

U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
73544 Hwy 64  
Meeker, CO 81641

## ENVIRONMENTAL ASSESSMENT

**NUMBER:** CO-110-2006-132-EA

**CASEFILE/PROJECT NUMBER** (optional): COC 66380

**PROJECT NAME:** APD Hells Hole 19-1

**LEGAL DESCRIPTION:** T. 2S, R. 103W, sec. 19 NENE

**APPLICANT:** Robert L. Bayless Producer, LLC.

**ISSUES AND CONCERNS** (optional): Private surface, onsite April 6, 2006.

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

***Background/Introduction:*** Location is on private surface with federal minerals.

**Proposed Action:** The following shall serve as a summary of the surface use agreement between the applicant and the landowner. For details refer to the APD. Applicant proposes to construct a new well location. Site preparation for production will be done with standard excavation equipment using native materials. Additional surface material will be obtained from a commercial source or an approved borrow area. Production facilities may vary according to actual reservoir discovered and will be engineered upon completion of well tests. The color Juniper Green was suggested on the onsite to paint the above ground permanent structures. Any necessary pits will be fenced on all sides to prevent any wildlife and livestock entry and any production pit should be netted bird tight.

The reserve pit will be unlined unless porous material is encountered during pit construction. Backfilling, leveling and contouring of the reserve pit is planned as soon as pit has dried. At least 5' of overburden will cover the reserve pit as part of the reclamation process.

Site reclamation for a producing well will be accomplished for the portions of the location and road area not required for the continued operation of the well. The site will be revegetated by a seed mix recommended by the BLM.

The proposed location is approximately 300' X 175' (1.21 acres) and is on private surface. The proposed access will begin on an existing route off County Road 23 and will cross BLM lands in

2 small areas. Where the access road crosses BLM lands the ROW issued will be for 35'. There will be no upgrading or disturbance on BLM administered lands. New construction will occur on private surface only and is anticipated to be approximately 640' X 40' (5.88 acres).

**No Action Alternative:** In the no-action alternative the wells, access roads and flowlines would not be permitted; therefore there would not be any new disturbance.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:** None

**NEED FOR THE ACTION:** To respond to the request by applicant to exercise lease rights and develop hydrocarbon reserves.

**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: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Pages 2-5

Decision Language: "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

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

**STANDARDS FOR PUBLIC LAND HEALTH:** In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for 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:

**CRITICAL ELEMENTS**

**AIR QUALITY**

*Affected Environment:* The entire White River Resource area has been classified as either attainment or unclassified for all pollutants, and most of the area has been designated prevention of significant deterioration (PSD) class II. The proposed action is not located within a ten mile radius of any special designation air sheds or non-attainment areas. The air quality criteria pollutant likely to be most affected by the proposed actions is the level of inhalable particulate

matter, specifically particles ten microns or less in diameter (PM<sub>10</sub>) associated with fugitive dust. In addition, slight increases in the following criteria pollutants: carbon monoxide, ozone (secondary pollutant), nitrogen dioxide, and sulfur dioxide may also occur during construction due to the combustion of fossil fuels associated with construction operations. Also, non-criteria pollutants such as visibility, nitric oxide, air toxics (e.g. benzene) and total suspended particulates (TSP) may also experience slight short term increases as a result of the proposed actions (no national ambient air quality standards have been set for non-criteria pollutants). Unfortunately, no monitoring data is available for the survey area. However, it is apparent that current air quality near the proposed location is good because only one location on the western slope (Grand Junction, CO) is monitoring for criteria pollutants other than PM<sub>10</sub>. Furthermore, the Colorado Air Pollution Control Division (APCD) estimates the maximum PM<sub>10</sub> levels (24-hour average) in rural portions of western Colorado like the Piceance Basin to be near 50 micrograms per cubic meter (µg/m<sup>3</sup>). This estimate is well below the National Ambient Air Quality Standard (NAAQS) for PM<sub>10</sub> (24-hour average) of 150 µg/m<sup>3</sup>.

*Environmental Consequences of the Proposed Action:* Cumulative impacts detrimental to air quality south of Rangely, CO can be expected as carbon monoxide, ozone (secondary pollutant), nitrogen dioxide, particulate matter, and sulfur dioxide levels are elevated due to increased oil and gas development. Construction equipment producing elemental and organic carbon via fuel combustion combined with surface disturbing activities that leave soils exposed to eolian processes will both increase production of particulate matter (PM<sub>10</sub>) during construction. Elemental and organic carbon existing in the air as PM<sub>10</sub> can reduce visibility and increase the potential of respiratory health problems to exposed parties. However, following initial construction, suggested mitigation, and successful interim reclamation, criteria pollutant levels should return to near pre-construction levels.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* The operator will be responsible for complying with all local, state, and federal air quality regulations as well as providing documentation to the BLM that they have done so. To minimize production of fugitive particulate matter (fugitive dust) from BLM administered access roads, vehicle speeds must not exceed 15 mph *or* dust plume must not be visible at appropriate designated speeds for road design. In addition, the application of a BLM approved dust suppressant (e.g. water or chemical stabilization methods) will be required on BLM administered access roads during dry periods when dust plumes are visible at speeds less than or equal to 15 mph.

Construction equipment will be maintained in good operating condition to ensure that engines are running efficiently. Vehicles and construction equipment with emission controls will also be maintained to ensure effective pollutant emission reductions.

## **CULTURAL RESOURCES**

*Affected Environment:* The proposed well location and access road have been inventoried at the Class III (100% pedestrian) level (Conner and Davenport 2006, Compliance Dated

6/13/2006) with the identification of a portion of a prehistoric trail intersecting the proposed access road. The portion of the historic trail is considered a non-contributing segment of a National Register eligible resource.

*Environmental Consequences of the Proposed Action:* The proposed access road and well location will not have any serious adverse impacts to the National Register eligible trail as it intersects a portion of the trail that is also the current location of a county road. No other sites are known to be within 305 meters of the proposed road or well location.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to cultural resources under the No Action Alternative.

*Mitigation:* 1. The operator 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. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

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

3. No new blading is permitted on the historic trail section except at the point where the proposed access road intersects the county road (historic trail segment).

