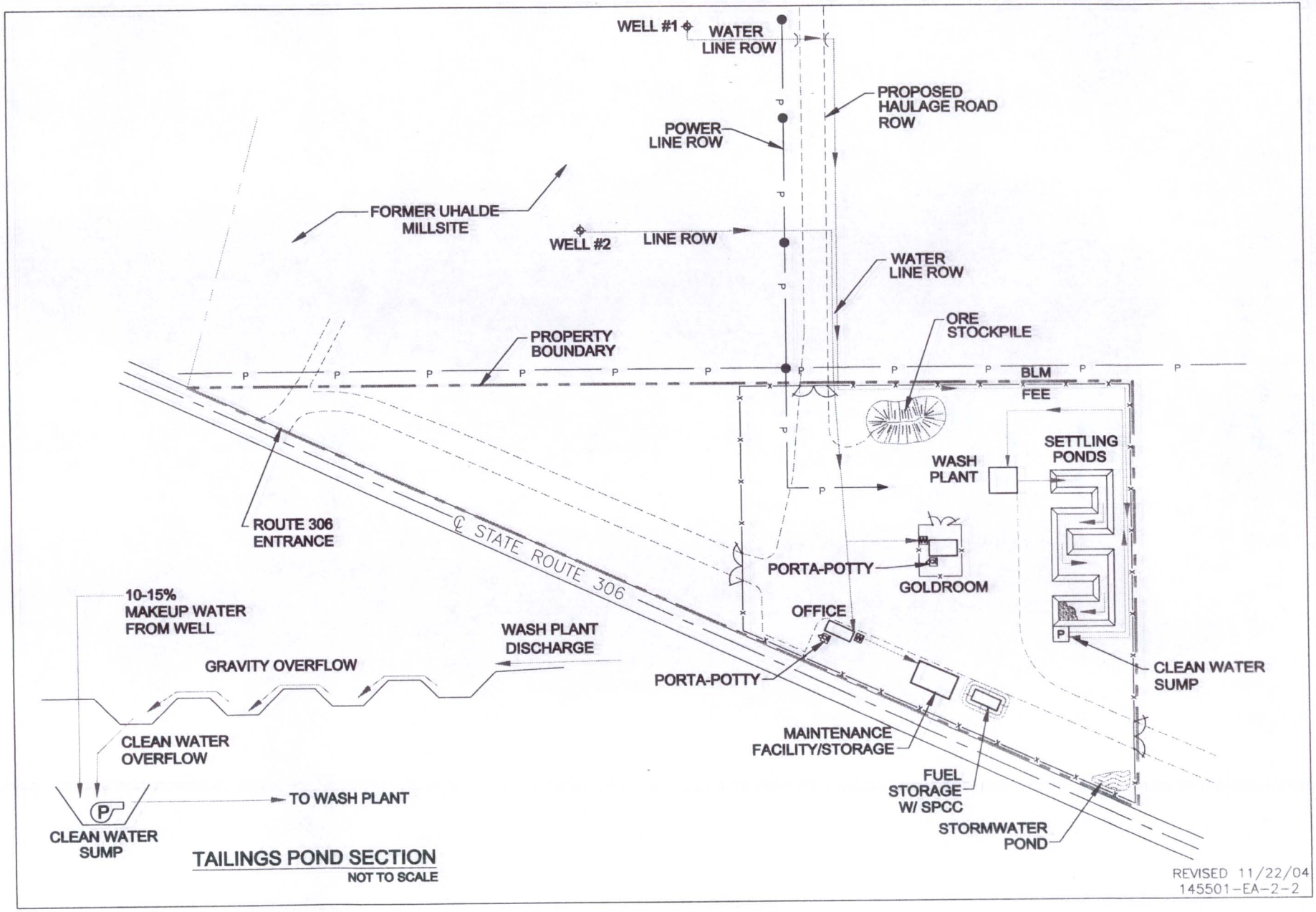

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FIGURE 2-1
MILL LAYOUT

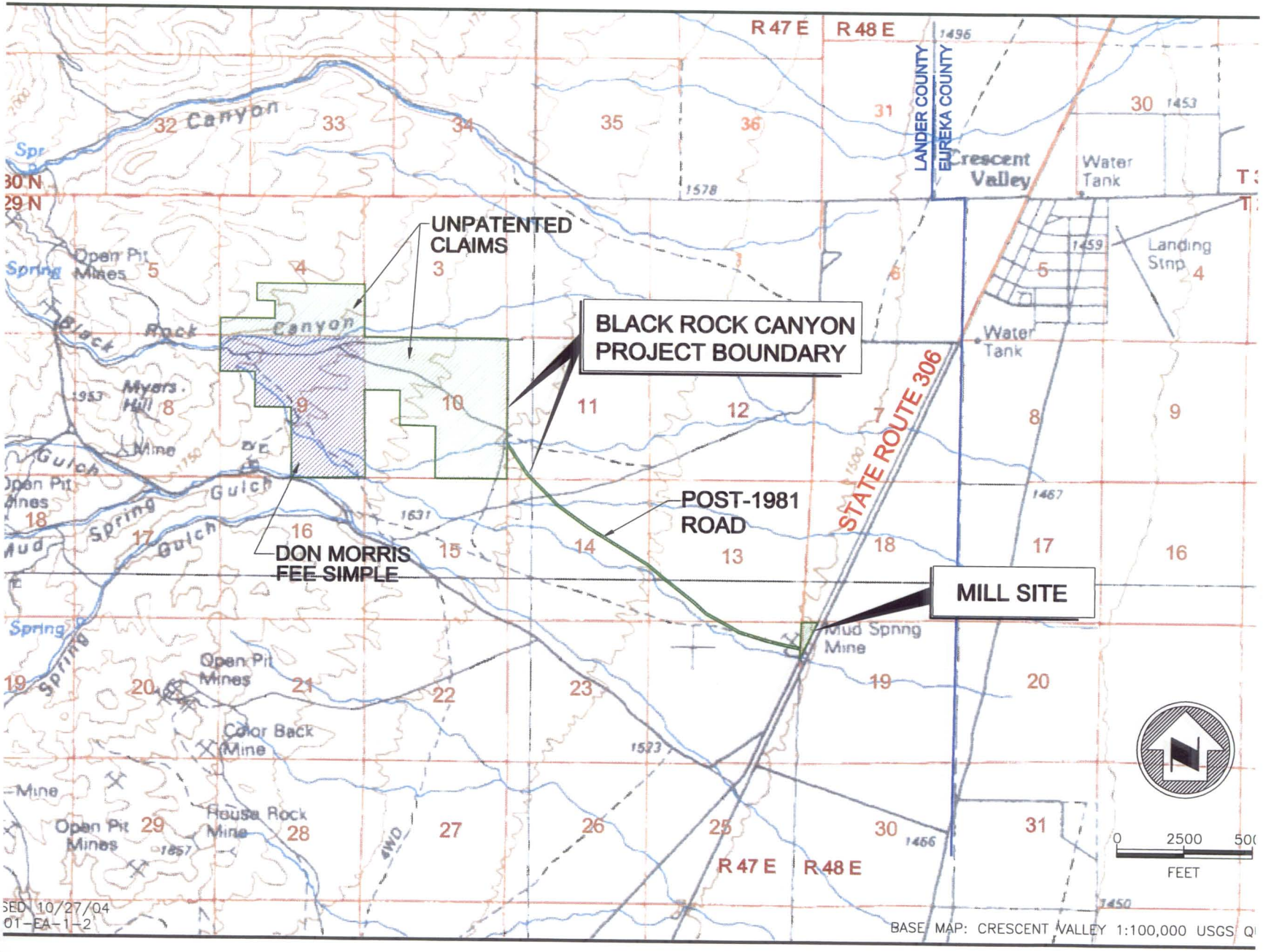

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FIGURE
REGIONAL LOCATION M

2.1.4 Haul Road

To the west of the mill site is a post-1981 constructed haul road which leads to the proposed mine sites located in three to four miles to the west in the foothills (See Figure 1-2). The haul road would be upgraded by installing culverts and either widening or installation of pull-outs to allow two-way traffic. In addition, approximately 220 feet of new road would be necessary to connect the mill site to the mine site. The acreage associated with this road improvement is less than seven acres.

2.2 PROPOSED ACTIVITIES

The proposed mining operation involves stripping off and stockpiling the topsoil and silty sand overburden followed by excavation of the pay gravels down to the quartzite bedrock. The relatively thin topsoil and overburden layers would be removed using a small bulldozer. Topsoil would be stripped first, and stockpiled separately from the overburden, that would also be stockpiled (**Figure 2-3**). A one-month mining block consisting of an area approximately 200 x 200 feet would be stripped for active mining. An average block would provide one month of production of gravel, and up to three blocks would be disturbed at any one time. Disturbance associated with topsoil and overburden storage for three blocks would be approximately 1.4 acres. Topsoil from the portable screen set-up site and storm water/residual water containment berm would disturb approximately 0.1 acres.

Mining would proceed up-gradient in each drainage. The gravels would be excavated using a series of 40-foot wide by 200-foot long trenches (**Figures 2-3 and 2-4**) and loaded into six-wheel drive articulated trucks to be transported to a portable screen. The screen is used to remove the barren oversize (plus 1-inch) cobbles and boulders. A front-end loader would feed the power screen from the stockpile and load the trucks. The screened, oversized material would be used at the mining site as part of the reclamation. The concentrate would be transported to the mill about four miles away. The portable screen would be relocated every six blocks or 1,200 feet (i.e., two locations per year). The site previously used for the screen would be reclaimed upon relocation of the screen to the next site. Approximately 0.9 acres of disturbance would be associated with the active screen site.

A sediment containment berm would be constructed at the down-gradient end of the first block in the annual mining sequence (**Figure 2-3**) and would remain in place until the blocks are reclaimed. The purpose of this containment berm is to maintain any sediment on site during storm or snow melt events. Approximately 0.5 acres of disturbance would be associated with this berm. A storm water permit application is under review by NDEP.

Mining would be at a rate of 200 cubic yards per hour and would disturb an estimated 27.6 acres per year. However, only 7.5 acres would be under active mining at any one time due to concurrent reclamation. Waste material from the initial screening process would be transported back to the excavated block and used to backfill the area previously excavated.

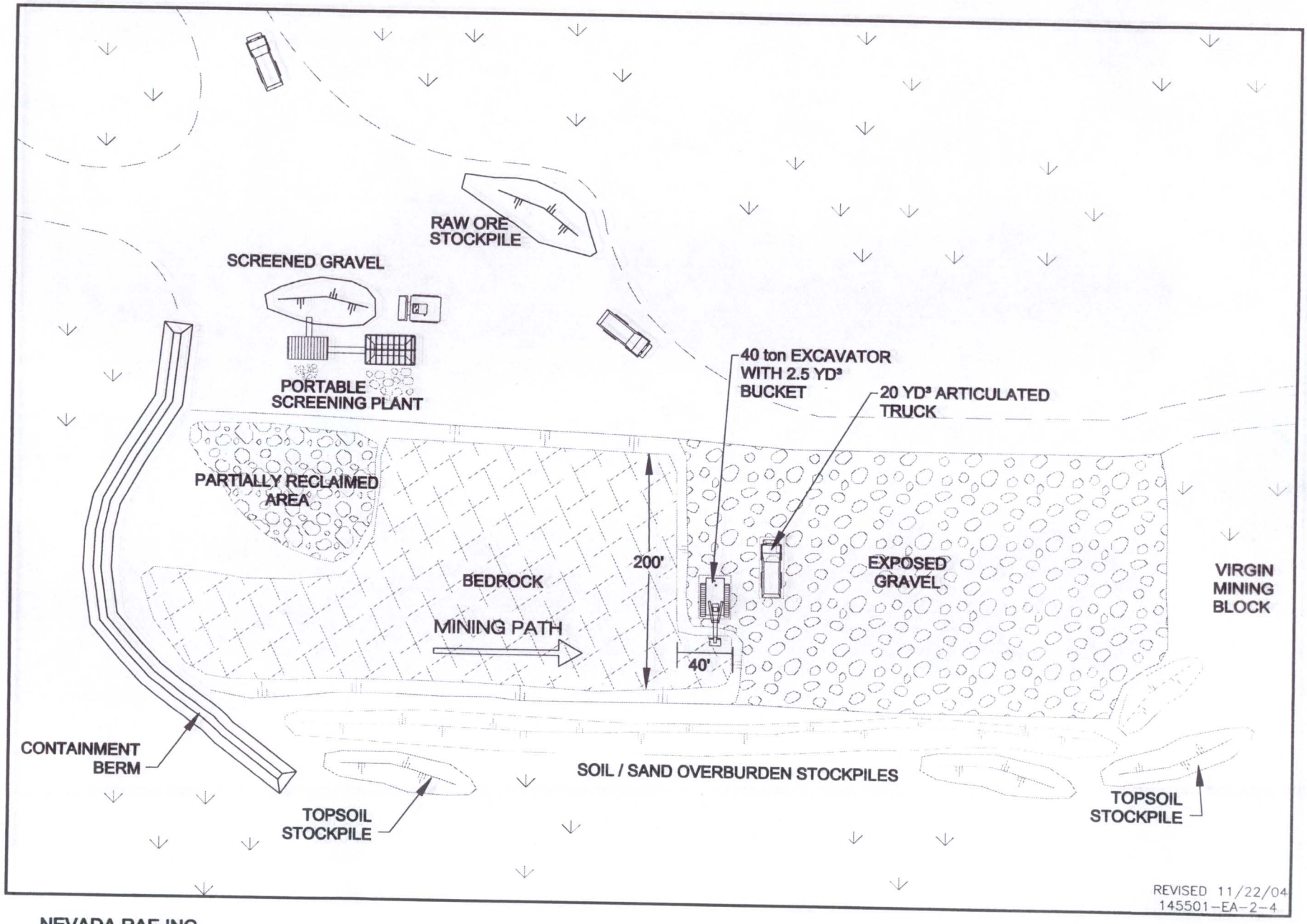

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FIGURE 2-3
MINING AREA SCHEMATIC

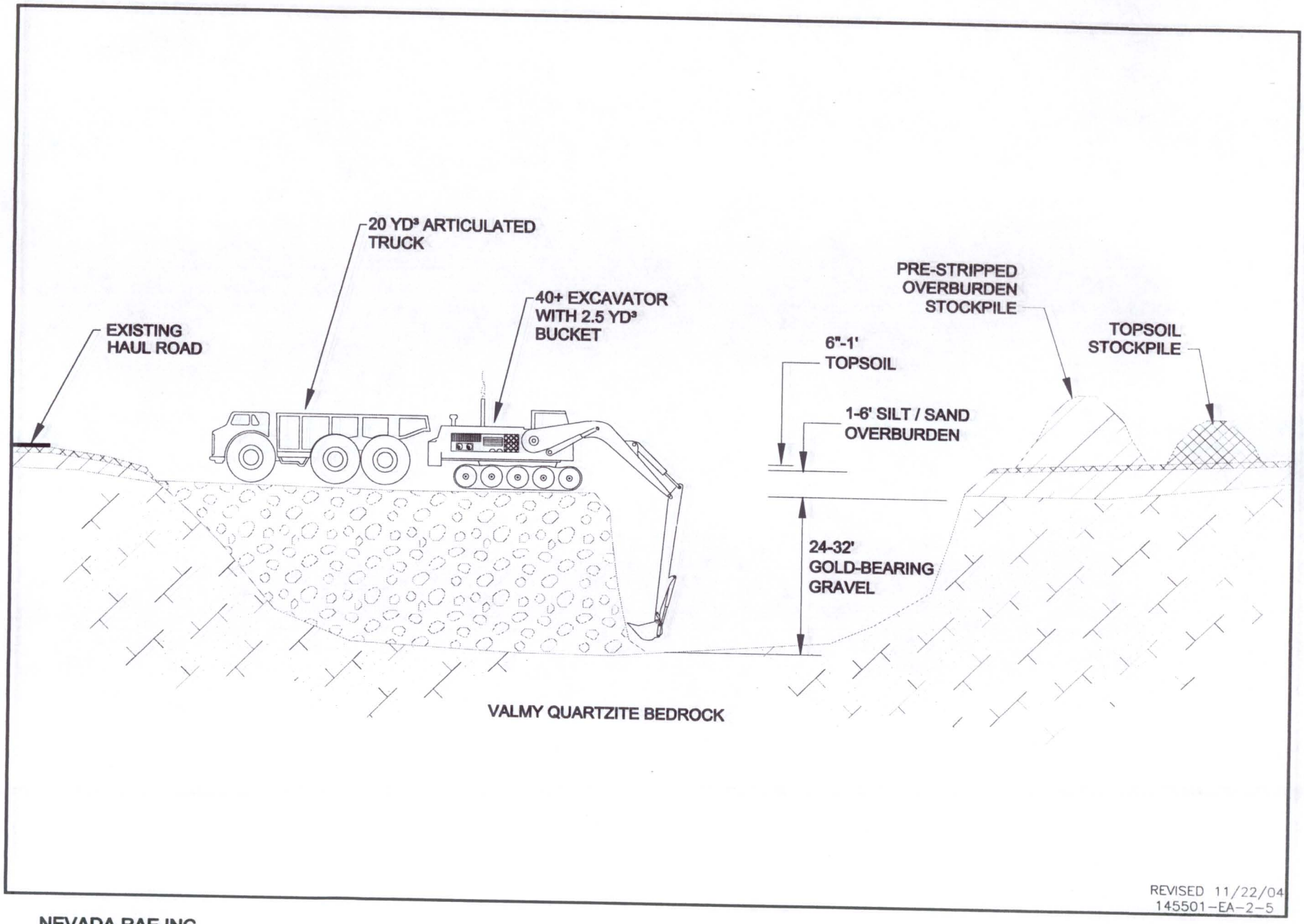

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FIGURE 2-4
GRAVEL EXCAVATION SECTION
LOOKING UPSTREAM (WEST)

Mining would commence on the Black Rock Canyon reserve area that straddles Sections 4 and 9, T 29 N, R 46 E as illustrated in **Figure 2-5**. The proposed annual mining sequence is also illustrated in **Figure 2-5**. The block to be mined within a given year would be divided into cells. Using this sequence and mining pattern, one average cell would provide sufficient gravel for one month of production, approximately 40,000 to 45,000 bulk cubic yards. The disturbance associated with a cell would be approximately 1.5 acres consisting of 0.92 acres of mining area, 0.46 acres for topsoil and overburden stockpiles, and 0.2 acres for access roads to the cell.

