

ACTIVITY: 3809

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management

EA FACE SHEET

OFFICE: Winnemucca Field Office FY & REPORT #: _____
ACTION: The Sulphur Springs project proposes to mine gravels and soft bedrock in a two acre pit and feed material into a wash plant and develop gold concentrates for off-site refinement

NO. OF PAGES: 14
LOCATION: 50 miles west of Winnemucca, 2 miles southwest of Sulphur in T. 34 N., R. 28 E., Sections 4, 5, 8, 9, MDB&M
SERIAL NO: _____

<u>TEAM SIGNATURE</u>	<u>TITLE</u>	<u>RESOURCE VALUES</u>	
		<u>ASSIGNED</u>	<u>HOURS</u>
_____	Jeff Johnson - Planning & Environmental Coordinator		
_____	Scott Richey - Geology		
_____	Peggy McGuckian - Cultural Resources		
_____	Mike Zielinski - Soil Scientist		
_____	Clarence Covert - Wildlife		
_____	Barb Keleher - Recreation and Visual		
_____	Chuck Neill - Noxious Weeds		
_____	Ron Pearson - Range		
_____	Rod Herrick - Hazardous Materials		
_____	Nadine Paine - Wild Horses		

ENVIRONMENTAL
COORDINATOR: _____
(Signature) (Date)

COMPLIANCE
OFFICER: _____
(Title or Name)

DISTRICT MANAGER/ASSISTANT DISTRICT
MANAGER, NONRENEWABLE RESOURCES _____
(Signature)

(Date)

EXISTING OPERATION AND BACKGROUND

On June 15, 1993, the BLM received a notice for D. G. Hyde to do testing work and improve the existing access road to the H&L Claims. Amendments to this notice were received by the BLM

on October 9, 1996, September 7, 1999, and December 6, 2000, with Mark Loyd as operator. On September 19, 2001, the Nevada Division of Environmental Protection granted a Water Pollution Control Permit (NEV99105). In accordance with 43 CFR 3809.300(a), Mark Loyd (Black Gold Mining) submitted an extension request on January 8, 2003. Due to the time constraint stated in Instruction Memorandum 2003-42, the notice expired. Consequently a plan of operations was submitted on September 9, 2003, and the required additional information was received on October 27, 2003. A plan of operations is now required for this project by 43 CFR 3809.11(b) which states “that you must submit a plan of operations for any bulk sampling in which you will remove 1,000 tons or more of presumed ore for testing”.

As of the last inspection the project had already disturbed 4.5 acres and hosts an occupancy (approved under an existing EA), two water wells, pipe lines, water tanks, process facilities and a two acre pit.

I. PURPOSE AND NEED

Black Gold Mining has submitted a plan of operations to excavate a shallow pit and process the placer gravels through a gravity separation plant to extract free gold from the gravels.

Relationship to Land Use Plans

A. Ownership

The surface and mineral estates of the proposed plan of operations are in federal ownership, and are administered by the Bureau of Land Management.

There are no pre-1955 mining claims, or oil and gas leases occurring on the subject lands. There is also no geothermal activity or leases that occur in the area.

B. Land Use Planning

The action is in conformance with the Sonoma-Gerlach Resource Area Management Framework Plan (MFP) dated July 9, 1982. Although the action is not specifically addressed, objective M-1 states “provide to the public the opportunity to acquire minerals from public lands to meet market demands”.

II. PROPOSED ACTION

The proposed action is located 50 miles west of Winnemucca in T34N, R28E, Sections 4, 5, 8, and 9 MDB&M. Black Gold Mining proposes to mine placer gravels and process up to 36,500 tons a year of placer ore utilizing an existing wash plant and gravity concentration circuit. No chemicals would be used in the processing of ore. Total disturbance under the proposed action would be 4.5 acres. All of the proposed disturbance would occur in previously disturbed areas. No new disturbance would occur as a result of the proposed action and associated reclamation activities. The proposed operation is expected to be completed by May 31, 2008. The operator

would maintain a valid water pollution control permit from the Nevada Division of Environmental Protection and comply with all applicable guidelines in the permit.

