

**U.S. Department of the Interior  
Bureau of Land Management  
GRAND JUNCTION Field Office  
2815 H ROAD  
GRAND JUNCTION, CO 81506**

## **ENVIRONMENTAL ASSESSMENT**

NUMBER: CO-130-2008-060-EA

PROJECT NAME: October Mine Site Reclamation Project

LOCATION and LEGAL DESCRIPTION: The project site is located approximately 4 miles south of Gateway, Colorado in Mesa County, in Section 4, Township 50 North, Range 19 West, New Mexico Principal Meridian.

APPLICANT: Nuvemco, LLC (Nuvemco)

PURPOSE AND NEED FOR THE ACTION: This EA has been prepared by the BLM in response to a request from Nuvemco to remove a low grade uranium/vanadium ore stockpile from the October Mine Site and reclaim the disturbed surface area. The stockpile is currently non-vegetated and there is a need to remove it in order to re-contour and re-vegetate the site.

### DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION: The proposed action is to remove an abandoned 0.35 acre rock stockpile containing approximately 7,500 tons of low grade uranium and vanadium ore (see attachment 1 for photos of stockpile). The rock stockpile sits on a bedrock bench with little to no topsoil and can be accessed with an existing road. Once the low grade ore stockpile is removed the underlying topsoil would be scarified and broadcast seeded with the following seed mix:

<b>Species</b>	<b>Application rate/lbs./Acre PLS</b>
Arriba Western Wheat grass	2.7
Primar Slender Wheat grass	2.0
Luna Pubescent Wheat grass	3.0
Nordan Crested Wheat grass	1.5
Paloma Indian Rice grass	2.1
Needle and Thread grass	2.4
Hachita Blue Grama	0.4
Lewis Flax	0.8
Cedar Palmer Penstemon	0.2
Lutana Cicer Milk vetch	0.3
Rincon or native four wing salt brush	<u>3.0</u>
<b>PLS/acre Total</b>	<b>18.4 lbs.</b>

The ore would be loaded with one front end loader into 21-ton semi-trucks and hauled to the White Mesa Mill located in Blanding, Utah. Permits have been obtained from Mesa County to haul the ore with 21-ton semi-trucks on Mesa County roads 5/10 and Z 2.4 to highway 141 for a period of approximately one month. It will take about 24 days to haul 15 loads per day to the mill. Nuvemco is proposing to haul the ore at night Monday through Friday to avoid impacting recreation related traffic on John Brown Canyon road. They propose to begin loading and hauling between 10:00 PM and midnight and bring all of the haul trucks down at once with an escort vehicle by 2:00 AM or later, but before dawn.

The haul trucks would be staged on the Z 2.4 county road before and after loading. The Mesa County permit would require all county roads utilized to be treated with Magnesium-Chloride for dust control. The site access road off of the county road requires no improvement and would be scarified and seeded upon completion of the project. A truck turn around area, 80'x60', would be constructed near the stock pile. The truck turn around area would also be scarified and seeded upon completion of the project. Nuvemco will submit an Emergency Spill Response Plan to describe what actions are proposed in the event of a haul truck accident resulting in a spill into surface water.

NO ACTION ALTERNATIVE: The no-action alternative is to deny Nuvemco's reclamation proposal. None of the low grade uranium/vanadium ore rock would be removed and the area would not be reclaimed.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL: Daytime hauling was considered, but dropped from further analysis. Hauling the ore during day light hours would increase impacts to recreational use of John Brown Canyon road, and increase the potential for wildlife injuries and fatalities resulting from vehicle collisions during early morning or early evening periods. Mesa County has also issued a road use permit to Nuvemco requiring ore haul traffic to take place at night.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: Grand Junction Resource Management Plan (RMP)

Date Approved: January, 1987

Page or Decision Number: Page 2-6

Decision Language: Allow mineral exploration and development on lands open to location (Table 4).

In January 1997, the Colorado State Office of the BLM approved the Standards for Public Land Health and amended all RMPs in the State. Standards describe the conditions needed to sustain public land health and apply to all uses of public lands.

Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes.

Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods.

Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential.

Standard 4: Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Standard 5: The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado.

Because standards exist for each of these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

## **PUBLIC PARTICIPATION**

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### **Scoping, Consultation and Coordination**

NEPA regulations (40 CFR §1500-1508) require that the BLM use a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to allow public participation to identify issues, concerns, and potential impacts that require detailed analysis. Scoping was the primary mechanism used by the BLM to initially identify issues regarding the proposed October mine reclamation.

BLM published a press release on July 2, 2008 and posted the press release and project proposal on the BLM GJFO website. GJFO scoped this project for 16 days from July 2 to July 18 and received no formal public input. Issues were identified through internal BLM scoping with interdisciplinary resource specialists.

## **AFFECTED ENVIRONMENT ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:**

### **GENERAL ANALYSIS OF THE NO-ACTION ALTERNATIVE**

Implementation of the no-action alternative would not change current status of critical or non-critical elements. The low grade uranium/vanadium ore rock pile would remain in the drainage and the area would not be reclaimed.

## **ANALYSIS OF THE PURPOSED ACTION**

### **CRITICAL ELEMENTS**

#### **AIR QUALITY**

Affected Environment: Air quality in the project area is typical of undeveloped regions in the western United States. No designated Class I airsheds are located within Mesa County. The closest Class I airsheds, at distances of 50+ air miles, are the Flat Tops and Maroon Bells Wilderness Areas, and the wilderness portion of Black Canyon National Park. In addition, the State of Colorado limits the incremental amount of SO<sub>2</sub> allowed in Dinosaur and Colorado National Monuments.