The sequence of stripping and stockpiling soil and overburden, excavating pay gravels, and backfilling for reclamation would require three active cells. The maximum disturbance at any one time would consist of three mining cells (3 x 0.92 acres = 2.8 acres), topsoil and overburden stockpiles for three mining cells (3 x 0.46 acres = 1.4 acres), access roads (3 x 0.2 acres = 0.6 acres), portable screen set-up site (0.9 acres), storm water dam/residual water containment (0.5 acres), initial topsoil stockpile area (0.1 acres), and exploration and grade control test sites and roads (1.2 acres), for a total of 7.5 acres.

The screened gravel from each cell would be transported to the washplant located at the mill site. Approximately eight acres of private lands would be disturbed for the mill site facilities. The mill site process is illustrated in **Figure 2-6**. Up to 1,000 cubic yards of minus three-inch sand and gravel would be transported to the washplant each day. The washplant is designed to accommodate up to 150 cubic yards of material per hour. The washplant utilizes a feed hopper/vibrating grizzly with high-pressure water sprays to remove material greater than two inches and debris. The undersize material would enter a trommel with a 10-foot scrubbing section that breaks up the clay and separates the material in the screening section. Minus ¼-inch material is diverted to the sluice box and plus ¼-inch material would be discharged out of the trommel onto a stacker belt to be stockpiled prior to transportation back to the mine site for use in reclamation.

The sluice box would be equipped with a series of riffles that capture the coarser gold particles. Overflow from the sluice box containing the fine gold would drop into a sump. This slurry would be pumped to a vibrating screen deck and the material greater than 1/8-inch would be discharged to a stockpile for transport back to the mine site for use in reclamation. The minus 1/8-inch material is fed to a Falcon SB2500 centrifugal bowl for fine gold recovery. The barren slurry discharged from the bowl would flow into a classifier or sand screw that would pull out the barren, coarse sand for stockpiling. It then would be dried before transportation back to the mine site for use in reclamation. The remaining slurry would be directed to the series of four settling ponds where the silt and clay particles would be allowed to settle out of the slurry. This fine material would be periodically removed with an excavator and stockpiled for drying before transportation to the mine site for use in reclamation. The clear water would be collected in a sump at the fourth settling pond and would be recirculated to the washplant.

The heavy mineral concentrate from the bowl would be further treated in the gold room with a Gemini concentrating table. This table separates the fine gold from the other heavy minerals. The gold flakes, grains, and dust would be sampled, weighed, and shipped to the refinery.

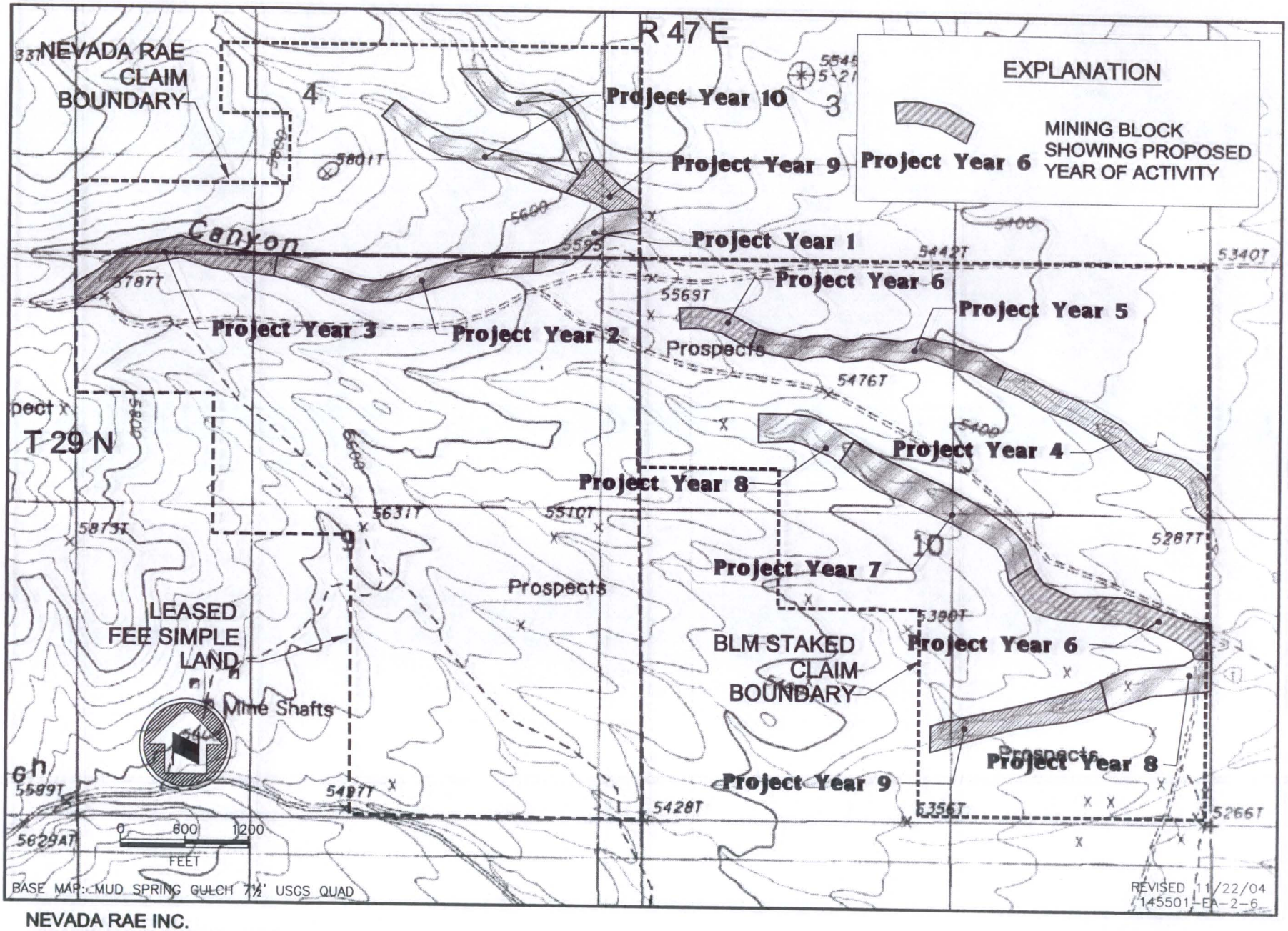

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FIGURE 2-5
PROPOSED MINING BLOCKS

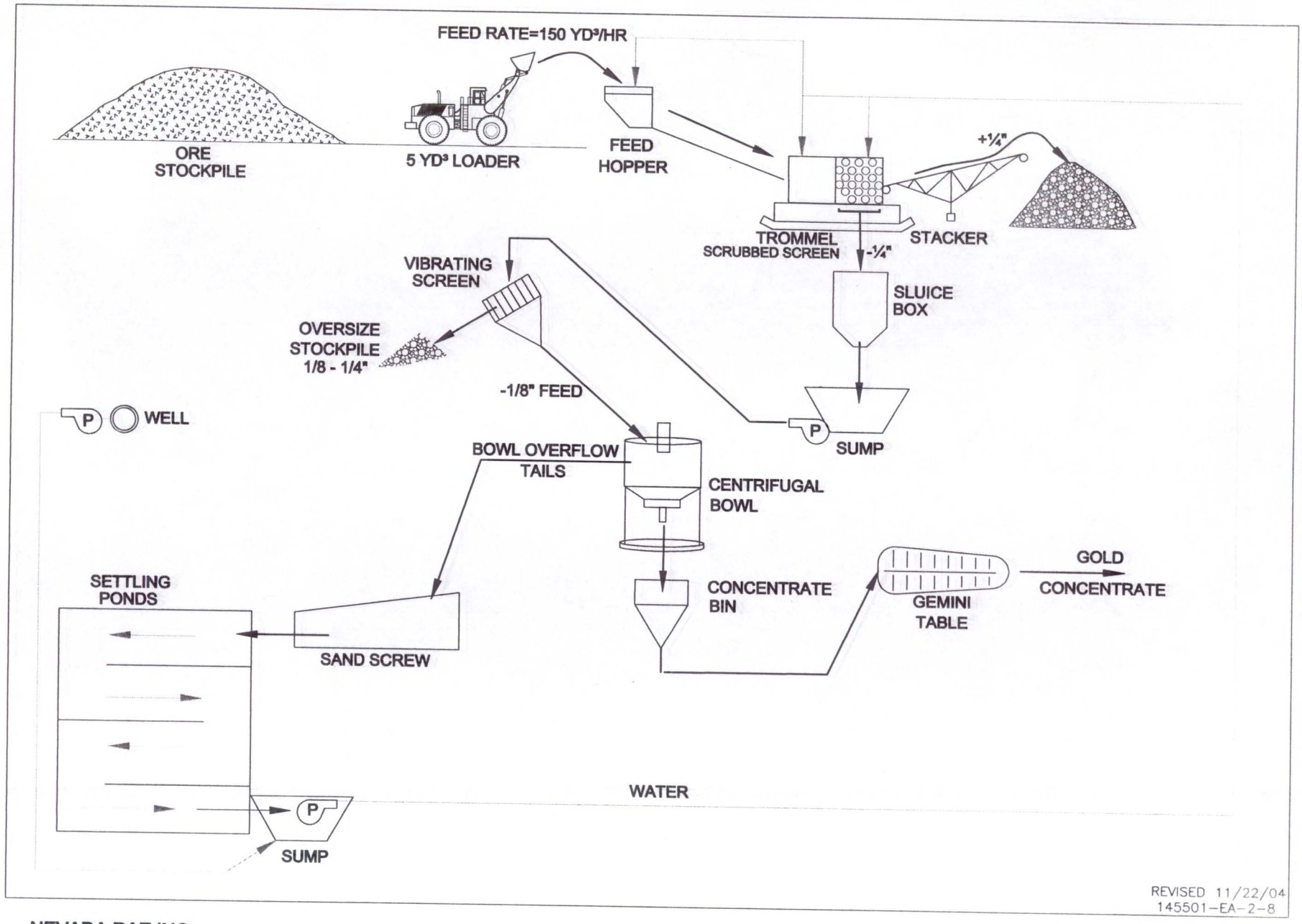

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FIGURE 2-6
WASHPLANT SET-UP

The settling ponds would be constructed at the mill site. Topsoil would be stripped and stockpiled for reclamation. The four ponds would be excavated to a depth of 10 feet with length and width of 120 and 70 feet, respectively. The ponds would be interconnected to flow with a two-foot free board. The sides would be sloped at 1:1. Each pond would accommodate 350,000 gallons of water, for a total storage capacity of 1.4 million gallons. Assuming an average consumption of 1,150 gpm, there would be sufficient volume for a settling time of more than 24 hours. The settling ponds would be unlined as approved in the NDEP Water Pollution Control Permit due to the lack of chemicals in the ore processing.

The process plant requires between 1,000 and 1,500 gpm water; 750-1,000 gpm to the grizzly/trammel-scrubber, 150 gpm to the Falcon concentrator, and 50 gpm consumed in the gold room for concentrate cleanup. Approximately 10-15 percent of make-up water is required due to evaporation losses. The make-up water would be added at the sump in the fourth settling pond.

Power would be supplied by the existing 23,000 volt power grid and reduced to 480 volts. Make-up water would be supplied from two wells. One 522-foot deep well can supply water at the rate of over 675 gpm and the second 420-foot deep well can supply water at the rate of 375 gpm. Well water would also be used for dust control on the haul road.

The mill site would be enclosed by an 8-foot cyclone fence with three access gates. The office would be a 12 x 40-foot mobile trailer placed on a 16 x 48-foot concrete pad. A 8 x 40-foot container on a 16 x 48-foot concrete pad would be used for the gold room. The wash plant would be covered by a 30 x 40-foot metal building on a 45 x 40-foot concrete pad and the maintenance/storage facility would be a 30 x 40-foot metal building on a 30 x 60-foot concrete pad.

Fuel storage would consist of one 10,000-gallon diesel fuel storage tank, one 200-gallon gasoline storage tank, and one 200-gallon waste oil storage tank. Fueling of the equipment at the mine site would be conducted with a 1,600-gallon fuel truck. The fuel storage area would be bermed and lined with an HDPE liner to contain potential spills. The berm would provide containment capacity of 110 percent of the combined tank capacities.

Three portable toilets would be located at the office, gold room, and at the mine site. Two 600-gallon water tanks would store potable water for gravity feed to gold room and the maintenance facility.

The mine area would be reclaimed through concurrent reclamation. Washed gravels would be returned to the mine area for deposition into the excavated blocks. The fines from the settling ponds would be mixed with the salvaged topsoil and redistributed on the mined areas following grading. A BLM-approved seed mix would be used for revegetating the site. Haul roads adjacent to the mined areas would be ripped, followed by topsoil distribution and seeding. The haul road between the mill site and the mining area would be left in place as public access; however, waterbars would be placed as necessary. The mill site would be reclaimed by removal of all buildings and equipment, demolition of all concrete pads followed by in-place burial of the concrete, and backfilling the settling ponds. All compacted surfaces would be ripped, and the area would be seeded.

2.2.1 Standard Operating Procedures / Environmental Protection Measures

Throughout this project, NRG would initiate best management practices (BMPs) to prevent unnecessary or undue degradation to the environment to the greatest possible extent.

Air Quality

NRG, in compliance with the Nevada Division of Environmental Protection (NDEP) Surface Disturbance Permit, proposes to use BMPs during the proposed project such as undertaking road maintenance activities to reduce fugitive dust emissions. Application of water and/or a dust suppression chemical, such as magnesium chloride, by water trucks would be done, as needed, in areas along roads and areas of mining disturbance. Two 1000-gallon water trucks would be dedicated for this purpose. Water would be procured from the WM-1 well permitted on BLM land next to the wash plant. It is anticipated that only a Class III permit would be required by NDEP. Currently the air permit requirements are under evaluation by NDEP.

Cultural and Paleontological Resources

All proposed mining activities would avoid cultural resource sites identified within the Project Area. A qualified archaeologist would be utilized as needed to ensure that cultural sites are not impacted.