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

*Affected Environment:* To date the only noxious weeds found in Park Canyon have been thistles including; Canada, bull and musk. These outbreaks have been incidental.

*Environmental Consequences of the Proposed Action:* The proposed action would not disturb any additional public lands. On the existing access road (on BLM) there is the opportunity for noxious weeds to be introduced and to spread to adjacent plant communities as a result of construction equipment and support vehicles.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* The operator is responsible for monitoring the public lands associated with this action for outbreaks of noxious weeds and to control these outbreaks in accordance with the White River ROD/RMP of 1997.

## **MIGRATORY BIRDS**

*Affected Environment:* There are a number of migratory birds that fulfill nesting functions in the project area's lower elevation Wyoming big sagebrush and pinyon-juniper types during the months of May, June, and July, including several species identified as having higher conservation interest by the Rocky Mountain Bird Observatory, Partners in Flight program (i.e., Brewer's sparrow, gray flycatcher, black-throated gray warbler, juniper titmouse). Much of the ~2.8 miles of access required for the proposed action are either major existing road (about 39%) or former well access (existing 2-track, about 42%). Habitats that would be subject to new disturbance (all on private lands) includes about 2 acres each of sagebrush and pinyon-juniper (pad and 0.5 mile access). The only BLM surface involved with this action consists of about 0.5 mile of access along the major existing road (about 0.4 acre each of pinyon-juniper and sagebrush). Those portions of the project situated immediately adjacent to existing forms of disturbance are expected to sustain little if any nesting activity and do not represent favorable nesting habitat for woodland raptors.

Although this area has no open water or wetland areas that support or attract waterfowl use, the development of reserve pits that contain drilling fluids have attracted waterfowl use, at least during the migratory period (i.e., local records: mid-March through late May; mid-October through late November) and likely have similar attraction for migratory and resident passerines.

*Environmental Consequences of the Proposed Action:* Well development is scheduled to begin in early August, late into the 2006 breeding season and well after most nest efforts have been finalized. In the event development lapses into subsequent nesting seasons, the well access road, pipeline, and pad would directly affect about 11 acres of shrubland and woodland habitat, most of which (~7 acres) represents a narrow 20-30 foot corridor that lies immediately adjacent to existing roads. These effects include all BLM-administered surface (about 0.8 acre). In the worst case, no direct and very little indirect disruption (likely not to exceed 5 nests of higher conservation interest birds) of nest attempts are expected in these situations. New disturbance is

confined to private lands and consists of about 2 acres each of sagebrush and woodland habitat. Total worst case direct and indirect disruption would be expected to involve about 5 acres of woodland (up to 2 nest attempts of woodland birds of higher conservation interest) and 13 acres of sagebrush (up to 6 nests of higher conservation interest birds). These impacts are minor and would have no effective influence on the abundance or distribution of migratory bird nesting activity even at the smallest landscape scales.

There have been several recent instances of migratory waterfowl having contacted drilling or frac fluids stored in reserve pits during or after completion operations and are suffering mortality in violation of the Migratory Bird Treaty Act. The extent and nature of the problem is not well defined, but is being actively investigated by the federal agencies and the companies. Until the vectors of mortality are better understood, management measures must be conservative and relegated to preventing bird contact with frac and drilling fluids that may pose a problem.

*Environmental Consequences of the No Action Alternative:* There would be no action authorized that would have potential to disrupt the breeding activities of migratory birds or result in direct bird mortality.

*Mitigation:* It will be the responsibility of the operator to effectively preclude migratory bird access to, or contact with, reserve pit contents that possess toxic properties (i.e., through ingestion or exposure) or have potential to compromise the water-repellent properties of birds' plumage. Exclusion methods may include netting, the use of "bird-balls", or other alternative methods that effectively eliminate migratory bird contact with pit contents and meet BLM's approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to eliminate migratory bird use two weeks prior to initiation of drilling activities. The BLM-approved method will be applied within 24 hours after drilling activities have begun. All lethal and non-lethal events that involve migratory birds will be reported to a White River Field Office Petroleum Engineer Technician immediately.

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

*Affected Environment:* There are no animals listed, proposed, or candidate to the Endangered Species Act, nor animals considered sensitive by the BLM, that are known to inhabit or derive important benefit from the areas potentially influenced by the proposed action.

*Environmental Consequences of the Proposed Action:* Pad and road construction and drilling/completion operations would have no conceivable influence on special status species or associated habitat.

*Environmental Consequences of the No Action Alternative:* There would be no action authorized that would have potential to influence special status species or associated habitats.

*Mitigation:* None.

*Finding on the Public Land Health Standard for Threatened & Endangered species:* The proposed and no-action alternatives would have no influence on populations or habitats of animals associated with the Endangered Species Act or BLM sensitive species and, as such, would have no influence on the status of applicable land health standards.

## **WASTES, HAZARDOUS OR SOLID**

*Affected Environment:* There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

*Environmental Consequences of the Proposed Action:* No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

*Environmental Consequences of the No Action Alternative:* No hazardous or other solid wastes would be generated under the no-action alternative.

*Mitigation:* The applicant should be required to collect and properly dispose of any solid waste generated by the proposed actions.

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

*Affected Environment:* The proposed action is located entirely within the Evacuation Creek fifth level watershed. Sixth and seventh level catchment areas affected by the proposed action are Evacuation Creek and Park Canyon. Park Canyon is an ephemeral tributary to Evacuation Creek in Utah. Evacuation Creek is a perennial tributary to the White River in Utah. The White River is a tributary to the Colorado River.

The “Status of Water Quality in Colorado –2006” (CDPHE 2006b) and Regulation No. 37 Classifications and Numeric Standards for Lower Colorado River Basin (CDPHE 2005a) were reviewed for information relating to drainages impacted by the proposed action. All of the affected watersheds fall into stream segment 22 of the White River Basin. Stream segment 22 is defined as all tributaries to the White River, including all wetlands, lakes and reservoirs, from a point immediately above the confluence with Douglas Creek to the Colorado/Utah boarder, except for specific listings in segment 23. Stream segment 22 has been designated by the state as being beneficial for the following uses: Warm Aquatic Life 2, Recreation 1b, and Agriculture. For stream segment 22, minimum standards for four parameters have been listed. These parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 325/100 ml, and 205/100 ml E. coli (CDPHE, 2006b).