Mining and processing

Ore would be ripped and stockpiled using a dozer or similar equipment and then loaded into the wash plant with a front end loader. A maximum of 1000 tons of gravel would be stockpiled at any one time for processing or as the waste rock depository. Blasting of the rock is not anticipated, but if it becomes necessary, the appropriate permits would be obtained before proceeding. The wash plant can be fed up to 50 yards/hour. The plant would use up to 800 gallons/minute of water in a closed circuit with a need for 10% makeup water. The water would come from the two wells and pipe lines already existing on the project. The ore is run across various screening and separation devices along conveyor systems to develop a heavy mineral concentrate. The final product would be free gold and heavy mineral concentrate. The heavy mineral concentrate would be transported off site to a refinery.

Washed gravels from the processing facility and subore gravels from the pit would be placed in one of three localities:

- 1) On the access roads as needed for road maintenance, up to a maximum of 6 inches deep.
- 2) Back in the pit.
- 3) On the edge of the process facility near the pit.

Environmental Protection Measures

Noxious Weeds

The undercarriage and wheels of large vehicles traveling into the Project Area would be power-washed at a commercial vehicle washing facility before entering the Project Area. The operator would contact the BLM if any noxious weeds are discovered resulting from mining activities, and would treat these noxious weeds to control their spread. Two years after the project is recontoured and reseeded the operator would inspect the site for noxious weeds and provide a report of the findings to the BLM. If any noxious weeds are present then the operator would initiate control measures.

Hazardous Materials

All hazardous material spills regardless of size would be cleaned up. Motorized equipment would be inspected daily by the operator for leaks or fluid loss and would be maintained to prevent leaks or fluid loss. If fluids are lost due to leaks during operations, the operator would shut down the leaking machine and would collect any contaminated soil in a 55 gallon barrel for transport offsite to a permitted facility for proper treatment and disposal. Used oil, antifreeze, batteries, tires and other recyclable materials resulting from equipment maintenance will be collected in closed containers or on pallets, as appropriate, and will be removed from the site on a regular, frequent basis for recycling. Under no circumstances will large quantities of these or

other used materials be allowed to accumulate at the site , nor will any of these materials be disposed on or in the land at the site.

Dust Control

The ore stockpiles would be sprayed with water prior to and during loading into the wash plant. Since the wash plant uses water to sort material, dust is not a hazard from the process facility.

Reclamation

Reclamation would consist of removal of the processing facilities, fences, gates, utilities, equipment, buildings and supplies. All underground lines would be capped and covered. All concrete footings, slabs, and foundations would be buried at least five feet deep, either in place or in the waste rock stockpile. All water wells would be abandoned by a licensed well driller according to the State of Nevada regulations or the water source transferred to an appropriate individual or agency who would accept full responsibility for the well(s). All stockpiles of rock would be contoured to at no steeper than a 3:1 (horizontal : vertical) slope or placed back in the pit in a stable configuration and revegetated. Reclamation would be focused on stabilization and protection of soil erosion through the use of recontouring, regrading, and revegetation activities where appropriate to meet the reclamation objectives as outlined in the U.S.D.I. Solid Minerals Reclamation Handbook #H-3042-1 (BLM, 1992), Surface Management of Mining Operations (NSO) Handbook H-3809-1 (BLM, 1989a), and re-vegetation success standards per BLM/NDEP “Guidelines for Successful Re-vegetation” (BLM, 1989b). A financial guarantee would have to be accepted for the reclamation estimate of the project before operations can begin.

Alternatives to the Proposal

Under the no-action alternative, the Plan of Operations would be rejected. The current notice-level work of 4.5 acres would have to be reclaimed (however there is no financial guarantee).

III. AFFECTED ENVIRONMENT

Critical Elements of the Human Environment

The following critical elements of the human environment are not present or would not be affected by the proposed action or alternatives.

Area of Critical Environmental Concern
Prime or Unique Farm Land
Floodplains
Environmental Justice
Paleontology
Wetlands/Riparian Zones
Wild and Scenic Rivers
Wilderness

Resources Present That May Be Affected

Hazardous Materials

Petroleum products would be used in the mining equipment. The hazardous materials present at the operations site consist of diesel fuel, gasoline, petroleum-based oil, and grease. The diesel fuel is stored in two 750 gallon above-ground fuel tanks. One tank is at the western-most water well and the other is at the processing facility. Small quantities of cleaning solvents, machine lubricants, and paint will also be used at the project.