NRG's employees and contractors would be informed of the potential for cultural resources and would be required to avoid disturbing, altering, or destroying any scientifically important remains or any historical or archaeological site, structure, building or object on federal land. If exploration activities uncover human remains, NRG would cease all earth disturbing activities within 30 meters of the discovery, and call the BLM Field Office Manager and county law enforcement as soon as the discovery is made.

Additionally, NRG would, within 24 hours, notify proper authorities and the BLM if subsurface cultural resources are discovered during construction, operation, or reclamation activities. NRG would immediately cease earth-disturbing activities within 100 meters of the discovery, until resources can be examined within 48-hours, by the proper authorities and/or a BLM-approved archeologist. All applicable state and federal regulations related to such an event would be adhered to by NRG, and earth-disturbing activities would only resume once cleared by the BLM or other appropriate authority.

In the event that significant fossiliferous deposit(s), specifically vertebrate fossil deposits, are located during construction, operation, or reclamation activities, the BLM would be notified, and measures would be taken to avoid the fossil(s).

Water (Surface/Ground)

Access across seeps and springs would be avoided where possible although none currently exist in the Project Area. If required, culverts, rolling dips, armoring, and/or straw bales would be utilized to protect drainages. Roadway erosion controls, including waterbars and ditches, would be installed to protect existing water quality. The potential exists to intercept some ground water

in the gravel extraction. The water would be allowed to infiltrate into the gravels down-gradient of the active mining block, within the same drainage.

Wildlife

Land clearing and surface disturbance would be timed to prevent destruction of active bird nests or young of birds during the avian breeding season (March through July, annually) to comply with the Migratory Bird Treaty Act (MBTA). If surface disturbing activities are unavoidable, NRG would have a qualified biologist survey areas proposed for immediate disturbance for the presence of active nests.

If active nests are located, or if other evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), the area would be avoided to prevent destruction or disturbance of nests until the birds are no longer present. Avian surveys are proposed to be conducted only during the avian breeding season and immediately prior to NRG conducting mining activities that result in disturbance. After such surveys are performed, and disturbance created (i.e., road construction and mineral development), NRG would not conduct any additional disturbance during the avian breeding season without first conducting another avian survey. After August 31, mining activities would continue; no further avian surveys, in compliance with MBTA, would be conducted until the next year.

Special Status Species

To minimize potential impacts to sage grouse, NRG proposes to avoid known leks/strutting grounds. NRG would not conduct mining activities (i.e., road building, screening, excavation) within two miles, or other appropriate distance that is based on site-specific conditions, of any known sage grouse leks/strutting ground during the period of March 1 through May 15.

Raptor nests identified in the field as being active would be avoided.

In the event that special status plant or wildlife species are identified in the Project Area, NRG would avoid the habitat where possible, and work with a BLM specialist to evaluate possible impacts and devise an alternative plan.

Fire Management

NRG would comply with all applicable federal and state fire laws and regulations, and shall take all reasonable measures to prevent and suppress fires in the area of operations. NRG and contractors are required to carry fire extinguishers, hand tools, and/or backpack-type water pumps in their vehicles to suppress small fires.

Solid and Hazardous Waste

The Project would not generate, use or dispose of any hazardous waste. Petroleum products would be used on-site. Petroleum products are excluded as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability act (CERCLA), Section 101 (14). Diesel, oil, and lubricants would be transported to the site in portable containers (e.g., tanks in the pickup trucks for diesel fuel). Storage of fuels would occur at the mill site. If regulated materials (petroleum products) are spilled, measures would be taken under NRG spill

response guidelines to control the extent of the spill, and the appropriate agencies would be notified in accordance with the applicable federal and state regulations.

Invasive Non-Native Species

NRG would be responsible for controlling all noxious weeds within the Project boundary until the reclamation activities have been determined to be successful and released by the BLM.

BLM would provide a State of Nevada invasive, non-native weed list and a list of chemicals approved for use on public land. NRG would obtain approval from the appropriate BLM officer for any and all herbicide applications, including types and quantities.

Quality Assurance Plan

NRG would provide site inspection of all mining operations and road construction on a daily basis. This includes on the site inspections of the operation as well as phone or radio contact with the mining crews to determine if any problems are encountered. Sites would be examined to ensure that cultural sites, wetlands, springs, seeps, and drainages are avoided. In addition, any stipulations, such as seasonal restrictions, would be strictly enforced by NRG. NRG would provide an activity update to the BLM and (NDEP), which would include road and mine development, and reclamation, on an annual basis. The report would be submitted by March 1st of each year.

2.3 ALTERNATIVES TO THE PROPOSED ACTION

There are two alternatives to the proposed action: (1) wet processing at the mine site and (2) no action.

2.3.1 Wet Processing at the Mine Site Alternative

Under this alternative, the washplant and other mill site facilities would be located central to the mining blocks. NRG would need to develop new water sources or haul water three to four miles from the existing wells near Highway 306 to the mining area.

Due to the topographic features in Sections 4, 9, and 10, Section 10 would be the probable location of the mill site. The existing haul road would be used for access and would not require additional widening. A new haul road would be constructed between the mill site and the mine areas. The amount of disturbance for the road would depend on the final selection of the mill site, but is anticipated to be approximately eight acres. The total acres of disturbance under this alternative would be similar to the Proposed Action, except haul road development would be greater (Table 2-2). All other aspects of the mining would be the same as the Proposed Action.

Table 2- 2: Wet Processing at the Mine Site Alternative Disturbance

Project Component	Acres Public Land	Acres Private Land	Total Acres
Section 4 Reserves	22.5		22.5
Section 9 Reserves		22.1	22.1
Section 10 North Resource	22.6		22.6
Section 10 Middle Resource	25.5		25.5
Section 10 South Resource	10.3		10.3
Haul Road	8.0		8.0
Mill and Associated Buildings	0.8		0.8
Mill Yard and Stockpile Area	5.9		5.9
Tailings Ponds	1.1		1.1
Storm Water Ponds	0.2		0.2
Totals	96.9	22.1	119.0

2.3.2 No Action Alternative

Under the No Action Alternative, the Proposed Action or alternative would not be approved by the BLM. The objective of the No Action Alternative is to describe the environmental consequences that would result if the Proposed Action was not implemented. The No Action Alternative forms the baseline from which the impacts of all other alternatives can be measured.

Selection of the No Action Alternative would generally be inconsistent with the BLM multiple use mission and policy of making public lands available for a variety of uses as long as these uses are conducted in an environmentally sound manner. The subject lands were not withdrawn for any special use and were open, unappropriated lands when unpatented mining claims were located.

Under the No Action Alternative, NRG would not develop the Black Rock Canyon ore body as presently defined. The area would remain available for future mineral development or for other proposals as approved by BLM policy.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

Other alternatives considered but not analyzed in detail were utilization of haul roads other than the existing haul road (circa 1983) to limit reclamation liability, and mining solely on Fee land. The haul road alternative was eliminated since the condition of the alternative haul road was poor and less direct than the existing haul road. Further use of the other haul road would present a safety hazard to other public usage. Mining solely on Fee land was eliminated as an alternative since the economics of the mining venture would not justify the capital commitment of the mill.

3.0 AFFECTED ENVIRONMENT

This section describes the affected environment in the vicinity of the Black Rock Canyon Project Area. The Project lies on the east flank of the Shoshone Mountains, with drainage through the Project Area to Crescent Valley. In general, the area is arid (less than 10 inches of annual precipitation), and mean monthly temperatures range from 23 °F to 75 °F. The topography in the area is typical of that found in the Basin and Range Physiographic Province of the Western United States.

Resources listed in the Table 3-1, including the fifteen Critical Elements of the Human Environment, whose review is mandated by law or regulation, have been reviewed with respect to the Proposed Action and alternatives. In addition to the Critical Elements, the BLM must consider other resources that occur on public lands, or issues that may result from the implementation of the Proposed Action. Those marked as not affected would not be impacted by the Proposed Action, or are not present in the area of the Proposed Action.

Table 3- 1: Summary of Affected Elements for the Proposed Action

ELEMENT	Affected		ELEMENT	Affected	
	Yes	No		Yes	No
*Air Quality	X		Soils	X	
*ACECs		X	Vegetation	X	
*Cultural	X		Visual Resources	X	
*Environmental Justice		X	*T & E Species	X	
*Farmlands (Prime/Unique)		X	*Paleontological Resources		X
*Floodplains		X	*Wastes (hazardous or solid)		X
Lands	X		*Water Resources	X	
Minerals	X		*Wetlands/Riparian		X
*Native American Religious Concerns		X	*Wild & Scenic River		X
*Noxious and Invasive Species	X		*Wilderness		X
Recreation	X		Wildlife	X	
Range	X		Wild Horses & Burros		X
Forestry		X	Socioeconomics		X

* Denotes one of the Critical Elements of the Human Environment

3.1 PROPOSED ACTION

3.1.1 Land Use and Access

The major land uses within the area include livestock grazing, wildlife habitat, dispersed recreation, and mining. Three rights-of-way exist in T 29 N, R 48 E, Section 24: Nev044669 (State Route 306), N 56088 (transmission line right-of-way, 40-foot width), and N 2434 (transmission line right-of-way, 20-foot width). No other major rights-of-way or land actions occur on public lands. Locally, a transmission and water well right-of-way applications have

been submitted and are being reviewed. The public land sections were previously under leases for oil and gas, but the leases expired in 1988 (N 16972 and N 16973).

Access to the mill and mine area is via State Route 306 south of the town of Crescent Valley (See Figure 1-2). The proposed existing haul road lies immediately west of the prior mill site and is not evident due to recent reclamation at its access point.

3.1.2 Air Quality

The Project Area is located within the Crescent Valley Hydrographic Basin (#54). The boundary of this basin also serves as the air basin for the purposes of monitoring air quality. The Crescent Valley Hydrographic Basin is currently unclassified for all pollutants having an air quality standard (40 CFR 81.329). No NO_2 or lead non-attainment areas are located within the State of Nevada. The existing air quality is typical of the largely undeveloped regions of western United States.

3.1.3 Mineral Resources

The ore deposits in Black Rock Canyon are found in a thin veneer (generally less than 30 feet deep) of dry alluvium in Tertiary to perhaps Quaternary age unconsolidated gravels. The moderately rounded gravels consist of sand to subangular, boulder-side material with intervening layers of silty clays. The source of the gravels appears to be metasediments with quartzite being the predominant constituent. Ordovician (?)[1] age quartzites of the Valmy Formation outcrop on the ridges separating the drainages. The dark color of the quartzites is due to desert weathering or a surface coating of manganese oxide. The formation is mostly massively bedded, but thinner beds of chert and siltstone are known to occur in the Valmy bedrock section. The dry gold-bearing gravels of interest lie directly on the Valmy bedrock.

3.1.4 Water Resources

No perennial waters occur within the lower portions of Black Rock Canyon and the other drainages within the Project Area (SRK 2004). The lack of riparian vegetation, water deposited debris, and eroded banks were indications that these drainages are ephemeral within the Project Area. Wyoming big sagebrush and other upland species currently grow in the drainages. Based on the guidance in the *Final Summary Report: Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest* (Corps of Engineers [COE] 2001) and on the field survey (SRK 2004), no waters of the U.S. occur on the subject lands.

In addition, the COE has previously determined that several drainages emanating from the east side of the Shoshone Range enter the closed basin of Crescent Valley (COE 2002), and because these waters are isolated and have no tie to interstate or foreign commerce, then the COE may no longer take jurisdiction over these waters. The drainage in Black Rock Canyon also enters the Crescent Valley Hydrologic Basin, and therefore, should also be considered isolated waters.

[1] The age of the Valmy Formation quartzites is not known exactly and this uncertainty as to the age is indicated by the question mark. This is standard geologic notation for indicating uncertainty regarding the time frame of events or origins.

The only water resources in the Project Area are the two wells that exist on the prior mill site proximal to the proposed mill site. These wells have a static water level that is 200 feet below the surface and have not been impacted by historical milling that was conducted within 100 feet of the wells. The water quality of these wells meets MCL and Nevada Priority 1 Standards. Ground water in vicinity of the mine is at least 200 feet below the surface based upon qualitative information from other operators' exploratory drilling. There are no water wells between the mine or mill site and there are no wells immediately down gradient of the proposed production wells. Prior potentiometric mapping for the Water Pollution Control Permit shows the well locations to be in a hydrological sink which means ground water actually drains into the mill site.

With exception of an abandoned barite open pit in older Paleozoic rocks about one mile up the watershed from the proposed mining operation, no surface water bodies exist proximal to the mine area. No surface water bodies exist between the mine and mill site, a down gradient distance of about four miles.

The nearest surface water bodies to the mill site are alkali flats about four miles to the east that could represent a groundwater discharge point. However, the elevation of the groundwater potentiometric surface at the mill site and this distant surface water body are at the same elevation suggesting minimal hydrologic interaction.

3.1.5 Soils

The soils described in **Table 3-2** are mapping units designated from the NRCS soil surveys (**Figure 3-1**). Three soil associations, in addition to gravel pits, are found within the Project Area and include: Berning-Alley association, Slaven-Linrose-Cleavage association, and Oxcorel-Rednik-Veta association. The Oxcorel-Rednik-Veta association is the dominant association. All of these mapping units are predominantly sand and gravels to gravelly loams with relatively low fine-grained sediment or clay fractions. The gravel pit classification by NRCS refers to the previous mine disturbance.

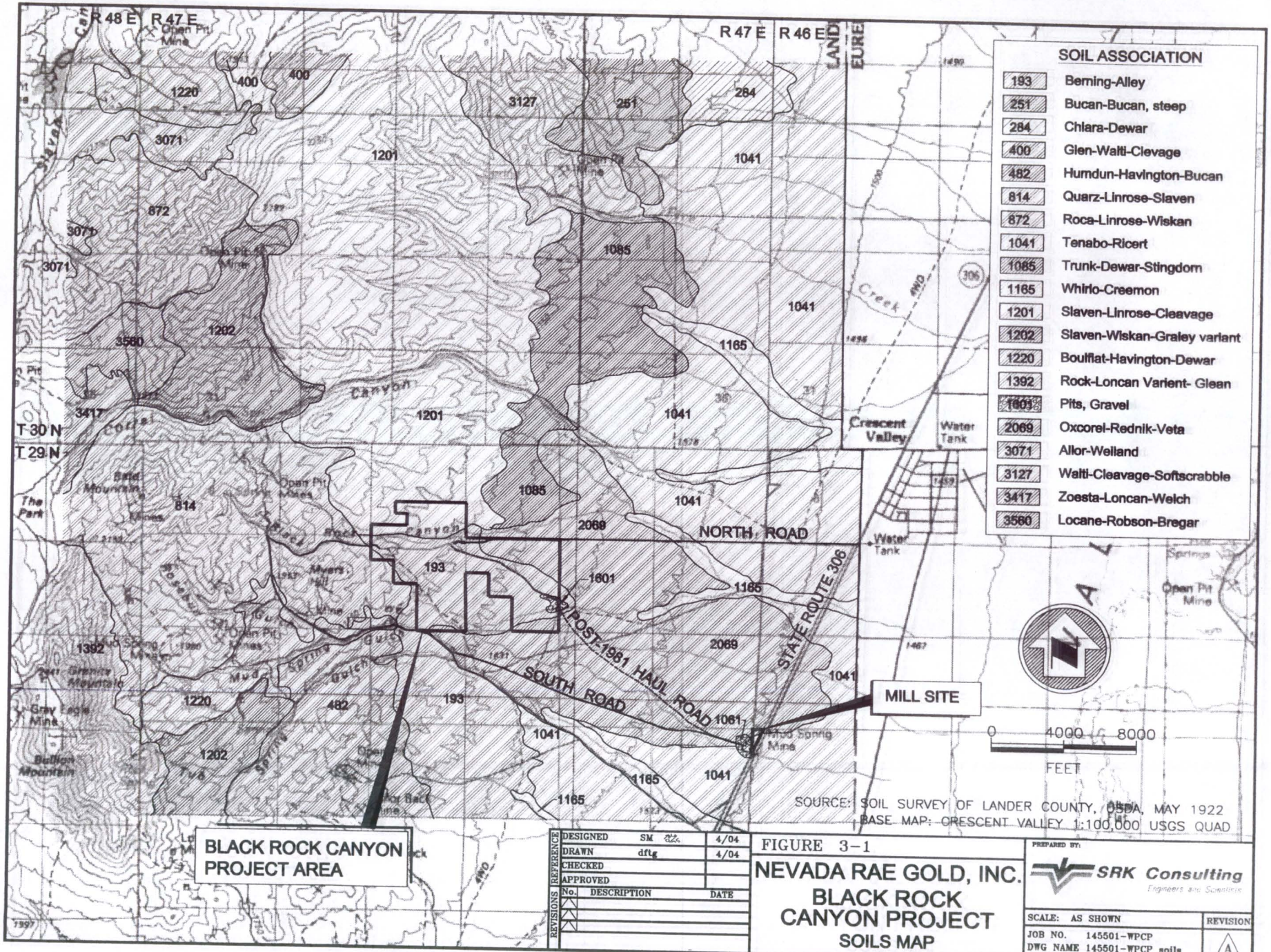
Oxcorel-Rednik-Veta association consists of very gravelly to sandy loam. This well drained unit forms a relatively flat pediment gravel remnant of the old alluvial fan from the Shoshone Mountain front. The Oxcorel and Rednik soils are included in the Loamy 5-8" precipitation zone (p.z.) range site and the Veta soil is included in the Loamy 8-10" p.z. range site. The sequence then changes to the Berning-Alley association across most of the gold bearing drainages of Black Rock Canyon. This unit varies from highly coarse cobbles to sand loam with a localized clay zonation. The clays, where present, have low to medium plasticity and may represent montmorillonitic ash falls that have been preserved on the highlands above the stream channels. The stream channels within the Berning-Alley association are braided and form an almost hummocky geomorphology between tributaries. Both the Berning and Alley soils are in the Loamy 8-10" p.z. range site.