The 2006 303(d) list of segments needing development of TMDLs (CDPHE 2006c) includes two segments within the White River - segment 9b, specifically the Flag Creek portion (for impairment from selenium with a low priority for TMDL development) and segment 22, specifically West Evacuation Creek, and Douglas Creek (sediment impairments with a low priority for TMDL development). Regulation 94 is the State's list of water bodies identified for monitoring and evaluation (CDPHE 2006d), to assess water quality and determine if a need for TMDLs exists. The list includes two White River segments that are potentially impaired – 9 (Flag Creek-pH) and 22 (Soldier Creek- sediment). The White River RMP/ROD (BLM, 1997) has identified East and West Evacuation Creeks as a perennial stream NOT meeting water quality standards for suspended sediment and salinity.

Ground Water: A review of the US Geological Survey Ground Water Atlas of the United States (Topper et al., 2003) was done to assess ground water resources at the location of the proposed action. Information presented in Topper et al. (2003) indicates the extent of the Mesaverde aquifer encompasses the area south of Rangely, CO. Surface geology at the proposed location is Tertiary aged claystone, shale and sandstones of the Wasatch formation (Tweto, 1979). The Wasatch Formation has an approximate thickness of between 1,000 and 4,000 feet. Hydraulic conductivity from drill-stem tests in the Wasatch Formation range from 0.004 to 1.57 ft/day and specific capacity is estimated to range from 0.03 to 9.1 ft/day (Topper et al., 2003). Quaternary alluvial and colluvial deposits in Park Canyon and Evacuation Creek may occur as localized shallow aquifers. No springs or flowing water wells were identified within 2 miles of the proposed location.

*Environmental Consequences of the Proposed Action:* Surface Water: Further use of existing access roads, construction/upgrades of new access roads, and construction of well pads will increase soil exposure to erosional processes. Heavy equipment use will destroy any existing vegetation and increase compaction. Increased compaction combined with reduced vegetation will further decrease infiltration rates and elevate erosive potential due to runoff (overland flows) and raindrop impact during storm events. Elevated erosion resulting from the proposed actions will increase sedimentation and salt loading in Park Canyon, Evacuation Creek, the White River, and eventually the Colorado River reducing overall water quality. Given the low permeability rates of the affected soils, leaks or spills of environmentally unfriendly substances are likely to be carried down gradient as runoff and could potentially deteriorate surface water quality.

Ground Water: In the event of any leaks or spills, local ground water quality may be adversely impacted as runoff could carry contaminants down gradient to localized alluvial/colluvial aquifers. Potential for ground water contamination increases if fractures in confining units are formed. Hydraulic conductivity increases exponentially along fracture zones resulting in rapid transport of fluids/contaminants in these areas. Storage or surface disposal methods for produced water would also elevate potential for contaminating ground water.

Construction of well pads and new access roads will likely alter natural drainage patterns which will also alter natural ground water recharge in the affected areas. Alterations to natural groundwater recharge may reduce flows in perennial surface waters.

*Environmental Consequences of the No Action Alternative: None*

*Mitigation:* The operator will be responsible for complying with all local, state, and federal water quality regulations (such as but not limited to Phase I Storm Water Permit, Army Corps Section 404 permit coverage, and Industrial Wastewater/Produced Water Permits).

Surface Water: It is recommended that all surface disturbing activities strictly adhere to “Gold Book” fourth edition surface operating standards for oil and gas exploration and development (copies of the “Gold Book” fourth edition can be obtained at the WRFO). The operator will consult with the State of Colorado Water Quality Control Division regarding Stormwater Discharge Permits prior to commencing construction activities. Construction activities that disturb 5 acres or greater require a Phase I Stormwater Discharge Permit while construction activities that disturb between 1 and 5 acres may require a Phase II Stormwater Discharge Permit. Written documentation to the BLM Authorized Officer is required within 30 days of the APD approval date to indicate that appropriate permits have been obtained or are not required by the permitting agency. Written documentation may be a copy of the Stormwater Discharge Permit, a Certification Number, or an official letter response from the State Water Quality Control Division stating that a permit is not required for the activities in question. As a condition of the permit, a Stormwater Management Plan (SWMP) would be developed showing how Best Management Practices (BMPs) are to be used to control runoff and sediment transport. The applicant is required to have a copy of the SWMP on file with the Meeker Field Office and to implement the BMPs in that plan as on-site conditions warrant. For further information contact Nate Dieterich, WRFO Hydrologist at 970-878-3831 or [Nathan\\_Dieterich@blm.gov](mailto:Nathan_Dieterich@blm.gov). Appropriate documents may be sent via electronic mail, faxed (970-878-3805), or mailed to Nate Dieterich at the above address.

The operator will consult with the US Army Corps of Engineers to obtain approval prior to discharging fill material into waters of the US in accordance with Section 404 of the Clean Water Act. Waters of the US are defined in 33 CFR Section 328.3. Written documentation to the BLM Authorized Officer is required within 45 days of the APD approval date to indicate that the US Army Corps of Engineers has been notified prior to construction or that 404 Permits have been obtained or are not required by the permitting agency. Written documentation may be a copy of the Pre-Construction Notification (PCN) Form or an official verification letter from the US Army Corps of Engineers to the operator regarding the activities in question. For further information contact Nate Dieterich, WRFO Hydrologist at 970-878-3831 or [Nathan\\_Dieterich@blm.gov](mailto:Nathan_Dieterich@blm.gov). Appropriate documents may be sent via electronic mail, faxed (970-878-3805), or mailed to Nate Dieterich at the above address.

