

**U.S. Department of the Interior  
Bureau of Land Management  
Glenwood Springs Field Office  
50629 Highway 6 & 24  
PO Box 1009  
Glenwood Springs, CO 81602**

**ENVIRONMENTAL ASSESSMENT**

NUMBER: CO-140-2005-003 EA.

CASEFILE NUMBER: COC-60234, COC 44963.

PROJECT NAME: Application for Permit to Drill:

LEGAL DESCRIPTION:

Red Point 43-30: 1980' FSL x 666' FEL, NESE sec 30 T5S R95W.

Red Point 43-25: 1804' FSL x 603' FEL, NESE, sec 25 T5S R96W.

Red Point 11-23: (RPE422-23-596):846' FNL x 670' FWL, NWNW sec 23 T5S R96W.

Red Point 43-26 (RP542-26-596):

Surface location; 1843' FNL x 743' FEL SENE, sec 26 T5S R96W.

Bottom-hole, 2430' FNL x 660' FEL Sec 26 T5S R96W.

Red Point 43-26 (RP343-26-596):

Surface Location; 1854' FNL x 753' FEL SENE, sec 26 T5S R96W.

Bottom-hole; 2125' FSL x 660' FEL Sec 26 T5S R96W.

APPLICANT: Williams Production RMT.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

**Proposed Action:**

Williams Production RMT proposes to drill the above four locations in to the above described federal leases. The surface is owned by Encana. Each location will have one initial well but the pads are designed for an additional 4 wells. Average surface disturbance is less than 3 acres. The proposed Red Point 43-26 well will require approximately 300' of new road. The 43-30, 43-25, and 11-23 are along existing roads. All pipelines will be placed in the existing roadways. Vegetation ranges from rocky at the 43-30, to abandoned farmland at the 43-25, to sagebrush at the 11-23, to riparian at the 43-26.

Two directional wells (RP343-26-596 and RP542-26-596) are planned from the proposed Red Point 43-26 location

**No Action Alternative:** The proposed action involves federal subsurface minerals that are encumbered with federal oil and gas leases, which grants the lessee a right to explore and develop the lease. The no action constitutes denial of the proposed action and could be used to prevent unnecessary and undue degradation. Absent a non-discretionary statutory prohibition against drilling, BLM cannot deny the right to drill and develop the leasehold. Only Congress can completely prohibit development activities (Western Colorado Congress, 130 IBLA 244, 248 (1994), citing *Union Oil Co. of California v. Morton*, 512 F.2d 743, 750-51 (9<sup>th</sup> Cir. 1975)). For this reason, the No Action alternative has been considered but eliminated.

**NEED FOR THE ACTION:** The purpose and need is to authorize the Application for Permit to Drill (APD) to satisfy federal lease obligations that will in turn provide natural gas for commercial marketing to the public.

**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:** Glenwood Springs Resource Management Plan.

**Date Approved:** Amended in November 1991 - Oil and Gas Leasing and Development - Final Supplemental Environmental Impact Statement; amended Nov. 1996 - Colorado Standards and Guidelines; amended in August 1997 - Castle Peak Travel Management Plan; amended in March 1999 - Oil and Gas Leasing & Development Final Supplemental Environmental Impact Statement; amended in November 1999 - Red Hill Plan Amendment; and amended in September 2002 – Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance.

**Decision Number/Page:** The proposed action is located on leases in area designated Open for oil and gas leasing in 1984 in the Glenwood Springs Resource Management Plan (page 14 and map 4).

**Decision Language:** The FSEIS described the environmental effects, including the cumulative effects, of oil and gas development, but did not authorize the construction of any individual well locations. This EA is more site-specific than the FSEIS and includes the results of the on-the-ground inventories for cultural resources and special status plant and animal species, if appropriate. This EA tiers to both the DSEIS and FSEIS and the information in the FSEIS is incorporated by reference. The EA will focus on specific issues and will not deal with the larger regional issues addressed in the FSEIS. The proposed action has been reviewed for and is in compliance with the FSEIS (43 CFR 1610.5, BLM 1617.3) - Page or Decision Number: Pages 1-5, Record of Decision dated March 24, 1999.

**Standards for Public Land Health:** In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. The Glenwood Springs Field Office is in the ongoing process of completing Land Health Assessments on a landscape basis. The fieldwork for the Rifle West Land Health Assessment, which encompasses the area of the proposed action, was completed in 2004. Initial results indicate that this portion of the landscape is meeting the land health standards but with problems related to cheatgrass dominating much of

the understory vegetation. However, no formal determination on conformance with the Standards will be made until the Final Land Health Assessment and Determination Document is completed in spring 2005. Based on the findings of the assessment, the authorized officer may take appropriate action to achieve conformance with the standards or implement further mitigating measures on future actions to maintain or prevent a further decline in land health.

The five 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, the impact analysis must address whether the proposed action or any alternatives being analyzed would result in impacts that would maintain, improve, or deteriorate land health conditions for that specific parameter. These analyses are located in specific elements listed below:

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

CRITICAL ELEMENTS

AIR QUALITY

**Affected Environment:** The proposed action area (Garfield County) is described as an attainment area under NAAQS (National Ambient Air Quality Standards). An attainment area is an area where ambient air pollution amounts are determined to be below NAAQS standards.