Vegetation

Vegetation consists of primarily shadscale (*Atriplex confertifolia*), bud sagebrush (*Artemisia spinescens*), Bailey greasewood (*Sarcobatus baileyi*), black greasewood (*Sarcobatus vermiculatus*), and minor amounts of Indian ricegrass (*Achnatherum hymenoides*), bottlebrush squirreltail (*Elymus elymoides*) and Prince's plume (*Stanleya pinnata*).

Geology

Gravels and local altered bedrock have been exposed in the current shallow pit. Further operations would likely process most of the gravels and probably some of the altered oxidized bedrock.

Noxious Weeds

The BLM utilizes several laws that authorize control of noxious weeds on public land under their administrative jurisdiction, e.g., The Federal Insecticide, Fungicide and Rodenticide Act (1972), Federal Noxious Weed Act (1974), FLPMA (1976), Public Rangelands Improvement Act (1978).

Nevada Revised Statutes, Chapter 555.05 defines “noxious weeds” and mandates land owners and land management agencies to include control of noxious weeds on lands under their jurisdiction.

Nevada has listed 42 non-native invasive plant species that require control. A complete list of these weeds is attached. Of these 42 species, 13 are commonly found on the WFO and include the following:

Common Name	Scientific Name
Poison Hemlock	<i>Conium maculatum</i>
Russian Knapweed	<i>Acroptilon repens</i>
Spotted Knapweed	<i>Centaria maculosa</i>

Leafy Spurge	<i>Euphorbia esula</i>
Medusahead	<i>Taeniatherum caput-medusae</i>
Tall White Top	<i>Lepidium latifolium</i>
Puncturevine	<i>Tribulus terrestris</i>
Salt Cedar (Tamarisk)	<i>Tamarix ramosissima</i>
Canada Thistle	<i>Cirsium arvense</i>
Musk Thistle	<i>Cardus nutans</i>
Scotch Thistle	<i>Onopordum acanthium</i>
Yellow Star Thistle	<i>Centaria solstitialis</i>
Hoary Cress	<i>Cardaria draba</i>

When introduced to an area, these non-native, invasive plant species can quickly dominate the landscape if management action is not initiated to control the infestations' expansion. Noxious weeds may proliferate, forming monocultures, which can crowd out other plants that provide biodiversity. Weeds are spread from infested areas by people, equipment, animals and wind.

In 1997 the WFO initiated an invasive weed survey. To date there have been 5 inventories: 1997, 2000, 2001, 2002 and 2003. The data collected can be found in the Field Office GIS database. The data has primarily been collected along existing road systems.

Noxious weed control projects on BLM administered land are coordinated with other federal State, Tribal, County agencies and other organizations in a collaborative effort to maximize use of limited resources. Partnerships have been developed with the USFS, NRCS, Shoshone-Piaute Tribes, Humboldt, Pershing and Washoe Counties, NDF, Humboldt County Weed Task Force, Paradise Valley Weed District, and 2 recently established Cooperative Weed Management Areas (CWMAs): Gerlach and Pershing County CWMAs.

Soils

The dominate soil consists of very deep, excessively drained soils that formed in very gravelly, sandy alluvium derived from mixed rock sources. A secondary soil consists of very deep, well drained soils that formed in loamy alluvium and lacustrine materials. Water erosion hazard is slight and wind erosion hazard is moderate. Little to no topsoil exists, these soil forms from recent deposits. Excavated soils material would be stockpiled on the sides of the pit to be used as cover during the reclamation process.

Range Management

The site is within the Blue Wing / Seven Troughs Allotment. The grazing permittees and class of livestock are:

C-Punch – cattle
John Espil – sheep
Wes Cook – sheep
Buster Dufurrena – sheep

Few cows use this area due to long distances from water. The site is outside the use areas and trailing routes for the sheep operators.