To mitigate additional soil erosion at the well pad and potential increased sediment and salt loading to surface waters, interim reclamation is suggested once drilling is completed. To allow optimal opportunity for interim reclamation of well pads, all tanks and production facilities will be situated on the access road side of the well pad (unless otherwise approved by the BLM). Interim reclamation of well pads will commence as follows:

1. Stockpiled topsoil and spoil piles will be separated to prevent mixing during reclamation efforts.

2. Stockpiled topsoil segregated from spoil piles will be replaced during reclamation in its respective original position (last out, first in) to minimize mixing of soil horizons.
3. Stockpiled soils (spoil and topsoil) will be pulled back over all disturbed surfaces outside the anchors and brought to near pre-construction contours.
4. The operator will ensure stockpiled topsoil is evenly distributed over the **top** of spoil used in re-contouring efforts.
5. The recontoured area will be seeded with an approved seed mixture and all slopes exceeding 5 % should be covered with wildlife friendly biodegradable fabrics (such as but not limited to Jute blankets, Curlex, etc) to provide additional protection to topsoil and help retain soil moisture.
6. Following seeding and placement of biodegradable fabrics, woody debris cleared during initial construction should be pulled back over the recontoured area to act as flow deflectors and sediment traps. Woody debris should be evenly distributed over the entire portion of the reclaimed area and will not account for more than 20% of total ground cover.
7. To eliminate livestock utilization of reclaimed areas prior to successful reclamation, a 4-strand BLM Type-D barbed wire fence with braced wooden corners will be constructed around all reclaimed portions of the well pad including cut and fill slopes following placement of woody debris.

Ground Water: Shallow aquifers shall be protected from hydrofracturing and the production of oil and gas by installation and cementing of surface and intermediate casing. Any groundwater produced from the Fort Union or Mesaverde Formations will be hauled off and disposed of due to poor water quality and therefore preventing adverse impacts to valuable surface and ground water resources. Environmentally unfriendly substances (e.g. diesel) must not be allowed to contact soils. The use of spill-guards (or equivalent spill prevention equipment) under and around pumping equipment and frac-tanks will be used to intercept such contaminants prior to infiltrating soils and contaminating ground water. Furthermore, *all pits shall be lined* and all wastes associated with construction and drilling (including produced water) will be properly treated and disposed of. All access roads and well pads will be designed to “Gold Book” standards (as outlined above) to maintain natural surface water drainage and ground water recharge patterns.

*Finding on the Public Land Health Standard for water quality:* West Evacuation Creek (Stream segment 22 of the White River Basin) has been identified on the State’s 303(d) List of Water-Quality-Limited streams requiring TMDLS and is currently not meeting standards (sediment). The use of BMPs during and after construction activities will minimize the potential for increased sedimentation to West Evacuation Creek. Thus, the proposed action will not improve or deteriorate current water quality in West Evacuation Creek. West Evacuation Creek will continue to not meet standards for sediment impairments.

**CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No ACEC’s, flood plains, wetland/aquatic or riparian communities, prime and unique farmlands, Wilderness, Wild and Scenic Rivers, or threatened, endangered or sensitive plants exist within

the area affected by the proposed action. For riparian/wetland/aquatic resources and threatened, endangered and sensitive plant species, the Public Land Health Standards are not applicable since neither the proposed nor the no-action alternative would have any influence on riparian/wetland/aquatic communities or populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

**NON-CRITICAL ELEMENTS**

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

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

*Affected Environment:* The following data is a product of an order III soil survey conducted by the Natural Resources Conservation Service (NRCS) in Rio Blanco County, CO. Table 1 highlights important soil characteristics. A complete summary of this information can be found at the White River Field Office.

**Table 1:**

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
64	Piceance fine sandy loam	5-15%	Rolling Loam	<2	Medium	Moderate to high	20-40
74	Rentsac-Moyerson-Rock Outcrop complex	5-65%	PJ Woodlands/Clayey Slopes	<2	Medium	Moderate to very high	10-20
104	Yamac Loam	2-15%	Rolling Loam	<2	Medium	Slight to moderate	>60

The entire pad location occurs on soil unit 74 which is defined in table 1 as having medium runoff rates. The erosive potential of soils with medium off rates varies from moderate to very high. In areas with substantial relief, rapid run off will likely result in increased erosive potential. Soil texture, slope aspect, vegetation type and density will also influence erosive potential of soils within the project area. The proposed actions will all occur on relatively flat gradients and no CSU-1 “fragile” or “saline” soils will be encountered.

*Environmental Consequences of the Proposed Action:* Clearing and grading of the well pad and access road will remove protective vegetative cover from the affected soils accelerating the erosion process. Grading, trenching, and backfilling activities could cause mixing of the soil horizons and could result in reduced soil fertility reducing revegetation potential. Water erosion of soils associated with construction activities will likely result in a net loss of valuable topsoil by sheet, rill, and gully erosion. Eroded topsoil and subsoil may increase sedimentation to

surface waters down gradient from disturbed areas. Increased offsite sediment transport could adversely affect water quality and aquatic life on adjacent BLM administered lands.

Any leaks or spills of environmentally unfriendly substances (e.g. diesel fuel) could compromise the productivity of affected soils. Decreased soil productivity will hinder reclamation efforts and leave soils further exposed to erosional processes.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

*Finding on the Public Land Health Standard for upland soils:* At the present time, soils in the vicinity of the proposed action meet soil health standards and exhibit infiltration and permeability rates that are appropriate to soil type, landform, climate, and geologic processes. With all suggested mitigation, implementation of the proposed actions should not change this status.

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

*Affected Environment:* Two vegetation types, all on private lands, would be affected these are the rolling loam-sagebrush site and the Rentsac-pinyon/juniper woodland. Predominate species on the sagebrush site are Wyoming big sagebrush, winterfat, western wheatgrass and various other grasses and forbs. Predominate species on the woodland site are pinyon and Utah juniper. On the woodland site the understory is generally very sparse. On both these sites the vegetation will be removed and soils disturbed.

*Environmental Consequences of the Proposed Action:* On both these sites the vegetation will be removed and soils disturbed. Following proper reclamation the rolling loam site should be established in approximately 5 years. The woodland site would take longer to establish with saplings occurring in approximately 30 years and a mature woodland forming in 200-300 years.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* None

*Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial):* The only BLM crossed in this project is on a well used road on which no additional upgrading is needed. This road is part of the Dragon Trail which provided access between Rangely and Dragon Utah. It is not expected that this road will be reclaimed in the near future, so no determination of plant health standard is needed.