The primary sources of air pollutants in the region are fugitive dust from the desert surrounding the planning area, unpaved roads and streets, seasonal sanding for winter travel, motor vehicles, and wood-burning stove emissions. Seasonal wildfires throughout the western U. S. may also contribute to air pollutants and regional haze. The ambient pollutant levels are usually near or below measurable limits, except for high short-term increases in PM<sub>10</sub> levels (primarily wind-blown dust), ozone, and carbon monoxide. Within the Rocky Mountain region, occasional peak ozone levels are relatively high, but are of unknown origin. Elevated concentrations may be the result of long-range transport from urban areas, subsidence of stratospheric ozone or photochemical reactions with natural hydrocarbons. Occasional peak concentrations of CO and SO<sub>2</sub> may be found in the immediate vicinity of combustion equipment. Locations vulnerable to decreasing air quality include the immediate areas around mining and farm tilling, local population centers, and distant areas affected by long-range transportation of pollutants. Representative monitoring of air quality in the general area indicates that the existing air quality is well within acceptable standards.

The EPA General Conformity regulations require that an analysis (as well as a possible formal conformity determination) be performed for federally sponsored or funded actions in non-attainment areas and in designated maintenance areas when the total direct and indirect net air pollutant emissions (or their precursors) exceed specified levels. Since the GJFO is not within a non-attainment or a maintenance area, the Clean Air Act conformity regulations do not apply.

Environmental Consequences/Mitigation: No significant impacts to air quality, long term or short term, are expected as a result of implementing the proposed action.

#### **AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)**

Affected Environment: There are no ACEC's within or adjacent to the project area.

Environmental Consequences/Mitigation: The proposed action would have no effect on ACEC's.

## **CULTURAL RESOURCES**

**Affected Environment:** A records search of the general project area, and a Class III inventory of the Area of Potential Effect, as defined in the National Historic Preservation Act (NHPA), was completed, (GJFO CRIR 8308-02). Conditions of the existing cultural environment are incorporated by this reference. In addition the following briefly summarizes cultural resources in the APE as researched by the BLM. A recent historic site was recorded by the inventory. A Navajo sweat house is spatially associated with the ruins of a domestic camp. The target of the proposed action, the ore pile, is within the boundary of this site, 5ME16500. The base of the ore pile is less than 5 feet from the base of the sweat house. Indications, both from cultural remains and anecdotal stories, are that the site was occupied between the 1960s and the 1980s. The presence of Navajo workers in Uranium Mines on the Colorado Plateau is well documented, and there is limited documentation to the southeast of the project area in Long Park. A discussion of tribal member's participation and impacts to tribal members from occupational hazards of Uranium mining is incorporated by reference (Brugge, Benally and Yazzie-Lewis 2006 and P. Eichstaedt 1994). The project inventory and evaluation is in compliance with the NHPA, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources.

**Environmental Consequences/Mitigation:** Based on the findings and in consultation with the Historic Preservation Office of the Navajo Nation the site is recommended by the BLM to be potentially eligible for nomination to the National Register. Although the site is less than 50 years old, the National Register Bulletin – Guidelines for Evaluating and Nominating Properties that have Achieved Significance within the Past Fifty Years (USDOI-NPS 1979 revised 1998) clearly provides guidance for preserving the recent past. In consultation with the Navajo Nation the protection of the site's features was identified as a priority and the removal of the more recent ore pile is seen as a benefit to restoring the integrity of feeling and setting to the ruins of the historic camp. Avoidance of impacts to the site is required as a condition of authorizing this action and can be achieved through installation of a temporary solid physical barrier fence at the base of the ore pile to prevent any ore rock material from tumbling off the pile and crushing the sweat house and a monitor positioned at the sweat house during any equipment operation in the project area. The construction of the fence and the removal of the fence will be monitored by the BLM archaeologist. A pre-work meeting with the equipment operators is required and the BLM review and approval of the barrier design to ensure adequacy of protection is also required. The monitoring does not require an archaeological monitor as this is a construction avoidance stipulation and does not require special skills. The BLM will conduct random monitoring during the operation to ensure appropriate methods are being employed. Stipulations also include:

**Inadvertent Discovery:** The NHPA, as amended, requires that if newly discovered historic or archaeological materials or other cultural resources are identified during the Proposed Action implementation, work in that area must stop and the BLM Authorized Officer (AO) must be notified immediately. Within five working days the AO will inform the operator as to the mitigation measures the operator will likely have to undertake before the site can be used (assuming in place preservation is not necessary) (36 CFR 800.13).

The Native American Graves Protection and Repatriation Act (NAGPRA) requires that if inadvertent discovery of Native American Remains or Objects occurs, any activity must cease in

the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice be made to the BLM Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA Section 3(d)).

A standard Education/Discovery stipulation for cultural resource protection should be attached to the Conditions of Approval. The operator or its contractor is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts.

Strict adherence to the confidentiality of information concerning the nature and location of archeological resources would be required of Nuvemco and all of their subcontractors (Archaeological Resource Protection Act, 16 U.S.C. 470hh).