Wildlife and Fish

Common species representative of the area include: antelope (*Antilocapra americana*), coyote (*Canis latrans*), badger (*Taxidea taxus*), blacktail jackrabbit (*Lepus californicus*), rodents, reptiles, and numerous non-game species. No surface water, meadows, and riparian areas exist; therefore there are no fishery or aquatic flora and fauna in the project area.

Migratory Birds

A list of the migratory birds affected by Executive Order #13186 dated 01/11/01, is contained in 43 CFR 10.13. References to “species of concern” pertain to those species listed in the periodic report, “Migratory Nongame Birds of Management Concerns in the United States”, priority migratory bird species as documented by established plans (such as Bird Conservation Regions and the North American Bird Conservation Initiative or Partners in Flight physiographic areas), and those species listed in 50 CFR 17.11. A complete migratory bird inventory has not been completed for this project area. Migratory birds have been identified within the project area. Although, there is no special attraction to the area except for spring run-off in the nearby drainage.

Threatened/Endangered/Candidate/Sensitive Species

Special status species for the allotment include those species listed or proposed for listing under the Endangered Species, species designated by the Fish and Wildlife Service for listing, species contained in the Bureau of Land Management’s Nevada Sensitive Species List, and the species list by the Nevada Natural Heritage Program. The Fish and Wildlife Service does not list any threatened and/or endangered species for the project area. Table 1 lists the BLM sensitive species list of fauna which may occur or are known to occur in the project area.

Table 1. BLM Sensitive Species List

Mammals

Spotted bat	<i>Euderma maculatum</i>
Small-footed myotis	<i>Myotis ciliolabrum</i>
Long-eared myotis	<i>Myotis evotis</i>
Fringed myotis	<i>Myotis thysanodes</i>
Long-legged myotis	<i>Myotis volans</i>

Pale Townsend's big-eared bat *Plecotus townsendii pallescens*
Pacific Townsend's big-eared bat *Plecotus townsendii townsendii*

Birds

Western burrowing owl *Athene cunicularia hypugea*
Golden eagle *Aquila chrysaetos*
Northern harrier *Circus cyaneus*
Prairie falcon *Falco mexicanus*

Of these species one or more bat species, western burrowing owl, golden eagle, northern harrier, and the prairie falcon are likely to occur in the project area and are susceptible to impacts associated with mining activities.

Bats – No known bat habitat inventories have been completed for the project area. Healthy bat populations are associated with various healthy vegetation communities which have insects that bats eat.

Western burrowing owl - No known colonies have been observed in the allotment, however Western burrowing owl habitat may be present in the lower elevations. The major habitat needs of Western burrowing owls are prairie-like terrain with low herbaceous vegetation, deep soil usually sandy for burrows, the occurrence of mammals that excavate burrows, and a food supply. They are adapted to open, usually dry country with short vegetation. Because the range and habitats vary so greatly, the availability of prey also varies for this owl. In general, the greatest biomass of food items taken consists of small mammals and invertebrates. Birds may be taken to a lesser degree. Reptiles and amphibians may also be an important prey. Of the invertebrate prey taken, the owl seems to especially prefer larger species such as grasshoppers, scorpions, large beetles, moths, and crickets. A vast array of small mammals also taken includes mice, rats, voles, gophers, and even bats.

Golden eagle – The golden eagle is a yearlong resident. The golden eagle eats mainly rabbits and large rodents and occasionally a young antelope. It nests in rimrock and may be found diurnally from the mountain tops to the valley floors in the Pine Forest Allotment.

Northern harrier – The northern harrier commonly called a marsh hawk may be viewed anytime during the daylight hours. This hawk breeds and may winter in the Pine Forest Allotment. It usually nests on the ground or in marsh areas. This hawk hunts for rodents and small birds in open and sagebrush country.

Prairie falcon – The prairie falcon is a year-round resident. It nests in the rimrock and may be viewed flying rapidly in open terrain where it eats birds and small mammals.

According to the Nevada Natural Heritage Program Data Base (January 2003), there are no listed, proposed, and sensitive plant or animal species within the project area.