To the north of Black Rock Canyon lies the Slaven-Linrose-Cleavage association. This gravel loam appears to be more associated with Tertiary-age volcanics and sediments forming broad slightly sloping hillsides with good vegetative cover. The Slaven soil is included in the South Slope 12-16" p.z. range site, the Cleavage soil is included in the Claypan 12-16" p.z. range site, and the Linrose soil is included in the Steep Gravelly Loam 14+" p.z. range site.

Table 3- 2: Soil Units, Soil Properties, Restrictions and Suitability for Reclamation

Map Unit Name and Number	Soil Name	Landscape Position	Texture	Depth to Duripan (in)	Depth to Bedrock (in)	Slope (%)	Rock Fragments (%)	pH	Restrictions	Suitability for Reclamation
193 Berning-Alley assoc.	*Berning*	Side slopes of fan piedmont remnants	COXL	-	> 60	15-30	60-70	7.2	Large stones	Poor
	Alley	Side slopes of fan piedmont remnants	VGRL	-	> 60	15-30	0-10	7.6	Small stones	Poor
1201 Slaven-Linrose-Cleavage assoc.	*Slaven*	South- and West-facing side slopes of mountains	VGRL	-	22	30-50	0-15	7.0	Droughty, small stones, erodes easily	Poor
	Linrose	North- and East-facing side slopes of mountains	GRL	-	26	50-75	0-10	7.4	Erodes easily	Poor
	Cleavage	Spur and crests of mountains	VGRL	-	15	30-75	0-10	7.0	Small stones, droughty	Poor
1601 Pits, gravel	-	Fan piedmonts or beach plains	-	-	-	-	-	-	-	-
2069 Oxcorel-Rednik-Veta assoc.	*Oxcorel*	Summits of fan piedmont remnants	GRSL	-	20-60	4-8	0-10	8.4	Too arid, rooting depth, excess sodium	Poor
	Rednik	Side slopes of fan piedmont remnants	VGRSL	-	47-60+	8-15	0-5	8.6	Too arid, small stones, excess sodium	Poor
	Veta	Inset fans	VGRFSL	-	20-60+	2-8	0-5	8.0	Droughty, small stones	Poor

*In accordance to National Soil Information System (NSIS) guidelines, soil textures and subclasses are shown in shorthand. L=loam, SI=Silt, CO=Cobbly, S=Sandy, GR=gravelly, COX=Extremely cobbly, VGR=Very gravelly, FS=Fine sand.



REVISIONS	No.	DESCRIPTION	DATE
REFERENCE	DESIGNED	SM	4/04
	DRAWN	dftg	4/04
	CHECKED		
	APPROVED		

FIGURE 3-1

NEVADA RAE GOLD, INC.
BLACK ROCK CANYON PROJECT
SOILS MAP

PREPARED BY: SRK Consulting Engineers and Scientists

SCALE: AS SHOWN | REVISION: A

JOB NO. 145501-WPCP
DWG NAME 145501-WPCP soils

Of the three prominent soil mapping units described above, the most erodible unit appears to be the Berning-Alley association. This is due to the variability in soil types no doubt related to the more recent deposition of stream gravel and preservation of clay hills. However, the slopes along the channels within the Berning-Alley soils, which are the location of the gold deposits, vary from greater than 3:1 to less than 1:1 without undercutting or slope failure, even when the vegetative cover is meager. In reclaim areas where a 1:1 slope was backfilled and seeded, little if any rilling has occurred indicating that the soil matrix drains very well but is also nicely graded or well sorted.

The Oxcorel-Rednik-Veta soil association from the mill site and along the haul road to the mine site appears very erosion resistant and well drained. Some erosion or outwash is evident where multiple drainages coalesce toward Highway 306, but some of these characteristics may have resulted from road borrow practice versus hydrological down-cutting.

Table 3-3 documents guidelines for determining reclamation suitability. Specific soil properties contribute to a soil's suitability for reclamation. Restrictive features, such as a physical or chemical property that makes a soil unsuitable for plant growth or causes structural instability, are used to determine appropriate soil use and limitations. All of the soils in the Project Area have one or more limitations for topsoil reclamation. The following restrictive features are discussed below: soil depth; erosion; gravel/rock fragments; restrictive layers; and pH.

Table 3- 3: Guide to Determining Reclamation Suitability

Characteristic	Good	Fair	Poor
Depth to Bedrock (in)	>40	20-40	<20
Depth to Restrictive Layer (in)	>40	20-40	<20
Slope (%)	<8	8-15	>15
Rock Fragments (%)	<5	5-25	>25
pH	6.1-7.8	>5.5-<6.1, >7.8-<8.4	<5.5, >8.4
* modified from NRCS topsoil suitability table 603-24 (USDA-NRCS, 1983)			

- **Soil Depth**: The depth of soil available for root growth and exploration is significant in semi-arid to arid regions where vegetation depends on water stored in soil for survival during long periods without precipitation. Shallow soils do not provide significant soil volume and water holding capacity for deep-rooted plants organic matter and initiates or contributes to soil aggregate destabilization. Long lasting erosion can result in propagation of gullies, exposure of subsurface soils, and poor plant growth. Steep slopes do not allow for rapid water infiltration. Generally, soil profiles on steep slopes are shallow and poorly developed.

- **Gravel/Rock Fragments:** Gravel and rock fragments reduce the water holding capacity of a soil in direct proportion to their volume. A soil containing 35% or more gravel three inches in diameter is considered excessive.

- **Restrictive Layers:** Duripans are subsurface horizons densely packed or cemented by silica and create an impermeable layer. Duripans constrain plant growth and promote water runoff and erosion because rainwater cannot penetrate through the cemented material.

  Calcic horizons contain accumulations of pedogenic (soil) carbonate. The amount of carbonate in a soil horizon determines the particular stage of calcium carbonate development: Stage I indicates the least amount of carbonate development (thin coatings on the undersides of gravel) while Stage V indicates the greatest amount of carbonate development (pure, cemented pedogenic carbonate) and can impede root growth and water infiltration. Stage I is the least restrictive while Stage V is the most restrictive.

- **pH:** Soil pH, the measurement of soil acidity or alkalinity, influences nutrient availability and microorganism activity. Soil pH influences the types of vegetation that can survive within a particular soil. Tolerance to acid and/or alkaline conditions varies depending on plant species. Soils with a pH of 6.1-7.8 typically favor optimum plant growth because nutrients are readily available within this range. Soils with high pH values (7.8 or greater) contain elevated amounts of calcium and magnesium and insufficient amounts of iron, manganese, copper, zinc, phosphorus, and boron. Soils with low pH values (5.5 or below) contain low levels of calcium, magnesium, and phosphorus. Low pH levels increase the solubility and mobility of heavy metals such as aluminum and iron in soil. As solubility increases, heavy metals can more readily move downward with water through the soil column to aquifers and/or surface waters.

3.1.6 Vegetation

The vegetation consists of two major plant communities (SRK 2004). The lower elevation valley floor is a shadscale-bud sagebrush-bunchgrass community and the upper elevation is a Wyoming big sagebrush-rabbitbrush-bunchgrass community. A transition zone occurs between the two plant communities which contains plants common to both communities.

The sagebrush-rabbitbrush-bunchgrass community consists primarily of Wyoming big sagebrush, with varying amounts of rabbitbrush. The major grass species are Sandberg bluegrass and bottlebrush squirreltail, with cheatgrass in varying amounts throughout the area. Great Basin wildrye is scattered along portions of the drainages. Major forbs include tapertip hawksbeard, death camas, salsify, false dandelion, lactuca, phlox, buckwheat, vetch, and globemallow. This plant community is representative of the Loamy 8-10" p.z. range site. This plant community is also present in the drainages at the lower elevations. Portions of the Project Area include a gravel pavement. Grasses and forbs are not abundant in these area and the interspaces between shrubs is greater where the gravel pavement occurred than where it is lacking.

The lower elevation portion of the Project Area, along the Haul Road route, is dominated by shadscale, bud sagebrush, rabbitbrush. This plant community is representative of the Loamy 5-8"

p.z. range site. Grasses are sparsely distributed and included Great Basin wildrye, bottlebrush squirreltail, cheatgrass, and Sandberg bluegrass. In some locations, inland saltgrass occurs. Globemallow is the dominant forb in this plant community.

Several areas appear to have been burned in the past. These small patches occur within the other vegetation types and are dominated by cheatgrass and tansy mustard.

3.1.7 Wetlands/Riparian

No riparian vegetation occurs in the major drainages (SRK 2004). The vegetation in the drainages includes the same species that occur on the adjacent slopes. An occasional willow plant can be found, indicating that subsurface moisture is near the surface for at least a portion of the year, but extended areas of willow or other riparian species do not occur in the drainages within the Project Area.

3.1.8 Non-Native, Invasive Species

Scotch thistle was observed during the baseline field survey on old mine disturbance in the NW quarter of Section 10 in an unnamed drainage (SRK 2004). This is in the area proposed to be mined in 2011. Cheatgrass, an invasive species was common on many of the south facing slopes in Sections 4 and 9. These areas appeared to have been burned in the past and the drier slopes converted to annual grassland. BLM has indicated that musk thistle, perennial pepperweed, Russian knapweed, hoary cress, and saltcedar are other noxious weeds that are found in Crescent Valley,

BLM Manual 9015, Integrated Weed Management, requires that all ground-disturbing projects and any projects that alter plant communities are evaluated to determine the risk of introducing or spreading noxious weeds. The relatively few plants of Scotch thistle on the subject lands and presence of other noxious weeds in the Crescent Valley combined with the proposed mining disturbance results in a moderate risk rating for noxious weeds.

3.1.9 Range

The Project Area is within the Argenta allotment. This allotment contains approximately 157,000 acres of private land and 122,370 acres of public land. There are 16,963 active Animal Unit Months (AUMs) in the allotment. There are no range improvements located within the Project Area.

3.1.10 Wildlife

Species observed, or indicated as being present by their sign, that occur within the Project Area include raven, northern harrier, meadowlark, horned lark, lark sparrow, Brewer's sparrow, mule deer, pronghorn antelope, coyote, black-tailed jackrabbit, garter snake, and sagebrush lizard (SRK 2004). The area is not identified as crucial range for any big game species, but is yearlong habitat for pronghorn antelope and winter range for mule deer.

No raptor nests are known to occur on the Project Area (SRK 2004); however, the Project Area does provide foraging habitat for a variety of raptor species.

3.1.11 Special Status Species

No special status species are known to occur on the subject lands (SRK 2004). Habitat along the lower elevation portion of the proposed haul road is primarily salt desert shrub, which is considered marginal habitat for pygmy rabbit (Hall 1946, Davis 1939). The habitat along the upper portion of the proposed haul road is primarily Wyoming big sagebrush-rabbitbrush/bunchgrass with inclusions of shadscale and greasewood. The rocky nature of the soils indicated that these areas were not optimum habitat for pygmy rabbit. The gravels that are proposed to be excavated from the drainages do not have sufficient fine material to provide the matrix necessary for stable burrows.

The Nevada viceroy is generally associated with riparian willows, which are the host plants for the larval stage. Willows are limited on the Project Area and no adults or larval stages of this species were detected on site (SRK 2004).

Several mine prospects occur in the general area, but none are extensive in nature or deep enough to be used as significant bat habitat (i.e., not suitable for hibernacula, maternity roosts, or day roosts). In addition, the lack of water on the subject lands reduces the variety of foraging habitat for bats.

Sagebrush vegetation suitable as sage-grouse winter habitat or early spring habitat occurs on the west portion of the Project Area. No leks are known to occur on the subject lands and the lack of riparian habitat indicates that brood rearing/summer habitat is not present.

Ferruginous hawks prefer to nest in isolated juniper trees within the sagebrush. No juniper trees occur in or near the Project Area. Habitat suitable for burrowing owls occurs within Crescent Valley and on the subject lands. No active burrows are known to occur on the subject lands (SRK 2004).

3.1.12 Cultural Resources

A survey was conducted by Vierra and Associates and no sites eligible for listing in the National Register of Historic Places were found (Vierra et al. 2004, BLM Report No. 6-2476(P)).

3.1.13 Native American Religious Resources

BLM initiated formal consultation through letters mailed on September 28, 2004. Further communication with tribal representatives, following the receipt of the letter and after an extensive tribal review period, did not produce any requested field tours, formal meetings, further review time, or the identification of Traditional Cultural Properties within or near the proposed project boundary. Detailed Native American Coordination and Communication files are located at the Elko and Battle Mountain BLM Field Offices and are considered confidential.

3.1.14 Visual Resources

The Project Area is located in the northern Great Basin section of the Basin and Range Physiographic Province. The Great Basin is characterized by a rhythmic pattern of isolated mountain ranges and broad sweeping basins. Clear skies and broad open vistas characterize this landscape. The Project Area includes rolling to angular hills and ridges with steep side slopes.

The area is covered with a mosaic of sagebrush-grasses and shadscale-budsage-grasses. Each of these vegetation types dominate a portion of the Project Area, but the vegetation types are intermixed in the areas adjacent to the proposed haul road. Vegetation colors include tawny gray, brown, dark green, gray-green, and green. Soil colors range from beige to a gray, which when exposed, contrast highly with the surrounding vegetation. Rock colors vary from light to dark brown.

Man-made features are mostly linear and predominately consist of roads, fences and power lines. Other visual intrusions in the area include mining developments (historic and recent). The horizontal lines of the existing roads, power lines, and fences in the area create weak to moderate contrasts with the gentle sloping lines of the Shoshone Mountains. However, the basalt flow exposed in Section 10, also add a strong linear element to the landscape.

The Project Area is within Visual Resource Management (VRM) Class IV. Class IV allows for activities that involve major modification of the existing character of the landscape. The level of contrast can be high, dominating the landscape and the focus of view attention. However, every attempt would be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of the characteristic landscape.

3.1.15 Recreation

The Project Area is generally isolated and undeveloped with no recreational facilities. Developed recreational opportunities are relatively sparse in this part of Nevada and it is assumed that users would travel to remote areas of the general region, particularly on weekends to recreate. General public recreation in the area of the proposed mining activities primarily includes off-highway vehicle (OHV) use, hunting, and camping. Other recreational activities include mountain biking, horseback riding, sightseeing, outdoor photography, nature study, wildlife viewing, bird watching, and rock collecting.

3.2 WET PROCESSING AT THE MINE SITE ALTERNATIVE

The description of the affected environment for the Wet Processing at the Mine Site Alternative would be the same as that for the Proposed Action.

3.3 NO ACTION ALTERNATIVE

The description of the affected environment for the No Action Alternative would be the same as that for the Proposed Action.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 PROPOSED ACTION

NRG has incorporated environmental protection measures into the Proposed Action to reduce potential impacts to the environment. Proposed environmental protection measures and reclamation measures are presented in Section 2.2.1. This section describes the impacts (direct, indirect, and residual) and mitigation measures associated with the Proposed Action.