## **ENVIRONMENTAL JUSTICE**

**Affected Environment:** The requirements for environmental justice review were established by Executive Order 12898 (February 11, 1994). That order declared that each Federal agency is to identify “disproportionately high and adverse human health or environment effects of its programs, policies, and activities on minority populations and low income populations.”

According to Census 2000, the only minority population of note in the impact area is the Hispanic community of Mesa County. Persons describing themselves as Hispanic or Latino represented 10.0 percent of the population, considerably less than the Colorado state figure for the same group, 17.1 percent. Blacks, American Indians, Asians and Pacific Islanders each accounted for less than one percent of the population, below the comparable state figure in all cases. The census counted 7.0 percent of the Mesa County population as living in families with incomes below the poverty line, compared to 6.2 percent for the entire state. Both minority and low income populations are dispersed throughout the county.

**Environmental Consequences:** The socioeconomic impacts of public land management are not large relative to the basic social and economic resources of Mesa County. Additionally, the minority and low-income populations of the county are small relative to state-wide averages and such populations are dispersed throughout the county. Therefore, no minority or low-income populations would suffer disproportionately high and adverse effects as a result of any of the alternatives.

**Mitigation:** None

## **FLOODPLAINS**

**Affected Environment:** There are no floodplains associated with the project area.

**Environmental Consequences/Mitigation:** There would be no impacts to floodplains and no mitigation is needed.

## **INVASIVE, NON-NATIVE SPECIES**

Affected Environment: The general area was inventoried for noxious weed during the 2000 field season by BLM crews. Scattered infestations of Russian knapweed were found throughout the area, mostly on roads and within old disturbances.

Environmental Consequences/Mitigation: Removing this stockpile and reclaiming the area will not have a significant impact from a weed standpoint. The area is slotted for repeat inventories, which will allow for early detection and a rapid response to weed infestations.

## **MIGRATORY BIRDS**

Affected Environment: The October mine ore pile is in piñon juniper habitat. Birds of conservation likely to occur in this habitat type are Gray vireo, piñon jay, and black-throated gray warbler. The haul trucks will be taking ore down John Brown Road and along the Dolores river into Utah passing through a large variety of habitat types.

Environmental Consequences/Mitigation: Ground disturbance will only occur in the piñon juniper habitat type. Impacts to migratory birds are not expected as ore removal is expected to occur in the fall (outside of the breeding season), and the majority of the area to be disturbed is currently a barren waste rock pile (see attached photos). Impacts to migratory birds along the haul route are possible if haul trucks are overturned and ore is deposited along the route. An Emergency Spill Response Plan that addresses environmental concerns, will be developed to describe what actions are proposed in the event of a haul truck accident resulting in a spill into surface water.

## **NATIVE AMERICAN RELIGIOUS CONCERNS**

Affected Environment: A cultural resource affiliated with the Navajo was located during the field inventory. Accordingly Native American Indian consultation was conducted for the proposed undertaking. The BLM sent information regarding the site to the Navajo Nation Historic Preservation Office and Mr. Timothy Begay responded by phone within two weeks of receipt of our letters. Through phone conversations concluded on September 3, 2008 it was determined that the project area holds special significance for Native Americans for traditional or religious purposes.

Environmental Consequences/Mitigation: Although the specific Navajo families that were associated with the site are not known, the sweat houses and the associated features are important as part of religious renewal and cleansing, activities done while laboring in this local mining industry. The religious importance of the feature was emphasized by Mr. Begay. The avoidance stipulations detailed in the Cultural Resources section above would protect the feature and the project would not alter or limit any access if there were traditional ties to the site by family members. It is the Navajo Nation practice to buffer these features by at least fifty feet and protect them from any modern disturbance or destruction. No attempt is made to protect these resources from degradation or destruction from natural causes.

## **THREATENED, ENDANGERED AND SENSITIVE SPECIES (includes finding on Standard 4)**

### Affected Environment:

Canyon treefrogs, midget faded rattlesnakes and Townsends big eared bats (all BLM sensitive species) have been recorded in the vicinity of the ore pile. The bonytail chub, Colorado pikeminnow, humpback chub, and razorback sucker are a group of endangered fish that may inhabit the Colorado River system downstream. These fish have been found mainly in the Colorado, Gunnison, and Green rivers, with the Colorado pikeminnow also thought to occur in the San Juan, Yampa, White, and Dolores rivers. Habitat for the southwestern willow flycatcher (federally endangered) and yellow billed cuckoo (federal candidate for listing) and bald eagles (BLM sensitive) occurs along the Dolores river on the haul route.

Environmental Consequences/Mitigation: Ground disturbance will only occur in the pinion juniper habitat type. Impacts to midget faded rattlesnakes and Townsends big eared bats are not expected as the majority of the area to be disturbed is currently a barren waste rock pile (see attached photos). Increased traffic on John Brown Road may impact some individual Townsends big eared bats and midget faded rattlesnakes, particularly because these species are active at night and the hauling will occur at night under the proposed action. However the hauling will only last one month and population densities of these species in this area are low, therefore impacts are not expected to be significant. Impacts to listed and sensitive species along the haul route are possible if haul trucks are overturned and ore is deposited along the route. An Emergency Spill Response Plan that addresses environmental concerns, will be developed to describe what actions are proposed in the event of a haul truck accident resulting in a spill into surface water. Therefore the proposed action is expected to have no effect on threatened, endangered, candidate or sensitive wildlife.