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

*Affected Environment:* The project area is composed of a complex interspersion of sagebrush basins and woodland stands. The entire area is considered general big game winter range (generally occupied from October through May). Non-game wildlife using this area are typical and widely distributed in extensive like habitats across the Resource Area and northwest Colorado; there are no narrowly endemic or highly specialized species known to inhabit those lands potentially influenced by this action. In those portions of the project area removed from existing forms of disturbance, the proposed action would directly affect about 2 acres of open-canopied, low elevation pinyon-juniper woodlands that are part of a 10-acre stand. Stand size and conditions are not conducive to the support of raptor nesting activity and the likelihood of finding a raptor nest in this stand is remote.

*Environmental Consequences of the Proposed Action:* The proposed action would have virtually no influence on BLM-administered surface resources, but represents an incremental expansion of industrial development on these extensive, privately-owned big game winter ranges. Because this well involves lands that are privately controlled, additive avoidance-related effects (i.e., behavioral avoidance and habitat disuse; increased energetic demands) during the period of big game occupation would be expected to be relatively minor. The long-term occupation of about 4 acres of foraging area (pad and road) and temporary reductions in woody shrub growth on an additional 9 acres for the pipeline would have minimal and localized influence on big game forage availability. Final pipeline reclamation and interim reclamation on the well pad would help offset herbaceous forage and cover losses and accelerate the reestablishment of woody forage and cover components for all resident wildlife.

*Environmental Consequences of the No Action Alternative:* There would be no action authorized that would have potential to affect resident wildlife populations or associated habitat.

*Mitigation:* None.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Aquatic): On a landscape scale, the project area meets the public land health standards for terrestrial animal communities. The proposed action is considered an incremental addition to those lands dedicated to mineral development, but would not detract measurably from continued meeting of the land health standard at the landscape scale.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management			X

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Forest Management			X
Geology and Minerals			X
Hydrology/Water Rights	X		
Law Enforcement		X	
Noise		X	
Paleontology			X
Rangeland Management		X	
Realty Authorizations			X
Recreation		X	
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

## FIRE MANAGEMENT

*Affected Environment:* Well 19-1 involves approximately 0.45 miles of new road construction/improvement that traverses through mature juniper woodlands. The pad likewise is composed of juniper woodlands, some of which consists of old growth juniper totaling 1.21 acres.

The National Fire Plan calls for “firefighter and public safety” to be the highest priority for all fire management activities. In the pinion, juniper, and brush types common on the White River Field Office area, roads and other man-made openings are commonly used as fuel breaks or barriers to control the spread of both wildland and prescribed fires. By reducing the activity fuels created from this proposal, future fire management efforts in this area should be safer for those involved and more effective.

*Environmental Consequences of the Proposed Action:* Due to the existing tree cover of juniper, there will be a need for the operator to clear some of these trees. If not adequately treated, these trees will result in elevated hazardous fuels conditions and remain on-site for many years. These accumulations of dead material are very receptive to fire brands and spotting from wind driven fires and can greatly accelerate the rate of spread of the fire front. The road associated with this project may be used by the general public for a variety of uses, including access for fire wood gathering, hunting and other dispersed recreational activities. Increased public use of an area will nearly always result in an increased potential for man-caused wildland fires. If not treated the slash and woody debris will create an elevated hazardous dead fuel loading which could pose significant control problems in the event of a wildfire. Additionally there would be greater threat to Bayless personnel and fire suppression personnel.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* BLM recommends the following two options for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively breakdown the woody fuel and scatter the debris thereby eliminating any hazardous fuel load adjacent to the new road and well pad. The other option would be to cut trees and have them removed for firewood, posts, or other products. The branches and tops should be lopped and scattered to a depth of 24 inches or less. If the boles of the trees are left they should be evenly incorporated in the interim reclamation to provide erosion protection and aid in seedling establishment. However, that they not be piled in large "jackpots" that would exceed 5 tons/acres.

## **FOREST MANAGEMENT**

*Affected Environment:* The well pad and portions of the access road will be through pinyon/juniper woodlands. As these woodlands are on private lands no surveys have been conducted.

*Environmental Consequences of the Proposed Action:* There would be a loss of approximately 2 acres of pinyon/juniper woodland, all on private lands. The disturbed area would revert back to a woodland type over time with a mature stand developing in 200-300 years.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* See Fire Management

## **GEOLOGY AND MINERALS**

*Affected Environment:* The surface geologic formation of the proposed well is Wasatch. The targeted zone for these wells is in the Morrison. The well is located on federal oil and gas leases COC-066380. During drilling potential water, coal, oil and gas zones will be encountered from surface to the targeted zone.

*Environmental Consequences of the Proposed Action:* The proposed cementing procedure for the wells isolates the formations and will prevent the migration of gas, water, and oil between formations. Coal zones located in the Mesaverde will also be isolated during this procedure. Development of these wells will deplete the natural gas hydrocarbon resources in the targeted formation

*Environmental Consequences of the No Action Alternative:* The oil and gas resources of the targeted zones would not be fully developed.

*Mitigation:* None

## PALEONTOLOGY

*Affected Environment:* The proposed well pad location is located in an area generally mapped as the Wasatch Formation (Tweto 1979) which the BLM, WRFO has classified as a Condition I formation, meaning it is known to produce scientifically important fossil resources.

The access road is mostly underlain by the Upper Mesa Verde with a final portion near the well pad in section 19 traversing an area of the Wasatch Formation (Tweto 1979). The BLM, WRFO has classified both formations as Condition I formations meaning that they are both known to produce scientifically important fossil resources.

*Environmental Consequences of the Proposed Action:* If it becomes necessary to excavate into any of the underlying rock formation to construct the access road, level the well pad or excavate the reserve/blooiie pit there is the potential to impact scientifically important fossil resources.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to fossil resources under the No Action Alternative.