4.1.1 Land Use and Access

The Proposed Action would disturb approximately 118 acres over a ten-year period. Due to concurrent reclamation, only 21 acres would be actively mined or included in the mineral processing at any one time (i.e., excavation, backfilling, and processing). Disturbed acres that have been reclaimed but have not had sufficient time for vegetation to establish and meet reclamation release criteria would increase "active mine disturbance" to approximately 60 acres by the fourth year of mining. This would remain the approximate "active mine disturbance" as the first areas revegetated are released and new acreage is disturbed.

The Proposed Action would not interfere with other land uses or prevent existing access to public lands. The existing access road through the proposed mill site would be closed to public access for public safety reasons. However, there are other existing roads into the general area and public access for other multiple uses would be maintained. The areas of active mining would not be available for other multiple uses during the period of mining, but would be available to the public following successful reclamation.

The existing rights-of-ways would not be impacted by the Proposed Action.

4.1.2 Air Quality

The existing road between the mining area and the mill site is graveled for most of its length; therefore, the generation of fugitive dust is anticipated to be less than the amount of fugitive dust generated from a dirt road. This impact would be further reduced by application of water or dust suppressant. Vehicle speeds would be reduced in areas of disturbance to minimize the potential for fugitive dust.

The mining process would also contribute to fugitive dust emissions, including excavation, hauling, and stockpiling of the gold-bearing gravels. However the ore process is a wet process with minimal dust emissions. Emissions from equipment and mining process are not anticipated to exceed Class III standards. There are no existing facilities, domiciles or other activities that are sufficiently close to the Project to be directly impacted by the Proposed Action.

4.1.3 Mineral Resources

Excavation of the veneer of gravels of Tertiary or perhaps Quaternary age for processing and eventual replacement into the same area is the direct impact to mineral resources. The removal of the gold particles changes the nature of these gravels. No direct impacts to bedrock formation below the gravels are anticipated.

4.1.4 Water Resources

There are no surface waters in the area proposed for mineral extraction or at the mill site; therefore, no impacts are anticipated to surface waters.

There is potential to intercept subsurface water within the drainages during spring (at the time of snow melt) while excavating the ore-bearing gravels. The amount of water intercepted is anticipated to be minimal. The water would be permitted to continue its subsurface flow through the downgradient gravels within the drainage. Sediment from the mining activity would be filtered during the continued subsurface flow.

The water used at the mill site would be contained in the process system or be lost to evaporation from the settling ponds. Fine materials removed during the milling process would be removed from the settling ponds and transported to areas under concurrent reclamation for use as growth media. Because no chemicals are proposed for the milling process, no potential exists for chemical degradation of water quality.

There would be some water losses through evaporation from the settling ponds and application of water to haul road for dust suppression. NRG has the water rights for these uses and would conserve and recover water when at all possible.

4.1.5 Soils

Impacts to soil would consist of increase potential for wind and water erosion due to the removal of the vegetation and salvaging of the topsoil. The loss of soil structure would decrease soil water holding capacity and potentially increase infiltration through the surface horizons. Soil microbial activity and soil productivity would also decrease. These impacts would be partially offset by the addition of fines from the settling ponds which would add to the soil moisture holding capacity when the soils are redistributed during reclamation. Disturbance would be incremental and would not occur all at one time, and reclamation would be concurrent, limiting the time period over which the soils would be exposed to wind or water erosion.

Erosion control measures implemented to reduce impacts to water quality would also reduce erosion of soils.

4.1.6 Vegetation

There would be a temporary loss of vegetative cover due the mining and milling process. Since this would be a concurrent reclamation project, no more than approximately 60 acres would be without vegetative cover for more than one field season. The PoO calls for backfilling, soil placement and reseeding on an annual basis, therefore renewed vegetative cover should start in early spring of the year following mining activity and reach reclamation vegetation release standards in three years. The seed mix would consist of a mix of native species suitable to the soils and elevation of the site, and would be approved by the BLM. The mill site would be reclaimed at the end of the mine life.

4.1.7 Wetlands/Riparian

Due to the lack of wetlands or riparian vegetation within the areas proposed for disturbance, there would be no impacts to wetlands or riparian zones.

4.1.8 Non-Native, Invasive Species

The Proposed Action has the potential to create conditions favorable for the establishment of non-native, invasive species and other undesirable plants. The use of suitable seed mixes with only certified and tested seed, combined with concurrent reclamation would reduce the potential for these non-native, invasive species and other undesirable plants to establish. The control of these species would occur after consultation with BLM and would be conducted with BLM-approved herbicides.

4.1.9 Range

Removal of 117 acres of vegetation represents approximately 16 AUMs, or approximately 0.1 percent of the total AUMs within the allotment. No change in the grazing permit is anticipated for this level of forage removal. Indirect impacts to livestock may include changes to grazing patterns or barriers to normal trailing activities between forage and water. However, the entire acreage of disturbance would not occur all at once and it is likely that the livestock would be able to move around the mining activity without measurable impact.

4.1.10 Wildlife

Impacts to wildlife would result from removal of habitat during the period of active mining and from the human presence in the area during mining. The total acreage of disturbance would not occur all at once. As stated in Section 2.2, only 7.5 acres would be actively mined at any one time, and a total of 27.6 acres would be disturbed during any one year. Concurrent reclamation would be ongoing for up to 60 acres (after the fourth year of mining). Removal of approximately 117 acres of vegetation in annual incremental amounts, combined with concurrent reclamation, would not create population level impacts for large or mobile species. Mule deer, pronghorn antelope, coyotes, jackrabbits, and other similar species would not be displaced from their home range or territory by the Proposed Action, but may avoid the areas being mined during daylight hours when the sites are active. Migratory birds would experience a reduction in available habitat, but the amount of habitat removed in any one year and the linear nature of the habitat removal is not likely to eliminate any nesting territories, or very few if any at all. Vegetation removal prior to the nesting season would further reduce the impacts to migratory birds.

Smaller, less mobile species, such as reptiles and rodents, or species with small territories or home ranges, such as least chipmunk or mountain cottontail rabbit, would be displaced from the active mining area and are likely to be lost from the local population through predation or stress from being displaced.

The concurrent reclamation of the sites after each block has been mined would limit the overall impact to wildlife species as forage species suitable for wildlife would be included in the seed mix. No nesting sites for raptors are known to occur within the areas proposed for mining. Indirect impacts to raptors may occur through the potential reduction in prey populations, although as stated above, the prey species are not anticipated to suffer population level losses.

4.1.11 Special Status Species

No special status species or suitable habitats were observed on the site during the biological baseline survey (SRK 2004). On the lower elevation of the project area there is marginal desert saltbrush habitat for the pygmy rabbit; however the rocky and gravelly nature of the soil would not make this habitat very suitable for the species. Due to the paucity of willows in the area the likelihood of occurrence of Nevada viceroy is remote. The lack of bat roosting habitat and the lack of water in the general area reduce the potential for occurrence of bats, and therefore, disturbance of bats is not likely to occur as a result of the implementation of the Proposed Action. Habitat and evidence of ferruginous hawks was lacking in the project area. No evidence of burrowing owls was observed during the baseline biological survey (SRK 2004). The site has some potential for sage grouse as fall-winter habitat, and a historic lek (not currently active) is located at T29N, R47E, Section 15, approximately one mile from the southern end of the claim block in Section 10. An active lek occurs in Section 27, over two miles from the proposed mine site. No sage grouse sign was observed on the site of the proposed mining during the baseline survey.

4.1.12 Cultural Resources

Based upon the Class III cultural resource survey (Vierra et al. 2004), only lithic and chip fragments in the mine were observed. None of cultural resources observed were determined to be eligible for inclusion on the National Register of Historic Places. Therefore, impacts to cultural resources would not result from the implementation of the Proposed Action.

4.1.13 Native American Religious Resources

No known areas of religious importance or traditional use were identified in either the cultural resource survey or through contact with the local tribal groups. Due to the lack of identified religious values or traditional use areas and the type of mining proposed (dry placer) no impacts are anticipated to Native American Religious Resources. However, during the project activities, if any unknown cultural properties, items, or artifacts (stone tools, projectile points, etc.) are encountered, it must be stressed to those involved in the proposed project activities that such items are not to be collected. Cultural and archaeological resources are protected under the Archaeological Resources Protection Act (16 U.S.C 470ii) and the Federal Land Management Policy Act (43 U.S.C. 1701). Also, though the possibility of disturbing Native American gravesites within the project area is low, inadvertent discovery procedures must be noted. Under the Native American Graves Protection and Repatriation Act, section (3)(d)(1), it states that the discovering individual must notify the land manager in writing of such a discovery. If the discovery occurs in connection with an authorized use, the activity, which caused the discovery, is to cease and the materials are to be protected until the land manager can respond to the situation.

4.1.14 Visual Resources

The proposed mining disturbance would result in short-term visual contrast affecting the elements of line and color. The temporary stockpiling of overburden on the slopes above the drainages and removal of vegetation would create a linear feature and contrasting color on the landscape. Due to the elevated position of the general area to be mined and the distance of at least two miles from the main road (over two miles), this contrast is not anticipated to focus the

attention of the casual observer. The increased use of the haul road may also increase the visibility of this linear element. The mill site has the most potential for increased visual contrasts due to its closeness to the main highway; however, the area is currently being used as a "boneyard" for old equipment and any clean up of the area would improve the vista.

These impacts to visual resources would be temporary until the end of mining and until the vegetation is sufficiently established to blend with the adjacent undisturbed vegetation. The impacts would be consistent with the Visual Resource Management objectives for the area. Removal of the mill site facilities and revegetation of the site would similarly reduce the visual impacts following reclamation.

4.1.15 Recreation

The introduction of active mining would reduce the opportunity for dispersed recreation in the area for the life of the mine. However, the mine site is not located within any unique habitat, or plant community, or recreational site within the general vicinity. The mining area activity and mill site activity would be limited to a short-term, temporary reduction of recreation opportunities for hunters, OHV users, hikers, and other dispersed recreationists. The mining activity may also temporarily interfere with recreational pursuits due to the noise disturbance. The mining disturbance would diminish the solitude, naturalness, and unconfined recreation opportunity.

The area adjacent to the mining activity would remain open for recreation and the alternate routes of access would remain available to the public.

4.2 WET PROCESSING AT THE MINE SITE ALTERNATIVE

The mine site wet processing alternative would utilize wet screen processing at the mine versus the mill site at Highway 306. This alternative would eliminate the need for use of the post-1981 road for haulage, but this road would be used for access to the mine site. Mine site milling would require the development of an on-site water source that currently does not exist. Alternatively, water would need to be hauled to the mine site, which would require the use of the haul road or other access road for a water truck.

4.2.1 Land Use and Access

Under the scenario of wet milling at the mine site, the eight acres of private land near the highway would not be used and similar acreage would be required for the milling in Black Rock Canyon area. The total acreage of disturbance would be the same as for the Proposed Action, except for the 6.6 acres of haul road disturbance (upgrading) that would not be needed, however haul road development from the mining areas to the mill site would be required. It is estimated that the alternative haul road would account for approximately eight acres of disturbance Access to the mill site would be via the post-1981 road.

4.2.2 Air Quality

The impacts to air quality would be less than for the Proposed Action because the wet processing would be essentially dust free. The haulage of water from the existing wells to the mine site

would generate fugitive dust, but the number of trips would be less than required to haul the gold-bearing ore from the mine to the mill site. Therefore, the overall fugitive dust emissions would be less.

4.2.3 Mineral Resources

Impacts to mineral resources under this Alternative would be the same as for the Proposed Action.

4.2.4 Water Resources

Surface flows from snowmelt and meteoric events occur up gradient in the canyon, but these flows become subsurface flows near the mouth of Black Rock Canyon. Therefore, there are no anticipated impacts to surface waters from this Alternative.

The operation of the mill site near the mining areas would necessitate developing a water well to provide the process water and water for dust suppression, or would require hauling water from the existing water well near State Route 306 to the mining area. Depth to water is estimated at between 200 and 250 feet below ground surface. The quality of this water (i.e., natural background levels of constituents) would need to be determined because sediments that would be washed with this water would be used in reclamation. Any attenuation of constituents by the sediments could lead to elevated levels of these constituents in the growth medium.

4.2.5 Soils

The eight acres associated with the mill site would represent additional impacts to soils. The topsoil would be salvaged and stockpiled for later use in reclamation, with impacts similar to the impacts described for the Proposed Action.

4.2.6 Vegetation

The alternative location of the mill site would result in eight more acres of sagebrush habitat and eight less acres of shadscale habitat being disturbed. The alternative haul road disturbance would also include sagebrush habitat. The impacts to vegetation would be similar to the impacts described for the Proposed Action.

4.2.7 Wetlands/Riparian

Due to the lack of wetlands or riparian vegetation within the areas proposed for disturbance, there would be no impacts to wetlands or riparian zones.

4.2.8 Non-Native, Invasive Species

The impacts from this Alternative with respect to non-native, invasive species would be similar to the impacts described for the Proposed Action.

4.2.9 Range

The impacts to range resources under this Alternative would be similar to those described for the Proposed Action. An additional AUM related to the additional acreage of disturbance would occur under this Alternative.

4.2.10 Wildlife

Impacts to wildlife from this alternative would be similar to the Proposed Action except the acreage of disturbance to sagebrush habitats would be greater due to the alternative mill site location and mine site haul road disturbance. Acreage of shadscale habitat disturbance would be less than for the Proposed Action.

4.2.11 Special Status Species

This Alternative would have potential for greater impacts to sage-grouse due to the increased level of activity in the foothills area which includes the sagebrush habitat. In addition to the mining activity, the mill site would also be operated in this area under this Alternative with greater acreage of sagebrush removal. This additional activity may reduce the use of adjacent non-disturbed habitat by sage-grouse. Impacts to other special status species would be the same as for the Proposed Action.

4.2.12 Cultural Resources

Impacts to cultural resources under this Alternative would be the same as for the Proposed Action.

4.2.13 Native American Religious Resources

No known areas of religious importance or traditional use were identified in either the cultural resource survey or through contact with the local tribal groups. Due to the lack of identified religious values or traditional use areas and the type of mining proposed (dry placer) no impacts are anticipated to Native American Religious Resources. However, during the project activities, if any unknown cultural properties, items, or artifacts (stone tools, projectile points, etc.) are encountered, it must be stressed to those involved in the proposed project activities that such items are not to be collected. Cultural and archaeological resources are protected under the Archaeological Resources Protection Act (16 U.S.C 470ii) and the Federal Land Management Policy Act (43 U.S.C. 1701). Also, though the possibility of disturbing Native American gravesites within the project area is low, inadvertent discovery procedures must be noted. Under the Native American Graves Protection and Repatriation Act, section (3)(d)(1), it states that the discovering individual must notify the land manager in writing of such a discovery. If the discovery occurs in connection with an authorized use, the activity, which caused the discovery, is to cease and the materials are to be protected until the land manager can respond to the situation.

4.2.14 Visual Resources

Impacts to visual resources would be similar to those impacts described for the Proposed Action. The alternative location of the mill site would reduce the ability of the casual observer to see the operation due to the distance from Highway 306 (approximately three miles). In addition, the linear element created by improving the post-1981 road to accommodate haul traffic would not occur under this Alternative. The existing topography would block the view of some of the mill site facilities if located in Section 10 under this Alternative.

4.2.15 Recreation

Impacts to recreation would be similar to the impacts described for the Proposed Action.

4.3 NO ACTION ALTERNATIVE

Temporary impacts to land use and access, air quality, soils, vegetation, non-native, invasive species, wildlife, special status species, visual resources, and recreation would not occur under the No Action Alternative. Disturbance from existing abandoned mines and the post-1981 haul road would not be reclaimed. The mineral resource would not be developed.

5.0 CUMULATIVE IMPACT ASSESSMENT

This section analyzes the potential cumulative impacts from past, present, and reasonably foreseeable future projects combined with the Proposed Action within the cumulative assessment areas specific to the resources for which cumulative impacts may be anticipated. A cumulative impact has been identified as "the impact, which results from the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (BLM 1990).

The most recent cumulative impact assessment that includes the Black Rock Canyon Dry Placer Mine and Mill area was the Horse Canyon/Cortez Unified Exploration Project Amendment EA (BLM 2004, pages 34-43). This analysis is herein incorporated by reference and is summarized below.