## **WASTES, HAZARDOUS OR SOLID**

Affected Environment: Hazardous or solid wastes are not a part of the natural environment. They could be introduced through implementation of the proposed action.

Environmental Consequences/Mitigation: Hazardous wastes could be introduced into the environment in the form of spilled fuel, hydraulic fluid, or oil used by the machinery and the resulting contaminated soil and water. Care should be taken to prevent spills of these materials and any contaminated soil should be treated or disposed of properly or remediated onsite. Fueling and maintenance activities should not take place in or adjacent to any drainages (perennial or ephemeral.) All product containers (oil and hydraulic fluid cans, etc.) should be removed from the site and disposed of properly.

## **WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)**

Affected Environment: The October Mine is located in the Cave Canyon drainage, which is tributary to the Dolores River. Cave Canyon is an intermittent to ephemeral stream that flows primarily in response to snowmelt and storm events. It is a high gradient stream with steeply-sided canyon walls. It is a very flashy system capable of conveying large flood flows with high sediment loads, particularly following localized summer convective storms. BLM operates a



rain gage within one-half mile from the October Mine site. Average annual precipitation over the period of record from 1984 to present is 17 inches.

Cave Canyon is in Stream Segment 3a of the Lower Dolores River Basin, which includes all tributaries of the Dolores from the bridge at Bradfield Ranch to the Colorado/Utah border. This is a use-protected segment, and is classified for the following beneficial uses: aquatic life warm 2, recreation E, and agriculture. The main stem of the Dolores River is part of Segment 2, and is classified for aquatic life warm 1, recreation E, and agriculture. The State has developed water quality standards to protect the assigned beneficial uses. Both stream segments appear to be meeting standards as they are not listed on the 303(d) list of impaired water bodies. Water quality in Cave Canyon has been and may still be affected by past uranium mining; waste rock and likely low-grade ore were left in sections of the stream or pushed down steep hill-slopes to the stream. No BLM water quality data are available for Cave Canyon due to its limited flows. Uranium and radium concentrations are expected to be elevated due to the waste rock and ore in sections of the stream channel.

Environmental Consequences/Mitigation: The proposed action would remove a 0.35-acre pile of low-grade ore from a north-sloping bench of Cave Canyon, left from the old October Mine. Overall impacts to water quality, particularly in the long-term, would be positive. In the current condition, direct rainfall and overland flows that come into contact with the ore pile becomes contaminated with radioactive elements including uranium. Surface flows continue down to Cave Canyon and on to the Dolores River. Groundwater may also currently be impacted from ore pile leachate. Ore removal would eliminate future contact between the ore and stormwater. In the short-term, impacts to water quality may be negative due to construction of a truck turn around and inevitable off-road surface disturbance from the haul trucks. These should be minor and would be immeasurable. As a mitigation measure, vehicle fueling and maintenance activities should not take place in or adjacent to Cave Canyon or water bodies contributing to it. Any spills that occur along their haul route, particularly in or adjacent to perennial water bodies such as the Dolores River and John Brown Canyon, would negatively impact water quality due to the introduction of ore to the system. Prompt removal of the spilled ore while minimizing damage to the stream channel and banks would help reduce impacts. Scarification of the soil and seeding would help restore watershed cover to the site. Restoration efforts would be aided by natural site factors such as the north aspect and annual precipitation of 17 inches. Introduction of organic material to the soil may be necessary for plant growth.

Finding for Land Health Standard 5: State water quality standards for Cave Canyon and the affected segment of the Dolores River currently appear to be met, thus achieving Standard 5 for water quality.

#### **WETLANDS & RIPARIAN ZONES (includes a finding on Standard 2)**

Affected Environment: The October Mine is located in the Cave Canyon drainage, which is tributary to the Dolores River. Cave Canyon is an intermittent to ephemeral stream that flows primarily in response to snowmelt and storm events. There is no riparian habitat within Cave Canyon. The Dolores River is perennial having generally well developed riparian habitat with exception to noxious weeds (tamarisk and knapweed species). The Dolores River has been

inventoried and is *Properly Functioning*. The transportation route would include John Brown Canyon which maintains a diverse riparian community and has been determined to be *Properly Functioning*.

Environmental Consequences/Mitigation: With removal of the ore and completion of reclamation the risk of contaminants entering Cave Canyon will be decreased. Under the no action alternative the opportunity for leaching and contaminant transportation into Cave Canyon would be greater than the proposed action. There is the opportunity for a haul truck to have an accident into John Brown Canyon or the Dolores River. If this were to occur there is expected to be physical damage of riparian vegetation and contamination related to the spill of toxic materials. By toxic materials these would include petroleum and liquid products used in the truck and not the low grade ore material. Following the required cleanup, riparian vegetation would reestablish on site.

Finding for Land Health Standard 2: Impacts associated with either the ore removal or no action alternatives would not contribute to riparian habitat degradation of the Dolores River. Standard 2 would continue to be met.

## **WILD AND SCENIC RIVERS**

Affected Environment: There are no designated Wild and Scenic Rivers (WSR) within or adjacent to the project area. However, an inventory is currently underway to study WSR eligibility of all waterways in the Grand Junction Field Office. John Brown and Cave Canyon Creeks are all both near the project area and may be eligible (but not necessarily suitable) for WSR designation.