*Mitigation:* 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. If it becomes necessary to excavate into the underlying rock formations at any time to construct the access road, level the well pad or excavate the reserve/blooiie pit a paleontological monitor shall be present prior to the initiation of any excavation into the underlying rock.

3. All exposures of rock outcrop on the access road and well pad shall be examined by an approved paleontologist and a report detailing the results of the inventory with any mitigation, as needed, shall be submitted to the Authorized Officer prior to the initiation of the project.

## REALTY AUTHORIZATIONS

*Affected Environment:* The well pad and the majority of the access road fall on private surface lands. Main access will be from Rangely via Rio Blanco County (RBC) Road 23. The two segments that fall within BLM managed lands are in T. 2 S., R. 103 W., sections 15, 21, and 22. This road has been authorized as access roads COC37801 (EnCana), COC39324 (EnCana), COC 56509 (Anschutz), and COC 57516 (Merrion). There are EnCana and Questar pipelines as well as a Moon Lake electric transmission line located nearby on public lands and additional linear facilities are located on the private lands.

*Environmental Consequences of the Proposed Action:* Access through public lands must be authorized by a right-of-way grant which would be issued as an amendment to the existing Robert L Bayless Producer LLC grant COC68238. If a pipeline is needed, an application and authorization from the provider would be required. Approximately 2413 feet of road will be authorized.

*Environmental Consequences of the No Action Alternative:* If the well were not permitted, no additional impacts would occur.

*Mitigation:* The holder should coordinate with other ROW holders to provide appropriate road maintenance. Colorado One Call should be implemented if there is any ground disturbance.

## VISUAL RESOURCES

*Affected Environment:* The proposed action would be located on private surface near BLM surface that has a VRM III classification. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

*Environmental Consequences of the Proposed Action:* The proposed action would be located on private surface and not subject to the VRM standards that apply to BLM lands. The color Juniper Green as discussed at the on site would be the preferred color if the action were located on BLM.

*Environmental Consequences of the No Action Alternative:* There would be no environmental consequences.

*Mitigation:* None

**CUMULATIVE IMPACTS SUMMARY:** Cumulative impacts from oil and gas development were analyzed in the White River Resource Area Proposed Resource Management Plan/Final

Environmental Impact Statement (PRMP/FEIS) completed in June 1996. Current development, including the proposed action, has not exceeded the cumulative impacts from the foreseeable development analyzed in the PRMP/FEIS.

**REFERENCES CITED:**

Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Commission (WQCC), 2005a. Regulation No. 37 Classifications and Numeric Standards for Lower Colorado River Basin. Amended December 12, 2005 and Effective March 2, 2006.

CDPHE-WQCC, 2006b. "Status of Water Quality in Colorado – 2006, The Update to the 2002 and 2004 305(b) Report," April 2006.

CDPHE-WQCC, 2006c. "Regulation No. 93, 2006 Section 303(d) List Water-Quality-Limited Segments Requiring TMDLs," effective April 30.

CDPHE-WQCC, 2006d. "Regulation No. 94, Colorado's Monitoring and Evaluation List," effective April 30.

Conner, Carl E. and Barbara J. Davenport  
2006 Class III Cultural Resource Inventory Report for the Proposed Hell's Hole #19-1 and Related Access Road (2.76 mile) in Rio Blanco County, Colorado, for Robert L. Bayless, Producer LLC. Grand River Institute, Grand Junction, Colorado.

Topper, R., K.L. Spray, W. H. Bellis, J.L. Hamilton, and P.E. Barkmann. 2003. Ground Water Atlas of Colorado. Colo. Geol. Surv. Special Pub. 53.

Tweto, Odgen  
1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia

**PERSONS / AGENCIES CONSULTED:** None

**INTERDISCIPLINARY REVIEW:**

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>
Nate Dieterich	Hydrologist	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archeologist	Cultural Resources Paleontological Resources
Robert Fowler	Rangeland Management Specialist	Invasive, Non-Native Species
Ed Hollowed	Wildlife Biologist	Migratory Birds
Ed Hollowed	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species
Melissa Kindall	Hazmat Collateral	Wastes, Hazardous or Solid
Nate Dieterich	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Ed Hollowed	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Nate Dieterich	Hydrologist	Soils
Robert Fowler	Rangeland Management Specialist	Vegetation
Ed Hollowed	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Rangeland Management Specialist	Rangeland Management
Linda Jones	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Keith Whitaker	Natural Resource Specialist	Visual Resources
Melissa Kindall	Rangeland Technician	Wild Horses

# **Finding of No Significant Impact/Decision Record (FONSI/DR)**

## **CO-110-2006-132-EA**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) 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/RATIONALE:** It is my decision to approve the proposed action, with the addition of the mitigation measures listed below. This development, with mitigation, is consistent with the decisions in the White River ROD/RMP, and environmental impacts will be minimal.

### **MITIGATION MEASURES:**

- 1. No new blading is permitted on the historic trail section except at the point where the proposed access road intersects the county road (historic trail segment).**
2. The operator will be responsible for complying with all local, state, and federal air quality regulations as well as providing documentation to the BLM that they have done so. To minimize production of fugitive particulate matter (fugitive dust) from BLM administered access roads, vehicle speeds must not exceed 15 mph *or* dust plume must not be visible at appropriate designated speeds for road design. In addition, the application of a BLM approved dust suppressant (e.g. water or chemical stabilization methods) will be required on BLM administered access roads during dry periods when dust plumes are visible at speeds less than or equal to 15 mph.
3. Construction equipment will be maintained in good operating condition to ensure that engines are running efficiently. Vehicles and construction equipment with emission controls will also be maintained to ensure effective pollutant emission reductions.
4. The operator 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. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places
  - the mitigation measures the operator will likely have to undertake before the site can be

used (assuming in situ preservation is not necessary)

- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

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

6. No new blading is permitted on the historic trail section except at the point where the proposed access road intersects the county road (historic trail segment).

7. The operator is responsible for monitoring the public lands associated with this action for outbreaks of noxious weeds and to control these outbreaks in accordance with the White River ROD/RMP of 1997.