As related to the Proposed Action, cumulative impacts are possible for air quality, soils, vegetation, invasive, non-native species, wildlife, visual resources, and recreation. The cumulative assessment area for the majority of resources encompasses approximately 361,400 acres and generally includes the area of Crescent Valley, the northern portions of Grass Valley, the southern portion of the Cortez Mountain Range, and portions of the Shoshone and Toiyabe Mountain Ranges, as shown in **Figure 5-1**. The Black Rock Canyon area is included in this cumulative effects area. The reasonably foreseeable time frame for the cumulative assessment analysis assumes 10 years the life of the Proposed Action.

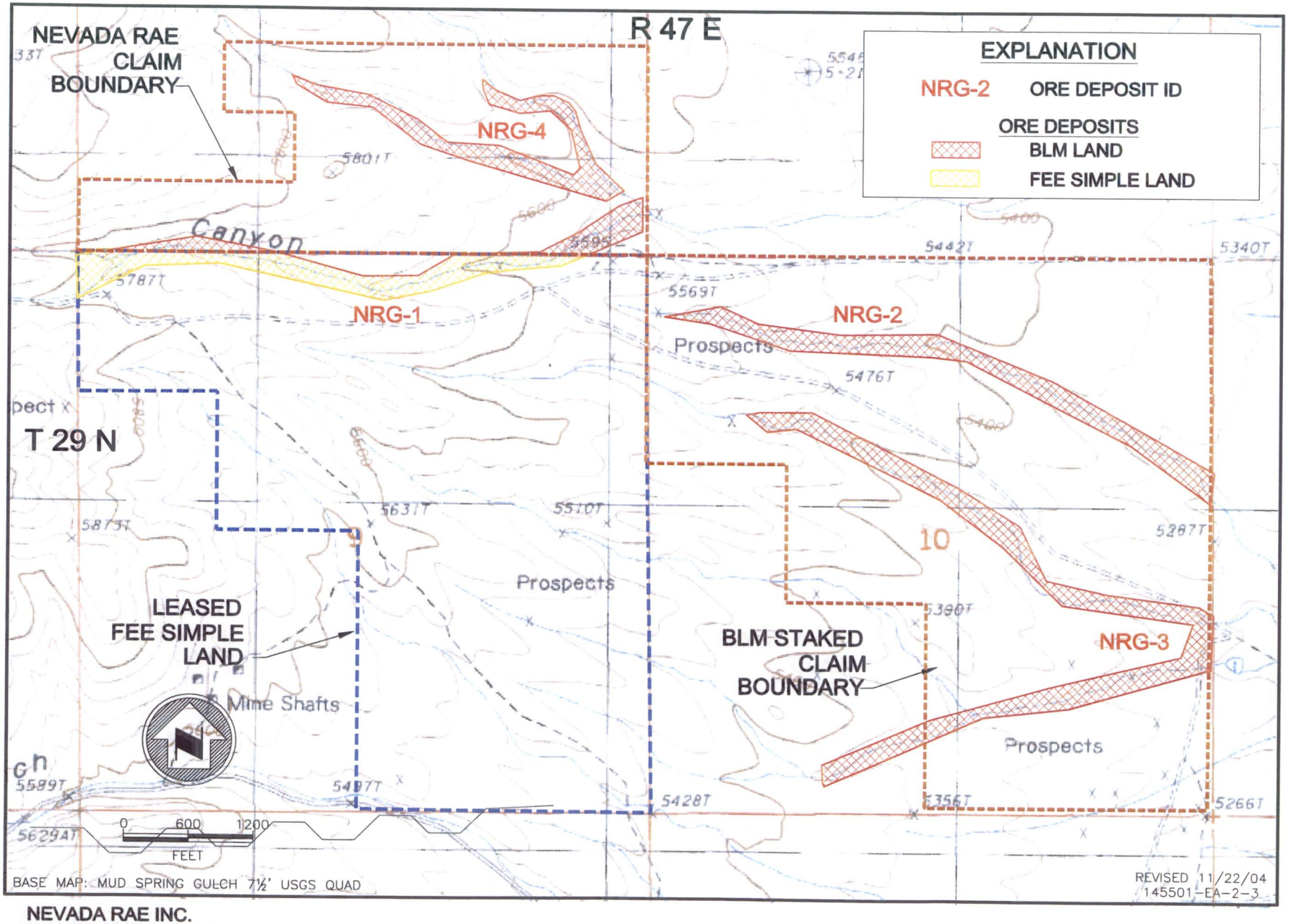
The following sections contain a description of interrelated activities that have occurred and may reasonably occur in the foreseeable future within the cumulative assessment areas, and an analysis of the impacts of these interrelated activities within a regional context.

5.1 DESCRIPTION OF INTERRELATED PROJECTS

The primary activities, that contribute to cumulative impacts would include past, present, proposed, and reasonably foreseeable future recreation, livestock grazing, fires and fire rehabilitation, and other land use including mineral exploration and development activities combined with the proposed Black Rock Canyon Dry Placer and Mill Project. Past, present, proposed, and reasonably foreseeable future projects are described in this section and in **Table 5-1**, with respect to the cumulative assessment area.

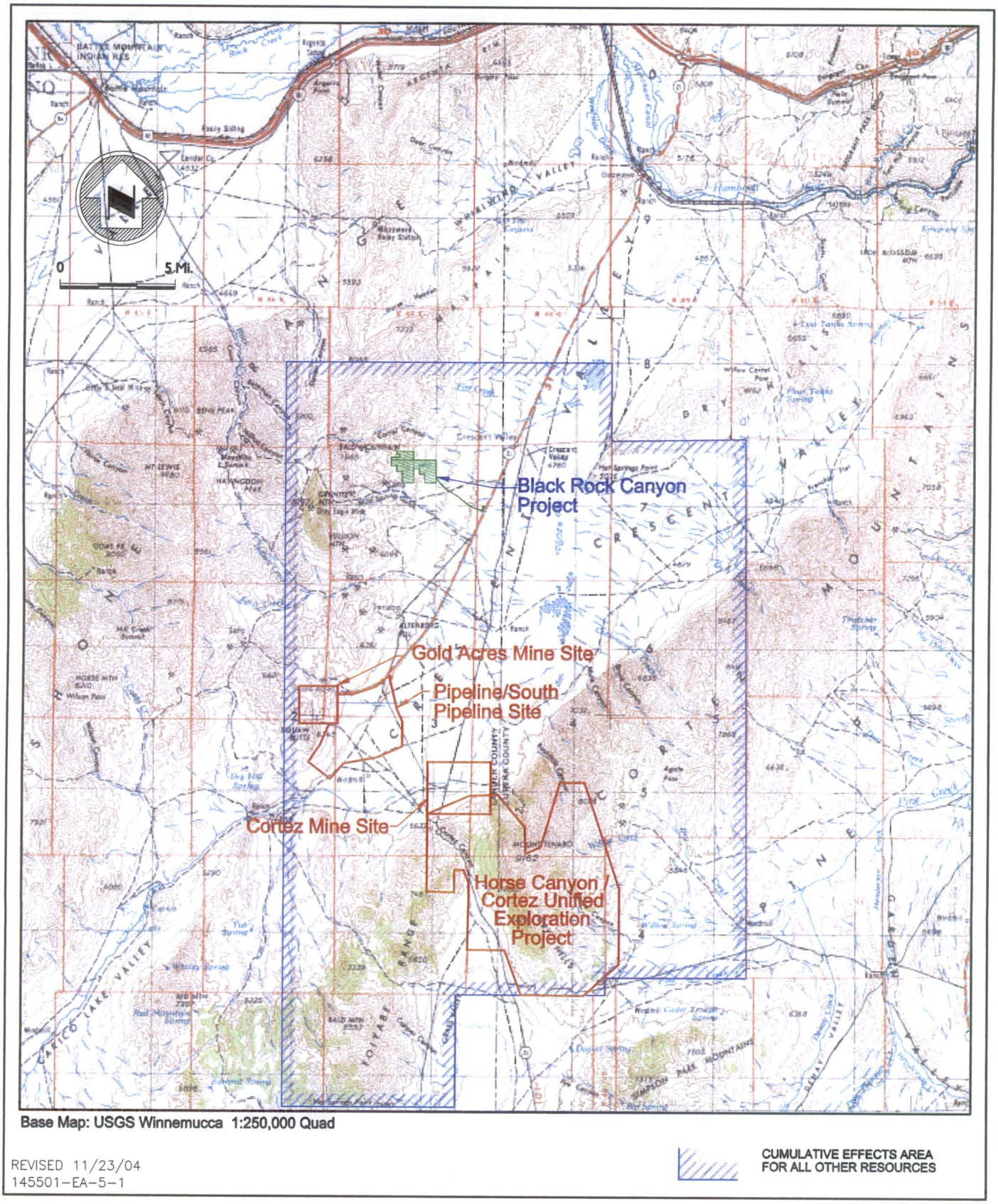
5.2 PAST AND PRESENT ACTIVITIES

Historic and present mining and exploration activities within the cumulative assessment area total an estimated 13,624 acres on both private and public land. Historic and present-day mining activities include exploration activities occurring in the Crescent Valley region, and mining at The Uhalde Placer Mine, Cortez, Gold Acres, Pipeline, and South Pipeline areas and throughout the valley.



NEVADA RAE INC.
BLACK ROCK CANYON PROJECT
ENVIRONMENTAL ASSESSMENT

FIGURE 2-2
MINING RESERVES



Base Map: USGS Winnemucca 1:250,000 Quad

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CUMULATIVE EFFECTS AREA FOR ALL OTHER RESOURCES

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FIGURE 5-1
CUMULATIVE EFFECTS STUDY AREA

Table 5- 1: Past, Present, Proposed, and Foreseeable Future Surface Disturbance for the Cumulative Impact Area

Activity	Surface Disturbance (acres)
Past, Present, and Proposed Disturbance	
Mining-Related	
West Pine Valley Exploration	150
West Side Exploration	150
Horse Canyon/Cortez Unified Exploration Project Area (includes 200-acre Proposed Action and existing mining disturbance)	1,056
Proposed Pediment/Cortez Hills Mine Project	Approx. 1,870
Cortez Silver Mining District	93
Cortez – Outside Project Area	866
Pipeline/South Pipeline	7,688
Gold Acres	881
Robertson	285
Mill Canyon	18
Hot Springs Point	5
Mud Springs	10
Uhalde Placer	100
Fox Mine	4
Toiyabe Mine	218
Fire Creek Mine	230
Pipeline/South Pipeline Pit Expansion	0
Subtotal	13,624
Non-Mining Related	
Highway (assumes 100-foot right-of-way)	230
County Roads (assumes 25-foot right-of-way)	175
Crescent Valley Town Site	642
Crescent Valley Airport	15
Power lines	63
Agriculture Development	6,700
Crescent Valley Wildland/Urban Interface	850
Subtotal	8,675
Reasonably Foreseeable Disturbance	
Black Rock Canyon Dry Placer Mine	118*
Exploration Notices/Mining Plans of Operations (estimate)	1,000
Subtotal	1,000
TOTAL CUMULATIVE SURFACE DISTURBANCE	**23,299**

Source: BLM 2001, Cortez – various PoOs.
* This acreage is duplicative of the Uhalde Placer project acreage and only occurs in the total once.

Non-mining disturbance within the cumulative assessment area totals an estimated 8,670 acres and includes paved highways, county paved and dirt roads, Crescent Valley town site, airport and water well, power lines, agricultural development, and a wildland/urban interface project. In addition to this disturbance, there are numerous prospect pits, two-track dirt roads, scattered private dwellings and abandoned irrigation ditches that are not included in this estimate.

According to maps recently produced by the BLM, a total of approximately 145,000 acres has been burned within the cumulative assessment area as a result of recent wildfires, representing approximately 40 percent of the total cumulative assessment area. The BLM BMFO has conducted rehabilitation of areas impacted by the 1999 fires, including aerial seeding and chaining of the burned areas. A general discussion regarding wildfires occurring within the cumulative effects study area has been included in this analysis; however, the burned acreage is not included in the calculation for cumulative surface disturbance.

These burned areas represent large areas of vegetation removal and the vegetation requires time to become well-established, especially in areas of severe burning. Invasion of invasive, non-native weeds and unfavorable species could be especially problematic in some burned areas. The effects of fire could influence the assessment of impacts to certain wildlife species. Until rehabilitated, fire is likely to adversely affect wildlife habitat, reducing the amount of suitable habitat. Wildlife may become more dependent upon remaining suitable habitats in the cumulative effects area.

5.3 PROPOSED ACTIVITIES

Disturbance for the Proposed Action encompasses 118 acres, most of which was included in the Uhalde Placer Mine project. A detailed description of the Proposed Action is presented in Chapter 2.0 of this EA.

5.4 REASONABLY FORESEEABLE ACTIVITIES

Expansion at the Cortez Gold Mines properties is the primary reasonably foreseeable activities within the area. Cortez Gold Mines submitted a Plan of Operations for the Pipeline/South Pipeline Pit expansion in January 2001. The Plan of Operations included deepening and expanding the existing South Pipeline open pit with no additional surface disturbance, only an extension in time. On January 8, 2001, Cortez Gold Mines submitted a Plan of Operations to the BLM proposing the development of the Pediment Deposit. Exploration has identified targets in the immediate vicinity of the proposed Pediment Project referred to as Cortez Hills. Development of this area is a reasonably foreseeable activity. Additional exploration work is needed to define these resources, and the Pediment Project PoO would be modified to reflect the findings of this work.

Acquisition of the Uhalde private lands as part of the Black Rock Canyon Dry Placer Mine and Mill Project is also a reasonably foreseeable future action. This would expand the area of potential mining.

Current livestock grazing and ranching activities would continue to occur in the reasonably foreseeable future within the cumulative assessment area, subject to allotment management strategies of the BLM field offices.

5.5 CUMULATIVE IMPACTS

The following sections discuss the cumulative impacts of the Proposed Action when combined with past, present, and foreseeable future activities (i.e., exploration and mineral development, livestock grazing and ranching, administrative land uses, etc.) within the respective cumulative assessment areas.

Activities outlined under the Proposed Action are consistent with the cumulative analysis and reasonably foreseeable future actions in the *Horse Canyon/Cortez Unified Exploration Project Amendment Environmental Assessment* (BLM 2004). Therefore, this EA incorporates by reference the cumulative impact assessment for each resource (BLM 2004).

Approximately 100 acres have been identified as past, present, and proposed disturbance associated with the Uhalde Placer mine which is now the Black Rock Canyon Dry Placer Mine and Mill. Total cumulative surface disturbance for past, present, and reasonably foreseeable future actions was estimated at 23,299 acres, or approximately 6.4 percent of the cumulative effects area.

The Proposed Action represents 0.5 percent of the cumulative surface disturbance, and for land-based resources (e.g., soils, vegetation, wildlife habitat, non-native invasive species, etc.) the incremental impact from the Proposed Action to cumulative impacts is likely to be approximately 0.5 percent. For resources that are project specific, such as ground water or cultural resources, the contribution from project to project may vary independent of disturbance acreage. The proposed Black Rock Canyon Dry Placer Mine and Mill project contributes to the cumulative impacts for air quality, soils, vegetation, non-native invasive species, wildlife, visual resources, and recreation. The impacts to these resources would remain for the life of the mine and for several years following the end of active mining until vegetation is sufficiently established to minimize soil erosion and to provide forage for wildlife and livestock, restore recreational opportunities, minimize non-native invasive species establishment, and provide for habitat special status species, as well as reduce the contrasts in line, form, color, and texture of the visual resources. The Proposed Action does not contribute to cumulative impacts for land use and access, water resources, special status species, cultural resources, and Native American religious concerns.

5.5.1 Air Quality

Factors contributing to air quality impacts include livestock grazing, mining and exploration, wildfires, and other surface disturbing activities that contribute to fugitive dust emissions. Wildfires and livestock grazing impact the greatest acreage within the cumulative effects area (40 percent and 94 percent, respectively) and may contribute the greatest amount of particulate matter with respect to air quality. Although the mining and exploration activities occur on approximately four percent of the cumulative effects area, the NDEP Surface Disturbance Permit requires the mining operators to conduct road maintenance activities to reduce fugitive dust emissions and to use other dust control methods where emissions are likely to occur.