Environmental Consequences/Mitigation: The proposed action would have no effect on WSR's, nor would it affect WSR eligibility.

## **WILDERNESS**

Affected Environment: There are no designated wilderness or wilderness study areas within or adjacent to the project area.

Environmental Consequences/Mitigation: The proposed action would have no effect on wilderness resources or characteristics.

## **ELEMENTS ESSENTIAL TO PUBLIC LAND HEALTH STANDARDS:**

### **SOILS (includes a finding on Standard 1)**

Affected Environment: The soil association associated with the project proposal is a #66—Bodot-Sili-Rock outcrop complex. This complex is found at elevations of 5,500 to 8,100 feet. The soil on site is a Bodot soil. The parent material is colluvium derived from sandstone and shale over residuum weathered from clayey shale. Slopes are 6 to 25 percent. The ecological site is unspecified, which is a pinyon/juniper woodland site with a good understory of shrub and grass species. Generally soils in a pinyon/juniper association are shallow, but when disturbed and reclaimed these soils develop greater vegetation cover and soil stability than the parent community.

Environmental Consequences/Mitigation: Removal of the ore pile and reclamation of the site is expected to increase soil disturbance of the adjacent areas. Within 3-5 years following reclamation seeded species are expected to be established in improving soil stability and decreasing erosion. The no action alternative would maintain current conditions of a barren ore pile that is susceptible to erosion.

Finding for Land Health Standard 1: Under the proposed action soil stability and development would be improved. Standard 1 would be met by the proposed action.

### **VEGETATION (includes a finding on Standard 3)**

Affected Environment: The vegetation community around the ore pile is a pinyon/juniper woodland consisting of mostly pinyon with an understory of serviceberry and various grasses and shrubs.

Environmental Consequences/Mitigation: Pinyon/juniper woodlands that are predominantly pinyon have greater ability to respond to reclamation because of the greater precipitation that developed this vegetation association. Removal of the spoil pile may reveal underlying soil which if cultivated could be suitable material for seeding, but this is unlikely. Two options for increasing soil once the ore pile is removed include; pulling topsoil and vegetative material (brush and pinions) from the adjacent area and seeding this substrate; or hauling in topsoil from a suitable site. The silt removed from the crossings in John Brown canyon would suffice as material for covering rock and seeding establishment would occur. Under the no action alternative the spoil pile would eventually be covered with vegetation, most likely undesirable, which could serve as a seed source for perpetuating undesirable plant species. Broadcast application of the seed mix should work well if completed immediately after soil preparation is completed or when the area is covered in snow.

Mitigation: If following removal of the ore material no soil material is found, the permit holder would be required to cover the site either with adjacent soil and vegetation material (retain 50% of soil material on the borrow area) , or bringing in suitable topsoil material. Topsoil material would be a minimum of four inches in depth.

### **WILDLIFE, AQUATIC (includes a finding on Standard 3)**

Affected Environment: The Dolores River, seeps and the intermittent and perennial streams of the John Brown Canyon complex provide habitat for a variety of aquatic species in the project area.

#### **Environmental Consequences/Mitigation:**

Implementation of the Proposed Action would not directly impact aquatic resources; however there is the potential for impact should an ore haul truck have an accidental spill to streams that are tributary to the Dolores River. The trucks route coincides with the Dolores River and crosses the Dolores River. This potential impact is unlikely; however, should it occur, it would be addressed through implementation of an Emergency Response Plan.

Finding on the Public Land Health Standard 3 for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): Implementation of the proposed action would not affect Public Land Health Standard 3 for aquatic wildlife.

### **WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)**

Affected Environment: The project area around the ore pile does not contain any critical big game winter range though the haul route does contain some critical big game winter range. Other terrestrial species common to the area include black bear, mountain lion, coyote, and a variety of small mammals, reptiles, amphibians, and resident birds.

#### **Environmental Consequences/Mitigation:**

Impacts to terrestrial wildlife are not expected as the majority of the area to be disturbed is currently a barren waste rock pile (see attached photos). Increased traffic on John Brown Road may impact some individuals however impacts are expected to be reduced by hauling between 10 pm and 2 am. There is the potential for impact should an ore haul truck have an accidental spill to streams that are tributary to the Dolores River. The trucks route coincides with the Dolores River and crosses the Dolores River. This potential impact is unlikely; however, should it occur, it would be addressed through implementation of an Emergency Response Plan.

**OTHER NON-CRITICAL ELEMENTS:** In addition to the critical elements and elements essential to Land Health Standards, the resources presented below were also considered for impact analysis relative to the Proposed Action and No Action Alternative. Resources that would be affected are discussed below.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access		X	
Cadastral Survey	X		
Fire Management	X		
Fuels Management	X		
Forest Management	X		
Geology and Minerals	X		
Hydrology/Water Rights			X
Law Enforcement	X		
Paleontology	X		
Range Management		X	
Realty Authorizations	X		
Recreation		X	
Socio-Economics	X		
Transportation		X	
Visual Resources		X	

### **NON-CRITICAL ELEMENTS ANALYSIS:**

#### **HYDROLOGY**

Affected Environment: Please see Water Quality Section above.

Environmental Consequences/Mitigation: Removal of the ore pile and restoration of the site by scarification and seeding would help return Cave Canyon to a more natural hydrograph. Soil infiltration would be improved and more precipitation would be retained and released slowly over time compared to the impervious rock pile. Although the ore pile area is relatively small, on a watershed-scale, small cumulative actions such as this would have measurable (positive) impacts to hydrology.