Visual Resources

The site is located in a Visual Resource Management Class IV area. The objective of Class IV management is to provide for management activities that require major modification of the existing landscape character. The level of change to the characteristic landscape can be high. This means any contrast attracts attention and is a dominant feature of the landscape in terms of scale but it should repeat the form, line, color and texture of the characteristic landscape. The project occurs at 4450 feet in elevation at the transition from relatively flat terrain to the northwest and hilly to mountainous areas of the Kamma Mountains to the southeast. The hills are mostly tan to brown showing the color of the rock and soil while the flat terrain reflects the colors of the vegetation mostly as green-gray to gray-brown.

Recreation

Recreation use is low. Most types consist of dispersed use – hunting, rock hounding, driving for pleasure. The proposed action is along one of the main accesses to the Black Rock Desert High Rock Lake Emigrant Trails National Conservation Area (NCA). The Project Area is approximately 2 miles from the NCA boundary.

Access

Access would be by Jungo Road, two miles southwest of Sulphur, Nevada, then by improved pre-regulation road one mile southeast to the range front (see project map). The occupancy site near Jungo Road is one mile from the process site. This access would likely be traveled the most by the work force.

Air Resources

Air quality in the region is typical of rural areas of the Great Basin. During the summer months dust storms and rangeland wildfires may negatively affect air quality. The proposed action is located within the Black Rock Hydrographic Region. The Black Rock Region is a “nonattainment” area for particulates.

Cultural Resources

No cultural resource inventory was undertaken because the entirety of the proposed action would take place in previously disturbed areas. No cultural resource sites have been recorded in or within one mile of the project area. The Applegate-Lassen Trail, which is listed on the National Register of Historic Places, is located approximately three miles from the project area. However, the project would not be visible from this historic trail.

Wild Horses

The proposed action would occur in the far western portion of the Kamma Mountains Herd Management Area (HMA). There have been wild horses present in this HMA since before the

Wild Free-Roaming Horse and Burro Act (PL 92-195) was passed on December 15, 1971. The appropriate management level (AML) for the Kamma Mountains HMA is 77 horses with an AML range of 58 to 77 horses. The current estimated population, based on a 2001 census and adjusted by a 15% annual reproductive increase, is 102 wild horses.

Native American Values

There are no known Native American sacred sites and/or traditional cultural properties in the vicinity.

IV. ENVIRONMENTAL CONSEQUENCES

No Action

Under no action, 4.5 acres currently disturbed would have to be reclaimed. There would be some fugitive dust during reclamation activities. New vegetation would be seeded.

Proposed Action

Hazardous Materials

Minor amounts of hazardous petroleum products could be introduced to the environment if equipment were to malfunction or need repair at the site. All spills regardless of size would be cleaned up. Impacts from hazardous materials would occur from spills or leaks of diesel fuel and lubricants from equipment, or from fueling and maintenance operations. These impacts would be minimal based on the small amount of fuel, lubricants, and other fluids used by the equipment in the Proposed Action; containment of these fuels in the equipment; and the spill response actions that would be implemented if a spill did occur (see Environmental Protection Measures page 3).

Vegetation

Disturbed areas would be seeded with a mixture of native species. The proposed seed mixture is described in the following table.

Species	Pure Live Seed (PLS) LBS./Acre	PLS/sq. ft.
Fourwing Saltbush	3.00	3.0
Shadscale	3.00	3.0
Greasewood (Black)	2.00	16.0
Nevada Mormon Tea	1.00	0.5
Bottlebrush	1.00	4.5

squirrel		
Totals	10.00	27.0

Impacts to vegetation would be minimal.

Geology

Some of the processed gravels and bedrock would go back in the pit and the remainder would be placed in a waste stockpile that would be recontoured for stability and revegetated. The pit slopes would also be revegetated where possible. No other important geological resources would be impacted.

Noxious Weeds

The possibility exists that the heavy equipment that would be used for the proposed action would spread noxious weed seeds along the proposed access route. The spread of seed would occur by attaching to the tires/undercarriages on the equipment. The proposed action should not promote the spread of noxious weeds based on implementation of the environmental protection measures, page 3.

Soils

The disturbance area is approximately 5 acres, activities are sporadic. Impacts to soils would be minimal.

Range Management

Since there is not going to be any additional surface disturbance, no new effects on range resources are anticipated.