5.5.2 Soils

Approximately 23,400 acres of soils would be disturbed within the cumulative assessment area, representing six percent of the total cumulative assessment area. This disturbance consists of past, present, proposed, and reasonably foreseeable operations consisting of old mining operations, exploration activities, mine development, and non-mining related actions. Since the average salvageable soil depth varies with each soil type throughout the cumulative assessment area, and the quantity of salvaged soil for each type of activity also varies considerably, the cumulative impact to soil resources is an approximation. Assuming an average salvageable soil depth of 12 inches, approximately 38 million cubic yards of growth media may be disturbed by all activities within the cumulative assessment area. The 118 acres associated with the Proposed Action would be 0.5 percent of the total cumulative impact to soils.

Cumulative impacts to soil resources would not occur all at once, nor would they occur at one location, but would occur sporadically throughout the foreseeable future time period (ten years) and would be dispersed over the cumulative assessment area. For current and proposed mining and mineral exploration activity, available growth medium would be relocated from the immediate area of activities and returned immediately after operations cease, thus minimizing cumulative impacts to this resource. Non-mining activities, specifically disturbance associated with roadways, airports, and the development of structures in the town of Crescent Valley would likely remain as permanent disturbance.

Livestock grazing has had and would continue to have, direct and indirect impacts on soils, although grazing impacts are not quantified as part of this analysis. Range improvement and wildfire suppression activities would also be expected to cause soil disturbance. Administrative land use activities represent approximately 35.8 percent of total cumulative impacts to soils.

5.5.3 Vegetation

The combined past, present, proposed, and reasonably foreseeable surface disturbance within the cumulative assessment area has or would impact vegetation resources. A total of approximately 23,400 acres of vegetation could be disturbed within the cumulative assessment area over the next ten years, representing approximately six percent of the entire cumulative effects study area.

Reclamation of disturbed areas would reduce the long-term impact to vegetation. The use of the proposed reclamation seed mixes and the spread of desirable plant species from surrounding undisturbed lands through natural colonization would enhance the revegetation of disturbed areas. Some areas may remain barren until vegetation becomes established, thus temporarily impacting wildlife and livestock forage. Approximately 8,670 acres of non-mining related activities (i.e., roadways, airport, and development near the town of Crescent Valley) would remain developed and unreclaimed (non-vegetated). The 118 acres associated with the Proposed Action would represent 0.5 percent of the total cumulative impact to vegetation.

5.5.4 Non-native, Invasive Species

The combined past, present, proposed, and reasonably foreseeable surface disturbance within the cumulative assessment area has the potential to create conditions favorable for the invasion of invasive, non-native weeds, and other undesirable plants. The use of suitable reclamation seed

mixes with only certified and tested seed, combined with implementation of prompt and appropriate revegetation techniques would reduce the potential for invasive, non-native weed invasion. The Proposed Action would result in 118 acres of surface disturbance. This represents 0.5 percent of total surface disturbance within the cumulative effects study area having the potential to create conditions favorable for the invasion of invasive, non-native weeds. The BMPs (NDEP 1994) of actively treating invasive, non-native weeds upon discovery would also prevent these weed species from spreading and dominating the site. NRG would ensure mining activities follow proper BLM protocol regarding invasive, non-native weeds (i.e., cleaning the undercarriage of vehicles prior to entering exploration areas to remove potentially attached vegetative parts and seeds from invasive, non-native weeds).

5.5.5 Wildlife

Past, present, proposed, and reasonably foreseeable activities would result in approximately 23,400 acres of disturbance in wildlife habitat over a ten-year period within the cumulative assessment area. Although the cumulatively impacted acreage would be approximately six percent of the cumulative assessment area, some of the impacts would occur within key deer use areas. However, direct and indirect impacts to wildlife would be short-term for the duration of each mining and exploration project. In addition, the impact would be dispersed throughout the cumulative assessment area since all mining operations and exploration activities would not occur in the same location or during the same time period. The cumulative impact to wildlife would occur as long as mining or exploration was active in any immediate area. Wildlife may avoid immediate areas of active mining and exploration. It is likely that wildlife mortality may result to smaller less mobile species as mining equipment clears land and travels on exploration roads. Such mortality is likely to affect common and abundant species such as ground squirrels, rabbits, snakes, and lizards that frequently cross roadways and/or are less mobile. However, the few individuals that may be killed each year will not affect populations of these species over the project area. Once all mining activities cease, wildlife species typical of the area are likely to re-inhabit the reclaimed areas as the vegetation returns to pre-mining composition and structure. The 118 acres associated with the Proposed Action would represent 0.5 percent of the total cumulative impact to wildlife.

5.5.6 Visual Resources

The past, present, proposed, and reasonably foreseeable surface disturbance within the cumulative assessment area has the potential to result in short- and long-term visual impacts, representing approximately 23,400 acres (six percent of the cumulative assessment area) principally affecting the elements of line and color.

Mine development would remain the major factor impacting visual resources. The mine facilities (e.g., heap leach pads, waste rock storage facilities, mill facilities, and pits) generally would have longer-term impacts (i.e., 10 or more years, depending on the life of the facility). These facilities would add contrast to line, color, form, and texture, depending on the location of the facility and the reclamation activities.

Horizontal and shallow diagonal lines from the drill roads, exploration trails, highways, and power lines would create moderate line contrasts with the characteristic landscape. Moderate color contrasts would result from the vegetation removal associated with these linear activities.

The presence of drill rigs would also result in a minor contrast in color in relation to the natural environment. Form and texture contrasts would be weak to none. Interim reclamation and revegetation efforts of the exploration roads and drill sites may result in short-term visual impacts until vegetation becomes established.

The construction of non-mining related highways, county roads, airports, and structures in the town of Crescent Valley and agricultural development have resulted in permanent, non-reclaimable disturbance equating to approximately 8,675 acres (37 percent of all disturbances within the cumulative effects study area). The 118 acres associated with the Proposed Action would represent 0.5 percent of the total visual disturbance within the cumulative effects study area.

5.5.7 Recreation

Exploration an/or mining activities at the Black Rock Dry Placer Mine, Gold Acres, Cortez, Pipeline, South Pipeline, and Horse Canyon/Cortez Unified Exploration Project would generate new disturbance. These disturbances, along with reasonably foreseeable future mining operations, would continue to decrease the amount of land and access available for dispersed recreation (such as hunting) within the area.

The closure of individual facilities and entire operations, with associated reclamation, would open some of the acreage to recreational uses. Open pit areas would remain as a long-term cumulative impact with respect to recreation. The Proposed Action represents 0.5 percent of the total disturbance within the cumulative effects study area that would result in decreased recreational accessibility to public lands. This impact would last for a minimum of ten years during active mining.

6.0 CONSULTATION AND COORDINATION

6.1 LIST OF PREPARERS

U.S. Bureau of Land Management, Battle Mountain Field Office

Gail Givens	Assistant Field Manager, Nonrenewable Resources
Jon Sherve	Hydrologist, 3809 Lead
Pam Jarnecke	Environmental Coordinator
Joe Ratliff	Natural Resource Specialist
Janice George	Archaeologist
Chuck Lahr	Realty Specialist
Gerald Dixon	Native American Coordinator
Richard Kurtz	Natural Resource Specialist
Mike Stamm	Wildlife Biologist
Duane Crimmins	Wildlife Biologist
Jerrie Bertola	Rangeland Management Specialist
Rob Perrin	Recreation Specialist

Nevada Department of Wildlife

Rory Lamp	Mining Wildlife Biologist

Chemrox Technologies, SRK Consulting, R.K. Vierra & Associates

Sean Muller	Geologist
Gary Back	Ecologist
Robert K. Vierra	Archaeologist

6.2 PERSONS AND AGENCIES CONSULTED

Natural Resource Conservation Service
U.S. Geological Survey (maps and aerial photos)
Nevada Department of Environmental Quality
Nevada State Historic Preservation Office (SHPO)
Nevada Natural Heritage Program

6.3 NATIVE AMERICAN CONSULTATION

Native American consultation was initiated on September 28, 2004 via letters sent to Tribal Chairpeople and their respective Cultural/Environmental staff. Communication with participating tribal entities and organizations remained active after their receipt of the September 28, 2004 letter and continued through November 19, 2004. The Battle Mountain BLM Field Office sent certified letters to the various tribal entities requesting that they provide any unknown information to BLM to be included in the decision making process. Any new and significant information, not currently existing in BLM cultural resource files, would be considered when identifying any alternatives, recommendations, or mitigation measures. No formal comments were received.

6.4 NATIVE AMERICAN CONTACTS

Yomba Shoshone Tribe – Jerril Jones, Chair; Bonnie Bobb, EPA Director
South Fork Band, Te-Moak Tribe of the Western Shoshone – Ronnie Woods, Chair; Dallas Smales & Jake Tybo, Environmental Coordinators
Elko Band, Te-Moak Tribe of the Western Shoshone – Glory Two Eagles, Chair; Alfreda Jake, Environmental Coordinator
Duckwater Shoshone Tribe – Jerry Millett, Chair; Annette George, Environmental Assistant Director
Shoshone-Paiute Tribes of Duck Valley – Terry Gibson, Chair; Ted Howard, Cultural Preservation Specialist
Battle Mountain Band, Te-Moak Tribe of the Western Shoshone – Joseph Holley, Chair; Bernice Lalo, Environmental Coordinator
Wells Band, Te-Moak Tribe of the Western Shoshone – Kristi Begay, Chair; Aurora Aboite, Environmental Coordinator
Te-Moak Tribe of the Western Shoshone – Hugh Stevens, Chair; Brandon Reynolds, Vice Chair
Ely Shoshone Tribe – Diana Buckner, Chair; Cindy Marques, Environmental Coordinator
Western Shoshone Defense Project – Carrie Dann

7.0 REFERENCES

Bureau of Land Management (BLM). 1986. *Shoshone-Eureka Resource Area Record of Decision.* U.S. Department of the Interior, Bureau of Land Management, Battle Mountain Field Office. March 10, 1986.

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Battle Mountain Field Office
50 Bastian Road
Battle Mountain, Nevada 89820
http://www.nv.blm.gov

TAKE PRIDE IN AMERICA

In Reply Refer To:
NV063-EA04-77
1790
NVN078104
3809

AUG 8 2005

Dear Reader:

Enclosed is a copy of the Decision Record, Finding of No Significant Impact and the Plan of Operations Approval for the Black Rock Canyon Dry Placer Mine and Mill Project. The decision is based on the Agency Preferred Alternative, which was analyzed in the Environmental Assessment. The decision authorizes the use of an existing mill facility and a new mine site. The Project will occur in phases resulting in a total surface disturbance of 117.6 acres. The agency preferred alternative is the environmentally preferable alternative incorporating mitigation and monitoring measures.

If you wish to appeal this decision, the appeal procedures are outlined beginning on page 9 of the enclosed document.

Please contact Angelica Ordaz at (775) 635-4060 or Jon Sherve at (775) 635-4164 should you have any questions.

Sincerely,

Roberta L. McGonagle
Acting Assistant Field Manager

Enclosures:
1. Decision Record, Finding of No Significant Impact and Plan Approval (10-pp)
2. Form 1842-1 (2-pp)

DECISION RECORD
FINDING OF NO SIGNIFICANT IMPACT
AND
PLAN OF OPERATIONS APPROVAL

BLACK ROCK CANYON DRY PLACER MINE AND MILL

Environmental Assessment No. NV063-EA04-77
Plan of Operations No. NVN-078104

PREPARED BY
Bureau of Land Management
Battle Mountain Field Office
Battle Mountain, Nevada

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed Environmental Assessment (EA) NV-063-EA04-77, dated November 2004. After consideration of the environmental effects of the Bureau of Land Management's (BLM's) preferred alternative (Proposed Action) described in the EA and supporting documentation, I have determined that the Proposed Action with the project design specifications identified in the EA is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as described in 40 CFR 1508.27. Therefore, preparation of an Environmental Impact Statement is not required.

I have determined the Proposed Action is in conformance with the approved Shoshone-Eureka Resource Management Plan and is consistent with the plans and policies of neighboring local, county, state, tribal and federal agencies and governments. This finding and conclusion is based on my consideration of the Council on Environmental Quality's (CEQ's) criteria for significance (40 CFR 1508.27), both with regard to the context and the intensity of impacts described in the EA.

Context

Nevada Rae Gold (NRG) proposes to mine approximately 8.14 million cubic yards of gravel in Black Rock Canyon, Lander County, Nevada. The disturbance would occur on both private and public lands administered by the Bureau of Land Management, Battle Mountain Field Office. The proposed mine would be located within portions of Township 29 North, Range 47 East (T. 29 N., R. 47 E.), section 4, 9, and 10, Mount Diablo Base and Meridian and the mill site is located in T. 29 N., R. 48 E., NW¼ of Section 19. Total surface disturbance associated with the Project would be 117.6 acres.

Intensity

1) *Impacts that may be both beneficial and adverse.*

The EA considered both beneficial and adverse impacts of the Proposed Action. Impacts of the Proposed Action include the following: fugitive dust from mining and haulage; the removal of the gold from unconsolidated alluvium changes the nature of the gravels; increasing the potential for wind and water erosion of soils due to the removal of the vegetation and salvaging of the topsoil; the existing, potential for establishment, control and eradication, and long-term management of noxious and invasive plants on disturbed sites and the use of native species in reclamation and the need to duplicate the existing vegetative communities; the removal of 117.6 acres of vegetation within the Argenta grazing allotment; the removal of vegetation during the avian breeding season resulting in destruction of bird nests and/or their contents; and the removal of Sage-grouse habitat in the Project Area. These impacts, which are described in detail in Chapter 3 of the EA, would be minimized by the design features of the Proposed Action or mitigated by measures described in Chapter 3.

Impacts of the No Action alternative would be no impacts to land use and access, air quality, soils, vegetation, non-native, invasive species, wildlife, special status species, visual resources, and recreation. Disturbance from existing abandoned mines and the post-1981 haul road would not be reclaimed. The mineral resources would not be developed.

None of the environmental impacts disclosed above and discussed in detail in Chapter 3 of the EA and associated appendices are considered significant.

2) *The degree to which the proposed action affects public health or safety.*

With proper implementation of the Proposed Action, there will not be any affect to public health or safety. The public will not be allowed on site without proper safety training. All visitors will be required to be escorted by site personnel to ensure that there is radio communication and proper understanding of operational hazards. Fencing will be installed around the mill facility with front gate access controlled by the front office. Security services will be employed during timeframes when operation staffs are not on site. During shutdowns of greater than 3 days, snow fencing will be erected around the excavated pit to protect the public, livestock and wildlife from access to areas with potential hazards. Signs will be erected that indicate the potential hazards and deter access to restricted areas. Implementation components of the Proposed Action will not result in potentially substantial or adverse impacts to public health and safety.

3) *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

Chapter 3 describes in detail the geographic area of the project. There are no perennial water sources in the Project Area. There are no cultural sites eligible for listing in the National Register of Historic Places. No known areas of religious importance or traditional use were identified in either the cultural resource survey or through contact with the local tribal groups.

There are no park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas within or in the vicinity of the mine.

4) *The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

The Proposed Action is not expected to be controversial. There were no comment letters stating opposition for the project.

5) *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*

There are no known effects of the Proposed Action identified in the EA that are considered uncertain or involve unique or unknown risks. Chapter 4 discusses in detail the environmental consequences of the proposed action.

6) *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

The Black Rock Canyon Dry Placer Mine and Mill will not establish a precedent for future actions with significant effects or represent a decision about future consideration. Any future actions would be analyzed on their own merit and implemented on that analysis.

7) *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.*

The reasonably foreseeable future actions have been considered in the cumulative impacts analysis within the Chapter 5 of the EA. In addition, for any actions that might be proposed in the future, further environmental analysis, including assessment of cumulative impacts, would be required prior to surface disturbing activities.

8) *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss or destruction of significant scientific, cultural, or historical resources.*

A Class III cultural survey has been completed for the Project Area. None of the cultural resources observed were determined to be eligible for inclusion on the National Register of Historic Places, therefore, adverse impacts to cultural resources will not occur. This is discussed in Chapter 4 of the EA.

9) *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA), as amended, of 1973.*

No special status species or suitable habitats were observed in the project area during the biological baseline survey.