### **SUMMARY OF CUMULATIVE IMPACTS:**

The Uravan Mineral Belt through Western Colorado has numerous historical mine sites and associated waste rock piles. The proposed removal of the low grade uranium/vanadium ore stockpile would help to reduce the overall environmental impacts and improve reclamation of historic uranium/vanadium development within the Uravan Mineral Belt. This project will incrementally add to the overall vehicle numbers, for a short period of time, in the Gateway Area from other mineral development, recreationalists, and tourists.

### **PERSONS / AGENCIES CONSULTED:**

State Historic Preservation Office  
Navajo Nation Historic Preservation Office

**INTERDISCIPLINARY REVIEW**

<b>NAME</b>	<b>TITLE</b>	<b>AREA OF RESPONSIBILITY</b>
Christina Stark	Natural Resource Specialist	Rights-of-Way
Julia Christiansen	Natural Resource Specialist	O&G Permitting and Surface Management, Reclamation, VRM
Aline LaForge	Archaeologist	Cultural Resources, Native American Religious Concerns
Ken Straley	Outdoor Recreation Planner	Wild & Scenic Rivers, Wilderness, ACEC's, Access, Transportation, VRM, & Recreation
Matt McGrath	Outdoor Recreation Planner	NCA, Recreation, Wilderness, VRM, Wild & Scenic Rivers
Jim Dollerschell	Range Management Specialist	Range, Wild Horse & Burro Act
David "Scott" Gerwe	Geologist	EA Review Coordination, Geology, Paleontology, Groundwater
Alan Kraus	Hazard Materials Specialist	Hazardous Materials
Robin Lacy	Realty Specialist	Land Status/Reality Authorizations
Heidi Plank	Wildlife Biologist	Migratory Bird Treaty Act, T&E Species, Terrestrial & Aquatic Wildlife
Anna Lincoln	Ecologist	Range, Land Health Assessment, T&E Plant Species
Bob Fowler	Range Management Specialist	Vegetation, Range, Riparian, Floodplains
Matt Anderson	NEPA and Environmental Coordinator	Air Quality, Environmental Justice, Prime & Unique Farmlands, Environmental Coordination
Min "Janny" Choy	Hydrologist	Water Quality, Hydrology, Water Rights
Jacob Martin	Natural Resource Specialist	Range, Forestry, Land Health Assessment
Mark Taber	Range Management Specialist	Invasive, Non-Native Species (Weed Management Coordinator)
Angie Foster	Fire Ecologist	Fire Ecology, Fuels Management
David Lehmann	Supervisory Natural Resource Specialist	Supervisor, Use Authorization Staff

## ATTACHMENT 1



Looking northeast at low grade ore stockpile on October Mine site (March, 2008).



Close up of same stockpile above.