Wildlife and Fish

The noise and human presence resulting from mining activities may cause temporary displacement of rodents, reptiles, birds, and large ungulates (mule deer) that frequent the project area. This would be limited in nature due to the size and location of the proposed project.

Migratory Birds

There is some chance that the working equipment noise and activity would displace visiting and or nesting migratory birds near the process area and pit. However, this proposed mining action is projected to have negligible impacts to migratory birds.

Threatened/Endangered/Candidate/Sensitive Species

There would be no impacts to Threatened, Endangered, and/or Candidate Species since none of these species are known to occur within the proposed project area according to the Fish and Wildlife Service, the BLM, and the Nevada Natural Heritage Program. All of the BLM listed sensitive species may occur near the project area however, with the proposed project site already being disturbed, not using any chemicals, and due to the relatively small proposed mining site, negligible impacts to any sensitive species are expected.

Wild Horses

Since there would be no additional surface disturbance in the proposed action this should have no, to minimal, impacts on wild horses. Although horses are present in the HMA they rarely use the area near the proposed action.

Visual Resources

Visual impacts during mining would be minimal. The process and pit area are at the base of the range front and not on a hillside or other prominent location. Visual resources would be improved after reclamation because recontouring and revegetation would cause the previous disturbance to be less noticeable.

Access

The pit is directly adjacent to the processing area. The access would only be used to transport people to the work site and occasional equipment.

Air Resources

The operator would get an air pollution control permit from the State of Nevada if required and comply with all applicable guidelines in the permit. The proposed action would have minor impacts from fugitive dust, in part, due to the implementation of the environmental protection measures, page 4.

Cultural Resources

No impacts to cultural resources are anticipated because the entirety of the proposed action would take place in previously disturbed areas. Since the project would not be visible from the Applegate Lassen Trail there would be no impact to the National Register values of this trail.

Native American Values

It is anticipated that Native American Religious Concerns would not be impacted by the proposal.

VI. CUMULATIVE IMPACT ANALYSIS

Cumulative impacts are those effects on the resources of an area or region caused by the combination of past, existing, and reasonably foreseeable future actions which may be individually minor but together significant. The cumulative impact assessment area includes the area from the Western Pacific Railroad on the north to Rosebud Canyon and the Rabbithole site on the south to Rabbithole Creek on the west and the Hycroft gold mine on the east.

No Action

Past, present, and reasonably foreseeable actions that occur in the assessment area would be the same as the proposed action explained below except that the proposed action have been reclaimed and not allowed to potentially expand beyond 4.5 acres. The impact from the reclamation of the site would be minor.

Proposed Action

Past, present, and reasonably foreseeable actions that occur in the assessment area relate to the mineral industry, and limited grazing. If this project were approved, further amendments could include additional exploration and mining. Two possible future scenarios were also submitted by the operator which could include up to 50 acres of disturbance associated with a larger mining operation and several shallow pits. This possible impact would be moderate.

There are two expired mining notices and one authorized plan within this area. The Hycroft Mine is currently closed and reclamation is currently ensuing. If gold prices were high enough it is possible that the mine could resume operations. Potential ore is largely at depth below existing pits. Resumption of mining activities might involve a pit layback that could disturb additional surface beyond what is already permitted, although there is no current data to analyze this with. Environmental impacts would be mitigated during the permitting process by state and federal agencies. The impacts due to surface disturbance associated with past, present, and reasonably foreseeable future could be moderate. However, for operations to resume at Hycroft the action would have to analyzed separately. Also all mining and exploration related disturbances would have to be reclaimed and revegetated. There would be minimal to low impacts within the assessment area to resources from livestock grazing. The incremental impacts resulting from the Proposed Action would be negligible. If mining resumed at the Hycroft Mine, incremental impacts would be moderate.

VII. CONSULTATION AND COORDINATION

The following is a list of individuals responsible for preparing the EA:

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Peggy McGuckian – Cultural Resources

Mike Zielinski – Soils and Vegetation

Clarence Covert – Wildlife; Threatened, Endangered, and Sensitive Species

Chuck Neill – Noxious Weeds

Ron Pearson – Range

Nadine Paine – Wild Horses

Rod Herrick – Hazardous Materials

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References

Owling.com 2001 owling.com/Burrowing_nh.htm