8. It will be the responsibility of the operator to effectively preclude migratory bird access to, or contact with, reserve pit contents that possess toxic properties (i.e., through ingestion or exposure) or have potential to compromise the water-repellent properties of birds' plumage. Exclusion methods may include netting, the use of "bird-balls", or other alternative methods that effectively eliminate migratory bird contact with pit contents and meet BLM's approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to eliminate migratory bird use two weeks prior to initiation of drilling activities. The BLM-approved method will be applied within 24 hours after drilling activities have begun. All lethal and non-lethal events that involve migratory birds will be reported to a White River Field Office Petroleum Engineer Technician immediately.

9. The applicant should be required to collect and properly dispose of any solid waste generated by the proposed actions.

10. The operator will be responsible for complying with all local, state, and federal water quality regulations (such as but not limited to Phase I Storm Water Permit, Army Corps Section 404 permit coverage, and Industrial Wastewater/Produced Water Permits).

11. Surface Water: It is recommended that all surface disturbing activities strictly adhere to "Gold Book" fourth edition surface operating standards for oil and gas exploration and development (copies of the "Gold Book" fourth edition can be obtained at the WRFO). The operator will consult with the State of Colorado Water Quality Control Division regarding

Stormwater Discharge Permits prior to commencing construction activities. Construction activities that disturb 5 acres or greater require a Phase I Stormwater Discharge Permit while construction activities that disturb between 1 and 5 acres may require a Phase II Stormwater Discharge Permit. Written documentation to the BLM Authorized Officer is required within 30 days of the APD approval date to indicate that appropriate permits have been obtained or are not required by the permitting agency. Written documentation may be a copy of the Stormwater Discharge Permit, a Certification Number, or an official letter response from the State Water Quality Control Division stating that a permit is not required for the activities in question. As a condition of the permit, a Stormwater Management Plan (SWMP) would be developed showing how Best Management Practices (BMPs) are to be used to control runoff and sediment transport. The applicant is required to have a copy of the SWMP on file with the Meeker Field Office and to implement the BMPs in that plan as on-site conditions warrant. For further information contact Nate Dieterich, WRFO Hydrologist at 970-878-3831 or [Nathan\\_Dieterich@blm.gov](mailto:Nathan_Dieterich@blm.gov). Appropriate documents may be sent via electronic mail, faxed (970-878-3805), or mailed to Nate Dieterich at the above address.

12. Ground Water: Shallow aquifers shall be protected from hydrofracturing and the production of oil and gas by installation and cementing of surface and intermediate casing. Any groundwater produced from the Fort Union or Mesaverde Formations will be hauled off and disposed of due to poor water quality and therefore preventing adverse impacts to valuable surface and ground water resources. Environmentally unfriendly substances (e.g. diesel) must not be allowed to contact soils. The use of spill-guards (or equivalent spill prevention equipment) under and around pumping equipment and frac-tanks will be used to intercept such contaminants prior to infiltrating soils and contaminating ground water. Furthermore, *all pits shall be lined* and all wastes associated with construction and drilling (including produced water) will be properly treated and disposed of. All access roads and well pads will be designed to “Gold Book” standards (as outlined above) to maintain natural surface water drainage and ground water recharge patterns.

13. The operator will consult with the US Army Corps of Engineers to obtain approval prior to discharging fill material into waters of the US in accordance with Section 404 of the Clean Water Act. Waters of the US are defined in 33 CFR Section 328.3. Written documentation to the BLM Authorized Officer is required within 45 days of the APD approval date to indicate that the US Army Corps of Engineers has been notified prior to construction or that 404 Permits have been obtained or are not required by the permitting agency. Written documentation may be a copy of the Pre-Construction Notification (PCN) Form or an official verification letter from the US Army Corps of Engineers to the operator regarding the activities in question. For further information contact Nate Dieterich, WRFO Hydrologist at 970-878-3831 or [Nathan\\_Dieterich@blm.gov](mailto:Nathan_Dieterich@blm.gov). Appropriate documents may be sent via electronic mail, faxed (970-878-3805), or mailed to Nate Dieterich at the above address.

14. To mitigate additional soil erosion at the well pad and potential increased sediment and salt loading to surface waters, interim reclamation is suggested once drilling is completed. To allow optimal opportunity for interim reclamation of well pads, all tanks and production facilities will be situated on the access road side of the well pad (unless otherwise approved by the BLM). Interim reclamation of well pads will commence as follows:

- Stockpiled topsoil and spoil piles will be separated to prevent mixing during reclamation efforts.
- Stockpiled topsoil segregated from spoil piles will be replaced during reclamation in its respective original position (last out, first in) to minimize mixing of soil horizons.
- Stockpiled soils (spoil and topsoil) will be pulled back over all disturbed surfaces outside the anchors and brought to near pre-construction contours.
- The operator will ensure stockpiled topsoil is evenly distributed over the **top** of spoil used in re-contouring efforts.
- The recontoured area will be seeded with an approved seed mixture and all slopes exceeding 5 % should be covered with wildlife friendly biodegradable fabrics (such as but not limited to Jute blankets, Curlex, etc) to provide additional protection to topsoil and help retain soil moisture.
- Following seeding and placement of biodegradable fabrics, woody debris cleared during initial construction should be pulled back over the recontoured area to act as flow deflectors and sediment traps. Woody debris should be evenly distributed over the entire portion of the reclaimed area and will not account for more than 20% of total ground cover.
- To eliminate livestock utilization of reclaimed areas prior to successful reclamation, a 4-strand BLM Type-D barbed wire fence with braced wooden corners will be constructed around all reclaimed portions of the well pad including cut and fill slopes following placement of woody debris.

15. BLM recommends the following two options for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively breakdown the woody fuel and scatter the debris thereby eliminating any hazardous fuel load adjacent to the new road and well pad. The other option would be to cut trees and have them removed for firewood, posts, or other products. The branches and tops should be lopped and scattered to a depth of 24 inches or less. If the boles of the trees are left they should be evenly incorporated in the interim reclamation to provide erosion protection and aid in seedling establishment. However, that they not be piled in large "jackpots" that would exceed 5 tons/acres.

16. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO).

Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
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the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

17. If it becomes necessary to excavate into the underlying rock formations at any time to construct the access road, level the well pad or excavate the reserve/blooiie pit a paleontological monitor shall be present prior to the initiation of any excavation into the underlying rock.

18. All exposures of rock outcrop on the access road and well pad shall be examined by an approved paleontologist and a report detailing the results of the inventory with any mitigation, as needed, shall be submitted to the Authorized Officer prior to the initiation of the project.

19. The holder should coordinate with other ROW holders to provide appropriate road maintenance. Colorado One Call should be implemented if there is any ground disturbance.

**NAME OF PREPARER:** Tamara Meagley 7-14-06

**NAME OF ENVIRONMENTAL COORDINATOR:** Caroline Hollowed

**SIGNATURE OF AUTHORIZED OFFICIAL:** Manson Henderson for Kurt Walter  
Field Manager

**DATE SIGNED:** 7/19/06

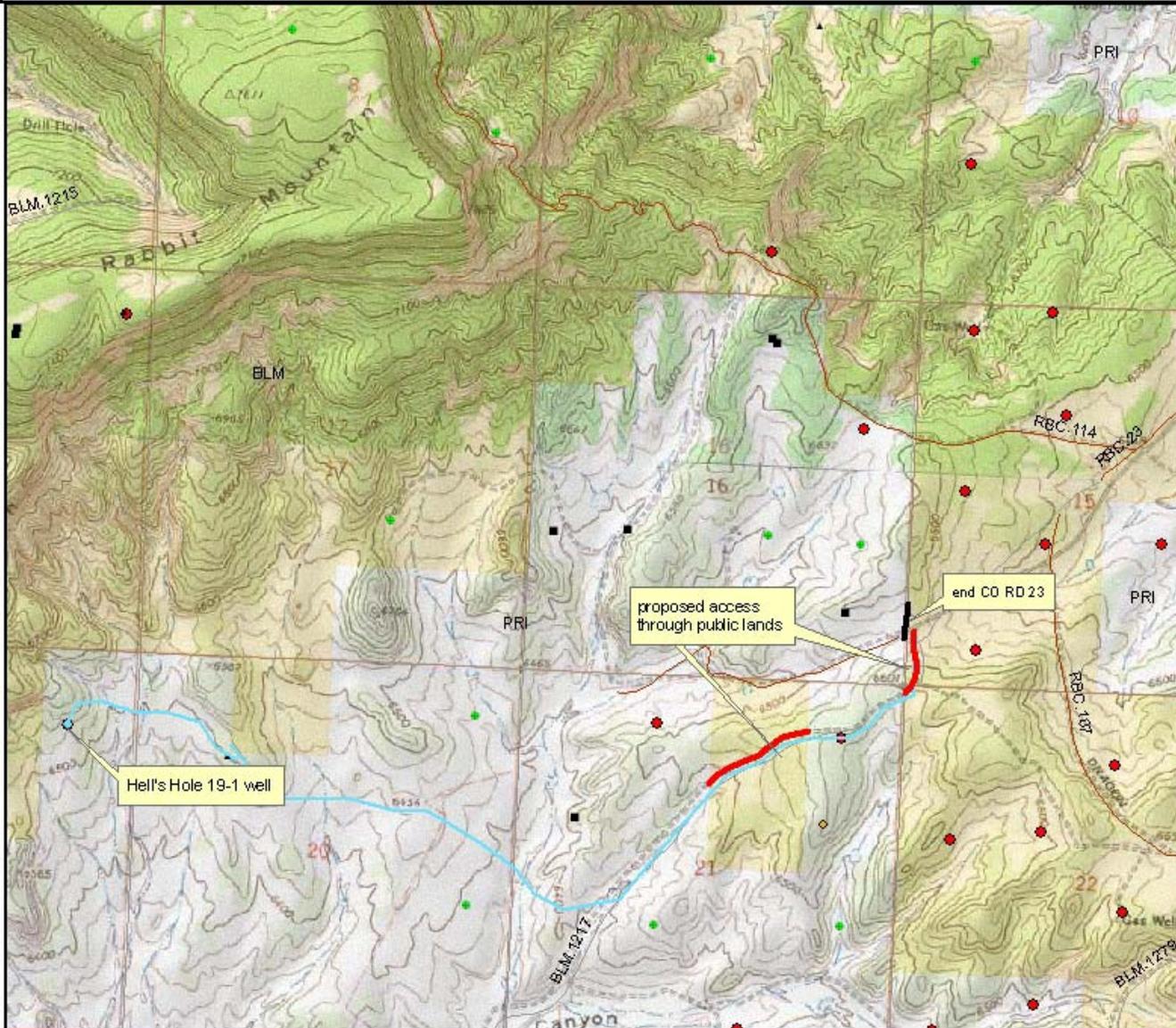
**ATTACHMENTS:** Exhibit A - ROW COC 68238  
Location map of the proposed action



**ROBERT LA BAYLESS PRODUCER, LLC**  
**CO-110-06-132-EA**      **ROW COC68238**

**EXHIBIT A**

**T. 2 S., R. 103 W.,  
 sec 15, 21, and 22**



**LEGEND**

Major roads

RD\_CODE

Highway

County

NPS

Forest service

BLM

Sections

BLM

CDW

FO R

NPS

PRI

STA

Abandoned Location

Dry & Abandoned

DM

Injection

Piggings Abandoned

Producing

Shut in

Temp. Abandoned

Unknown

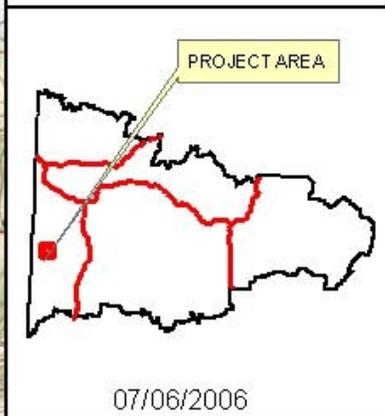
Verbal Piggings

Waiting on Completion

XX

Projects: point

1:24,000



# Location Map of the Proposed Action CO-110-2006-132-EA