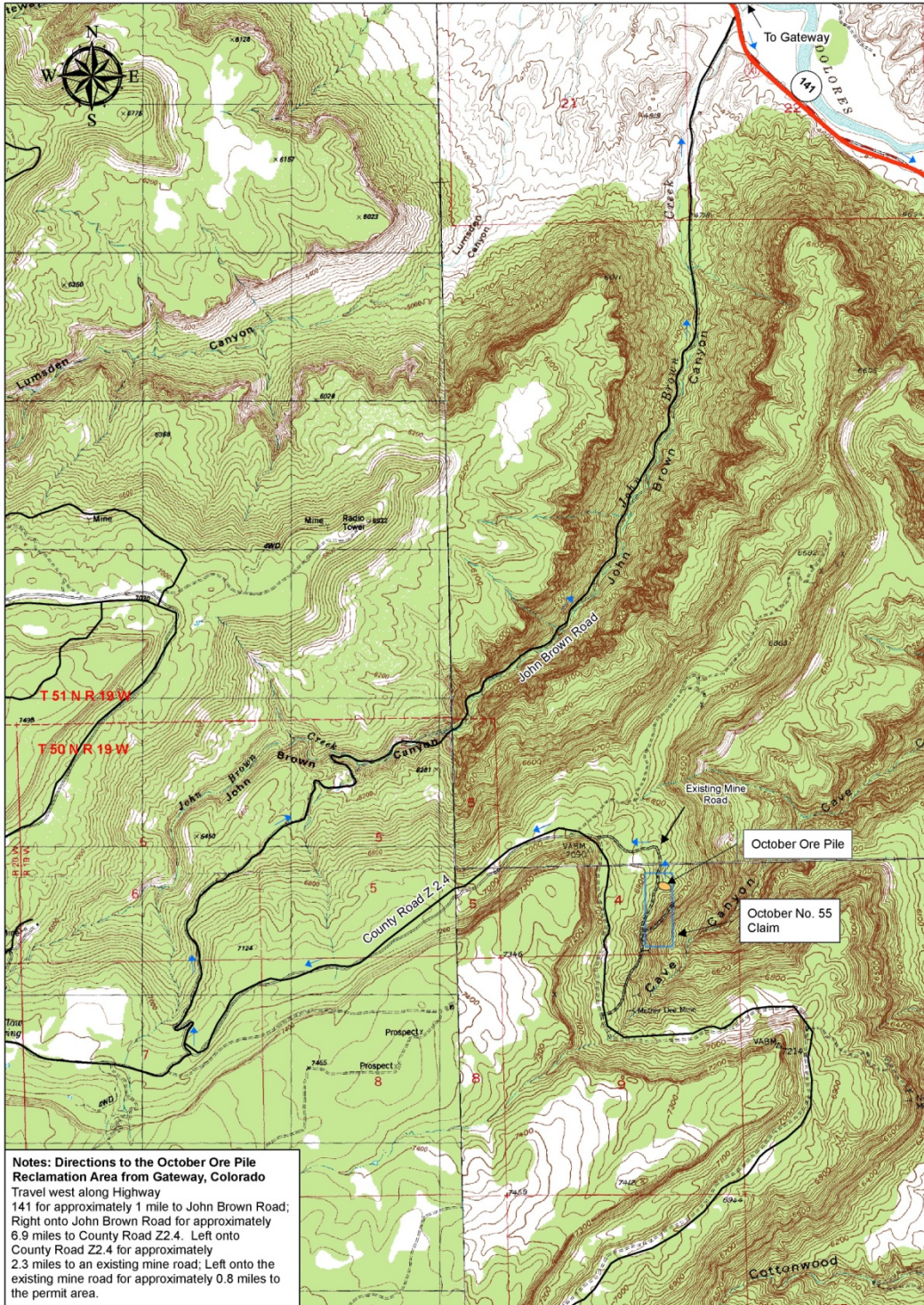


## Aerial Image of October Ore Pile

Source: Google Earth; ©2008 Digital Globe

Date Accessed: 06-26-08



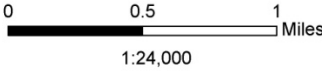


**Notes: Directions to the October Ore Pile Reclamation Area from Gateway, Colorado**  
 Travel west along Highway 141 for approximately 1 mile to John Brown Road; Right onto John Brown Road for approximately 6.9 miles to County Road 22.4. Left onto County Road 22.4 for approximately 2.3 miles to an existing mine road; Left onto the existing mine road for approximately 0.8 miles to the permit area.

**Legend**

- State Highway
- Mesa County Roads
- Mine Road
- October Ore Pile
- October No. 55 Claim
- Ore Transport Route

**October Ore Pile Reclamation Permit**  
 Exhibit A. Map 1. Index Map.



Nuvmco, LLC  
 650 Linden Avenue  
 Boulder, CO 80304

Adapted from USGS Gateway, Juanda Arch, Dolores River North, and Dolores River South 7 1/2 min quadrangle maps. Datum: NAD 83. Created: A. Janderek. File Path: R:\Projects\057 Nuvmco\NuvmcoMap

PROJECT	DRAWING	SCALE	DATE	REVISION
Nuvmco	N/A	1:24,000	6-23-08	1.0





# **FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

## **CO-130-2008-60-EA OCTOBER MINE SITE RECLAMATION PROJECT**

The environmental assessment and analysis of the environmental effects of removing 7,500 tons of low grade uranium/vanadium ore and reclaiming the mine site have been reviewed. The approved mitigation measures result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

### **DECISION RECORD**

DECISION: It is my decision to accept the proposal by Nuvemco to remove 7,500 tons of low grade uranium/vanadium ore and reclaim the 0.35 acre site, the 80'x60' truck turn around area, and access road.

RATIONALE: Implementation of the proposed action would not result in significant negative environmental impacts. It would also further the BLM's objectives to reclaim existing surface disturbance related to historic uranium development.

APPEALS LANGUAGE: This decision may be appealed to the State Director or the Office of Hearing and Appeals, in accordance with 43 CFR 3809.800. The appeal must be submitted in writing within 30 calendar days from the date of receipt of the decision, to the Colorado State Director, 2850 Youngfield Street, Lakewood Colorado 80215. The original decision or the decision of the State Director may also be appealed to the Office of Hearings and Appeals.

PROTECTIVE MEASURES: Several protective/mitigation measures were described in the EA. Many of the measures are requirements, stipulations, and conditions included in other permits issued by the Colorado Division of Mine Reclamation and Safety, and the Mesa County Department of Planning and Economic Development. The protective/mitigation measures that BLM has chosen to include as stipulations to this Decision are included as Attachment A. BLM has included additional protective/mitigation measures in addition to those stipulated or conditioned in other permits and approvals. These are also described in Attachment A.

COMPLIANCE/MONITORING: Inspections will be performed during the stockpile removal and after reclamation work is completed. Reclaimed areas will be monitored for vegetation establishment and noxious weed management for at least three growing seasons prior to consideration of releasing the reclamation bond.

NAME OF PREPARER: /s/ Scott Gerwe

NAME OF ENVIRONMENTAL COORDINATOR: /s/ Matt Anderson

DATE: September 5, 2008

SIGNATURE OF AUTHORIZED OFFICIAL:

/s/ Catherine Robertson  
GRAND JUNCTION, Field Manager

DATE SIGNED: September 5, 2008

ATTACHMENTS: Map of proposed location, photos of low-grade ore stockpile, soil survey map, and Attachment A listing BLM required Conditions of Approval.