10) *Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.*

The Proposed Action will not violate or threaten to violate any federal, state, or local laws or requirement imposed for the protection of the environment.

DECISION

As a result of the analysis presented in the Environmental Assessment (EA), it is my decision to approve the Proposed Action and Plan of Operations (NVN-078104). This decision is consistent with the Shoshone-Eureka Resource Management Plan (RMP) (1986) and is supported by the Surface Management Regulations (43 CFR § 3809), the Federal Land Policy and Management Act of 1976, and the Mining Law of 1872, as amended. Selection of the Proposed Action, coupled with environmental protection measures, will allow NRG to undertake a legitimate use of the public lands in an environmentally sound manner without causing unnecessary or undue degradation. All resource values have been evaluated for cumulative impacts. It has been determined that cumulative impacts would be negligible for all resources.

This decision is to be implemented upon issuing to NRG this document approving the Black Rock Canyon Dry Placer Mine and Mill Plan of Operations and is contingent upon NRG securing all required federal, state, and local permits.

ENVIRONMENTAL PROTECTION MEASURES/STANDARD OPERATING PROCEDURES

Throughout this project, NRG will initiate best management practices (BMPs) to prevent unnecessary or undue degradation to the environment.

Air Quality

NRG, in compliance with the Nevada Division of Environmental Protection (NDEP) Surface Disturbance Permit, will protect air quality during the proposed project by undertaking road maintenance activities to reduce fugitive dust emissions. Application of water and/or a dust suppression chemical, such as magnesium chloride, by water trucks will be done, as needed, in areas along roads and areas of mining disturbance. Two 1000-gallon water trucks will be dedicated for this purpose. Water will be procured from the WM-1 well permitted on BLM land next to the wash plant.

Cultural and Paleontological Resources

NRG's employees and contractors will be informed of the potential for cultural resources and will be required to avoid disturbing, altering, or destroying any scientifically important remains or any historical or archaeological site, structure, building or object on federal land. If activities uncover human remains, NRG will cease all earth disturbing activities within 30 meters of the discovery, and call the BLM Field Manager and county law enforcement as soon as the discovery is made.

Additionally, NRG will, within 24 hours, notify proper authorities and the BLM if subsurface cultural resources are discovered during construction, operation, or reclamation activities. NRG will immediately cease earth-disturbing activities within 100 meters of the discovery, until resources can be examined by the proper authorities and/or a BLM-approved archeologist. All applicable state and federal regulations related to such an event will be adhered to by NRG, and earth-disturbing activities will only resume once cleared by the BLM or other appropriate authority.

In the event that significant fossiliferous deposit(s), specifically vertebrate fossil deposits, are located during construction, operation, or reclamation activities, the BLM Field Manager will be notified, and measures will be taken to avoid the fossil(s).

Water (Surface/Ground)

Access across seeps and springs will be avoided where possible although none currently exist in the Project Area. Culverts, rolling dips, armoring, and/or straw bales will be utilized to protect drainages. Roadway erosion controls, including waterbars and ditches, will be installed to protect existing water quality. The potential exists to intercept some ground water. The water will be allowed to infiltrate into the gravels down-gradient of the active mining block, within the same drainage.

NRG must apply for a change of use and provide notice of construction of a dam for the settling ponds to the Division of Water Resources. NRG must provide BLM with proof of compliance with these state permits prior to using the water or constructing the ponds.

Wildlife

Land clearing and surface disturbance will be timed to prevent destruction of active bird nests or young of birds during the avian breeding season (March through July, annually) to comply with the Migratory Bird Treaty Act (MBTA). If surface disturbing activities are unavoidable, NRG will have a qualified biologist survey areas proposed for immediate disturbance for the presence of active nests. Copies of the surveys will be provided to the BLM and NDOW. If active nests are located, or if other evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), the area will be avoided to prevent destruction or disturbance of nests until the birds are no longer present.

The mill site will be enclosed by an 8-foot cyclone fence with three access gates to preclude terrestrial animals. No chemicals will be used in the processing; therefore, no mortalities to birds or small animals capable of negotiating the fence are anticipated.

Native plant species will be included in the reclamation seed mix to provide wildlife habitat.

Special Status Species

NRG will not conduct mining activities within two miles of any known sage grouse leks/strutting ground during the period of March 1 through May 15.

Raptor nests identified in the field as being active will be avoided.

In the event that special status plant or wildlife species are identified in the Project Area, NRG will avoid the habitat where possible, and work with a BLM specialist to evaluate and mitigate possible impacts by devising an alternative operating plan.

Vegetation

There will be a temporary loss of vegetative cover from the mining and milling process. Since this will be a concurrent reclamation project, no more than approximately 60 acres will be without vegetative cover for more than one field season. Backfilling, soil placement and reseeding will occur on an annual basis. Therefore, renewed vegetative cover should start in early spring of the year following reclamation activity and reach successful revegetation standards in three years. In the event the revegetation does not meet the standards, the revegetation procedures will be reapplied and the financial guarantee will be adjusted accordingly. An approved BLM seed mix will be used with recommendations from BLM Range Management Specialists when necessary. The mill site will be reclaimed at the end of the mine life.

Range

Livestock will be managed appropriately. This may include exclusionary measures such as fence installation (subject to BLM approval) on the areas under concurrent reclamation until the reclaimed areas are determined satisfactory by the authorized officer.

Fire Management

NRG will comply with all applicable federal and state fire laws and regulations, and shall take all reasonable measures to prevent and suppress fires in the area of operations. NRG and contractors are required to carry fire extinguishers, hand tools, and/or backpack-type water pumps in their vehicles to suppress small fires.

Solid and Hazardous Waste

The Project will not generate or dispose of any hazardous waste. If petroleum products are spilled, NRG will contain the spill and the appropriate agencies will be notified in accordance with the applicable federal and state regulations. Diesel, oil, and lubricants will be transported for use at the project in portable containers. Storage of fuels will occur at the mill site with secondary containment equal to 110% of the largest tank or tanks in series.

Invasive Non-Native Species

NRG will be responsible for controlling all noxious weeds within the Project boundary until the reclamation activities have been determined to be successful and released by the BLM's authorized officer.

BLM will provide a State of Nevada invasive, non-native weed list and a list of chemicals approved for use on public land. NRG will obtain approval from the appropriate BLM officer for any and all herbicide applications, including types and quantities.

Visual Resources

Unused equipment and any garbage will be removed properly from the site. Upon completion of processing, the mill will be dismantled and removed from the site. The site will be reclaimed and revegetated after surface disturbance.

Transportation

Ore will be processed on site and will not be trucked via Highway 306. The only highway use would be by approximately 8-12 employees commuting to and from the mine property and an additional 5 people occasionally traveling to the site.

The mill site and access are graveled and will be maintained and re-graveled, as necessary, by NRG.

Quality Assurance Plan

NRG will provide site inspection of all mining operations and road construction on a daily basis. This includes inspections of the operation as well as phone or radio contact with the mining crews to determine if any problems are encountered. Operational sites will be examined to ensure that cultural sites, wetlands, springs, seeps, and drainages are avoided. In addition, any stipulations, such as seasonal restrictions, will be strictly adhered to by NRG and enforced by the BLM. NRG will provide an annual activity report describing the past years construction, mining and reclamation activities to the BLM and Nevada Division of Environmental Protection Bureau of Mining Regulation and Reclamation. The report will be submitted by March 1st of each year.

Rationale

The Proposed Action coupled with the Standard Operating Procedures/Environmental Protection Measures found in the EA and accompanying Decision Record will prevent unnecessary or undue degradation of public land. Resource review and analyses have been coordinated with other federal and state agencies. Environmental protection measures incorporated into the Proposed Action are outlined in the Decision Record. Resources determined to be potentially impacted were analyzed in the EA specific to the Proposed Action. Among those resources are land use and access, air quality, mineral resources, water resources, soils, vegetation, wetlands/riparian, non-native invasive species, range, wildlife, special status species, cultural resources, Native American Religious Resources, visual resources, and recreation. Impacts to these resources are not significant based on the definition of significance in 40 CFR § 1508.27 and on the analysis in the EA.

Plan Approval

NRG's Plan of Operations, filed pursuant to 43 CFR § 3809, for the Black Rock Canyon Dry Placer Mine and Mill was received in this office on February 20, 2004. The final revision was received on January 20, 2005. The Plan was assigned BLM case file number NVN-078104.

The Plan of Operations is authorized by this decision. An Environmental Assessment, EA number NV063-EA04-77, documents that impacts resulting from implementation of the plan have been adequately analyzed and disclosed with the appropriate mitigation and monitoring. Implementation of this decision with mitigation and monitoring measures will not cause unnecessary or undue degradation of the public lands.

The surface occupancy proposed in association with this project meets the conditions specified in the applicable regulations (43 CFR § 3715). BLM is in concurrence with the proposed occupancy of the subject lands. NRG must continue to comply with subparts 3715.2, 3715.2-1, and 3715.5 of the regulations.

NRG utilizes the practice of concurrent reclamation therefore the financial guarantee reflects the anticipated disturbance in three-year reclamation cost estimate phases. A financial guarantee sufficient to cover reclamation activities for surface disturbance described in the Plan, projected to occur during the first three year phase of mining operations has been estimated to be $354,000 (rounded-up to the nearest hundred). The reclamation cost estimate has been coordinated with NDEP, Bureau of Mining Regulation and Reclamation. NDEP concurs with the amount. The reclamation cost estimate for each subsequent phase will require BLM and NDEP approval (or the approval of the appropriate regulatory agencies consistent with any interagency understandings). The reclamation cost estimate for each phase must be approved by BLM and NDEP and be adjudicated and obligated by BLM (or the appropriate regulatory agency). BLM and NDEP will conduct an annual review of the reclamation cost estimate to ensure an adequate financial guarantee.

Approval of the Plan of Operations is granted based on the adoption of current standard operating procedures and compliance with mitigation detailed in the EA. NRG may only perform those actions that have been described in the Plan. NRG must also comply with all Federal, State, and local regulations including obtaining all necessary permits, in accordance with regulatory timeframes, from the NDEP before proceeding with this Project. Copies of permits will be provided to the Battle Mountain Field Office.

Pursuant to 43 CFR § 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR § 10.2). Further, pursuant to 43 CFR § 10.4(c) and (d), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

All operators must comply with applicable Federal and State laws dealing with the storage and disposal of chemicals, petroleum, petroleum products, Resource Conservation Recovery Act (RCRA) Subtitle C hazardous wastes, and RCRA Subtitle D solid wastes. Under no

circumstances can chemicals, petroleum, petroleum products, or RCRA Subtitle C hazardous wastes be disposed in solid waste disposal areas on the mine or mill site without the written approval of BLM and NDEP.

The operator must identify what waste streams will be produced, whether the waste streams are hazardous, and the disposal method and location. If hazardous wastes are generated, the operator must obtain an Environmental Protection Agency generator identification number from NDEP and must manifest all shipments off-site. Copies of the manifests must be available for the Authorized Officer's inspection.

Any modification to the approved Plan must be coordinated with, and approved by, this office.

Approval of the Plan in no way implies the validity of the mining claims or the economic viability of the operation.

43 CFR § 3809 APPEAL STATEMENT

If you do not agree and are adversely affected by this decision, in accordance with 43 CFR § 3809.804, you may have the BLM State Director in Nevada review this decision. If you request a State Director review, the request must be received in the BLM Nevada State Office, 1340 Financial Blvd. 89502, P.O. Box 12000, Reno, Nevada 89520-0006, no later than 30 calendar days after you receive this decision. A copy of the request must also be sent to this office. The request must be in accordance with the provisions provided in 43 CFR § 3809.805. If a State Director review is requested, this decision will remain in effect while the State Director review is pending, unless a stay is granted by the State Director.

If the Nevada State Director does not make a decision on whether to accept your request for review of this decision within 21 days of receipt of the request, you should consider the request declined and you may appeal this decision to the Interior Board of Land Appeals (IBLA). You then have 30 days in which to file your notice of appeal with the IBLA (see procedures below).

If you wish to bypass the State Director review, this decision may be appealed directly to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR § 4 and the enclosed Form 1842-1. If an appeal is taken, your notice of appeal must be filed in this office (Battle Mountain Field Office, 50 Bastian Road, Battle Mountain, Nevada 89820) within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulations 43 CFR § 4.21 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of this notice of appeal and petition for a stay must also be submitted to each party named in the decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR § 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of immediate and irreparable harm if the stay is not granted, and
4. Whether the public interest favors granting the stay.

Decision Record, Finding of No Significant Impact and Plan of Operations Approval:

R L McGonagle

Roberta L. McGonagle
Acting Assistant Field Manager, Nonrenewable Resources
Battle Mountain Field Office

8/8/05
Date

Form 1842-1
(February 1985)
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INFORMATION ON TAKING APPEALS TO THE BOARD OF LAND APPEALS

DO NOT APPEAL UNLESS
1. This decision is adverse to you,
AND
2. You believe it is incorrect

IF YOU APPEAL, THE FOLLOWING PROCEDURES MUST BE FOLLOWED

1. NOTICE OF APPEAL . . . . . Within 30 days file a *Notice of Appeal* in the office which issued this decision (see 43 CFR Secs. 4.411 and 4.413). You may state your reasons for appealing, if you desire.

2. WHERE TO FILE NOTICE OF APPEAL . . . . U.S. Department of the Interior
Bureau of Land Management
Battle Mountain Field Office
50 Bastian Road
Battle Mountain, NV 89820

SOLICITOR ALSO COPY TO . . . . . U.S. Department of the Interior
Office of the Field Solicitor
6201 Federal Building
125 S. State Street
Salt Lake City, UT 84138-1180

3. STATEMENT OF REASON . . Within 30 days after filing the *Notice of Appeal*, file a complete statement of the reasons why you are appealing. This must be filed with the United States Department of the Interior, Office of the Secretary, Board of Land Appeals, 4015 Wilson Blvd., Arlington, Virginia 22203 (see 43 CFR 4.412 and 4.413). If you fully stated your reasons for appealing when filing the *Notice of Appeal*, no additional statement is necessary.

SOLICITOR ALSO COPY TO . . . . . U.S. Department of the Interior
Office of the Field Solicitor
6201 Federal Building
125 S. State Street
Salt Lake City, UT 84138-1180

4. ADVERSE PARTIES . . . . . Within 15 days after each document is filed, each adverse party named in the decision and the Regional Solicitor or Field Solicitor having jurisdiction over the State in which the appeal arose must be served with a copy of: (a) the *Notice of Appeal*, (b) the Statement of Reasons, and (c) any other documents files (see 43 CFR Sec. 4.413). Service will be made upon the Associate Solicitor, Division of Energy and Resources, Washington, D.C. 20240, instead of the Field or Regional Solicitor when appeals are taken from decisions of the Director (WO-100).

5. PROOF OF SERVICE . . . . . Within 15 days after any document is served on an adverse party, file proof of that service with the United States Department of the Interior, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, Virginia 22203. This may consist of a certified or registered mail "Return Receipt Card" signed by the adverse party (see 43 CFR Sec. 4.401 (c) (2)).

Unless these procedures are followed your appeal will be subject to dismissal (see 43 CFR Sec. 4.402). Be certain that all communications are identified by serial number of the case being appealed.

NOTE. *A document is not filed until it is actually received in the proper office (see 43 CFR Sec. 4.401 (a)).***SUBPART 1821.2--OFFICE HOURS; TIME AND PLACE FOR FILING**

Sec. 1821.2-1 *Office hours of State Offices.* (a) State Offices and the Washington Office of the Bureau of Land Management are open to the public for the filing of documents and inspection of records during the hours specified in this paragraph on Monday through Friday of each week, with the exception of those days where the office may be closed because of a national holiday or Presidential or other administrative order. The hours during which the State Office and the Washington Office are open to the public for the filing of documents and inspection of records are from 10 a.m. to 4 p.m., standard time or daylight savings time, whichever is in effect at the city in which each office is located.

Sec. 1821.2(d) Any documents required or permitted to be filed under the regulations of this * * * * * chapter, which is received in the State Office or the Washington Office, either in the mail or by personal delivery when the office is not open to the public shall be deemed to be filed as of the day and hour the office next opens to the public.

(e) Any document required by law, regulations, or decision to be filed within a stated period, the last day of which falls on a day the State Office or the Washington Office is officially closed, shall be deemed to be timely filed if it is received in the appropriate office on the next day the office is open to the public.