## **ATTACHMENT A**

### **Conditions of Approval October Mine Reclamation Project EA**

1. Diesel generators shall only be used during hours of operation and shall comply with current EPA emission standards.
2. Nuvemco shall use very low sulfur content diesel fuel, containing less than 15 parts per million of sulfur, in the generators and other equipment.
3. Nuvemco shall implement dust suppression measures including tarping of truck beds prior to leaving the mine, spraying water, and application of magnesium chloride on the ore haulage roads.
4. Ore haul trucks shall be loaded between 10:00 PM and midnight and lead down John Brown Canyon road once with an escort vehicle by 2:00 AM or later, but before dawn. Haul truck traffic is limited to 5 days a week, Monday through Friday. The ore truck traffic must be completed by December 15.
5. Ore haul trucks shall be securely tarped prior to leaving the mine site.
6. Nuvemco's ore haulage contractors shall obtain all necessary permits and clearances, following U.S. Department of Transportation, Colorado Department of Transportation, and Utah Department of Transportation regulations.
7. Avoidance of impacts to the sweat house next to the ore pile is required as a condition of authorizing this action and can be achieved through installation of a temporary solid physical barrier fence at the base of the ore pile to prevent any ore rock material from tumbling off the pile and crushing the sweat house, and a monitor positioned at the sweat house during any equipment operation in the project area. The construction of the fence and the removal of the fence will be monitored by the BLM archaeologist. A pre-work meeting with the equipment operators is required and the BLM review and approval of the barrier design to ensure adequacy of protection is also required. The monitoring does not require an archaeological monitor as this is a construction avoidance stipulation and does not require special skills. The BLM will conduct random monitoring during the operation to ensure appropriate methods are being employed.
8. Nuvemco shall inform all persons who are associated with the project operations that they would be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts.
9. Nuvemco and all of their subcontractors shall strictly adhere to the confidentiality of information concerning the nature and location of archeological resources. (Archaeological Resource Protection Act, 16 U.S.C. 470hh).
10. Inadvertent Discovery: The NHPA, as amended, requires that if newly discovered historic or archaeological materials or other cultural resources are identified during the Proposed Action implementation, work in that area must stop and the BLM Authorized Officer (AO) must be notified immediately. Within five working days the AO will inform the operator as to the

mitigation measures the operator will likely have to undertake before the site can be used (assuming in place preservation is not necessary) (36 CFR 800.13).

11. The Native American Graves Protection and Repatriation Act (NAGPRA) requires that if inadvertent discovery of Native American Remains or Objects occurs, any activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice be made to the BLM Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA Section 3(d)).
12. Vehicle fueling and maintenance activities shall not take place in or adjacent to Cave Canyon or water bodies contributing to it.
13. Nuvemco shall contain and control chemicals and hydrocarbon products (including used oil) in accordance with their Materials Containment Plan and SPCC Plan, respectively.
14. Nuvemco shall notify the BLM Hazardous Material Coordinator as soon as possible if there is a spill during ore transport.
15. Nuvemco shall submit an Emergency Spill Response Plan to describe what actions are proposed in the event of a haul truck accident resulting in a spill into surface water.
16. During vegetation clearing and topsoil salvaging, all clearing work shall be completed when soils are not saturated and shall occur without the mixing of soil and vegetation.
17. Silt fencing shall be installed around the permit boundary area, specifically around the truck turn around area, truck loading area, and ore stockpile.
18. Broadcast seeding will be completed after August 15 and prior to October 1.
19. All topsoil shall be salvaged from disturbed areas and stockpiled prior to surface disturbing activities.
20. The reclaimed area shall be fenced to exclude livestock for a minimum of 3 years after reclamation.
21. If following removal of the ore material no soil material is found, Nuvemco shall cover the site either with adjacent soil and vegetation material (retain 50% of soil material on the borrow area), or bring in suitable topsoil material removed from John Brown Canyon road low water crossings. Topsoil material shall be a minimum of four inches in depth.
22. Nuvemco's Weed Control Plan shall be implemented throughout the hauling operation and during reclamation.
23. If necessary, Nuvemco shall consult with the BLM and county weed control staff regarding problematic weed infestation areas and appropriate control measures would be agreed upon prior to initiation.
24. Nuvemco shall mark and avoid weed infested areas.
25. Nuvemco shall wash/rinse tracked equipment and mine-related vehicles that come in contact with identified areas of noxious and invasive weeds.

26. Nuvemco shall spray noxious weeds. The herbicides to be used shall be approved by BLM and county weed control staff.
27. State, county, and BLM listed species scheduled for eradication that are found in the project area shall be eradicated and reported to the county weed inspector.
28. A bear proof roll-off container for disposal of trash shall be located on-site. No landfills shall be constructed on-site.
29. Diesel fuel and various oils for use in mobile and on-site equipment shall be stored and used on-site. Secondary containment shall be provided for all petroleum products. As described in detail in Section 2.2.2.9, a SPCC Plan consistent with federal regulation 40 CFR 112 shall be prepared and implemented for storing and using petroleum products on the site.
30. Spills shall be immediately reported to the BLM authorized officer, characterized, and remediated. Spill reporting and containment shall occur immediately and material shall be moved to the nearest approved landfill or disposal facility as necessary.
31. Portable sanitation facilities shall be provided during the ore hauling phase. The waste shall be taken off-site for treatment at an approved facility.
32. Solid waste shall be containerized and hauled to a landfill in accordance with state and local regulations.
33. Ore haul trucks shall be tarped and checked for radiation levels prior to leaving the mine site and the mill site on the return leg.