**Environmental Consequences/Mitigation:** Activities described in the proposed action, would result in localized short-term increases in vehicle emissions and dust. These effects would be well below applicable ambient air quality standards, although dust mitigation is required as outlined below.

- To mitigate dust created from well-pad construction and completion, dust abatement via watering and/or application of various dust agents, surfactants and road surfacing material is required during well-pad construction and completion activities.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

**Affected Environment:** There are no Areas of Critical Environmental Concern within the proposed project area.

CULTURAL RESOURCES

**Affected Environment:** A cultural resource inventory was conducted of the proposed well location's 11-23 and 43-26 by Grand River Consultants (GSFO# 1105-1). The other two well locations were within a previous inventory (GSFO#1285A) and were field checked by the GSFO archaeologist during an onsite. No historic properties were identified during the inventories. As currently planned this project will have No Effect to any known cultural resources. Formal

consultation with the Colorado State Historic Preservation Office (SHPO) was not initiated in accordance with the Colorado BLM/SHPO Protocol (1998) and National Protocol (1997).

No-Action Alternative: This alternative might have resulted in greater the protection of unknown cultural resources, other than this, impacts would be the same the proposed action.

Environmental Consequences/Mitigation: Indirect impacts from increased access and personnel could result in a range of impacts to unknown cultural resources from illegal collection to vandalism. The importance of the Education/Discovery Stipulation needs to be stressed to Williams Production RMT, EnCana and their subcontractors.

- The National Historic Preservation Act (NHPA) requires that if newly discovered cultural resources are identified during project implementation, work in that area must stop and the agency Authorized Officer notified immediately (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, activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice 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)). Further actions also require compliance under the provisions of NHPA and the Archaeological Resource Protection Act.

## ENVIRONMENTAL JUSTICE

Affected Environment: Review of 2001 data from US Census Bureau indicates the median annual income of Garfield County averages \$43,560 and is neither an impoverished or wealthy county. Median annual income of Eagle County averages \$51,578 and is not impoverished but is considered a wealthy county. U.S. Census Bureau data from July, 2002 shows the minority population of Garfield and Eagle County comprises less than 3 % of the total population<sup>1</sup>.

Garfield County		Eagle County	
Median Household Income		Median Household Income	
Estimate	90% Confidence Interval	Estimate	90% Confidence Interval
\$43,560	\$40,491 to \$46,613	\$51,578	\$47,958 to \$55,177

Environmental Consequences/Mitigation: The proposed action and alternatives are not expected to create a disproportionately high and adverse human health impact or environmental effect on minority or low-income populations within the area.

<sup>1</sup> Table CO-EST2002-ASRO-02-08-County Population Estimates by Race Alone and Hispanic or Latino Origin: July 1, 2002  
Source: Population Division, U.S. Census Bureau  
Release Date: September 18, 2003  
03

## FARMLANDS, PRIME AND UNIQUE

Affected Environment: The proposed action does not involve any prime or unique farmlands.

## FLOODPLAINS

Affected Environment: Although new road construction for well pad 43-26 would cross West Parachute Creek, the drainage does not necessarily support an active floodplain.

## INVASIVE, NON-NATIVE SPECIES

Affected Environment: The noxious weed, cheatgrass, is present on the 43-30 proposed well pad location and is a dominant component of the vegetation on the 11-23 well. A small amount of Canada thistle and houndstongue have been found on the 43-25 and 43-26 proposed locations.

Environmental Consequences/Mitigation: Surface-disturbing activities provide opportunities to introduce noxious weeds to new areas or to increase the coverage of noxious weeds where they already occur. Since noxious weeds already occur in the project area, the potential for their re-establishment following construction of the proposed pads and access roads is extremely high.

### Mitigation:

- In order to minimize the impact of noxious weeds and invasive species on the site, all disturbed areas not needed for immediate operation of the wells will be seeded with a mixture of native grasses and shrubs and/or desirable, nonnative forbs. A seed mix designed to reclaim the sites and deter establishment of noxious weeds is presented in the Vegetation section. The seed shall be certified free of noxious weeds. The project proponent shall adhere to the specified seed mix and will continue with reclamation activities, including additional reseeding if necessary, until interim reclamation measures are achieved. If the surface owner wishes to maintain irrigable pasture grasses on the old agricultural field at well site 43-25, a seed mix of pasture grasses may be utilized at that site.
- Given that cheatgrass is common on the proposed 11-23 well location and is widespread throughout the West Fork Parachute Creek drainage, it may not be possible to totally eliminate this noxious weed from the 11-23 location. A Condition of Approval is attached requiring the project proponent to promptly treat and control any noxious weeds that invade the disturbed areas. This will apply to all noxious weeds other than cheatgrass. In the case of cheatgrass, interim reclamation will be considered acceptable if cheatgrass and other undesirable vegetation is less than 5 percent of the cover if the adjacent vegetation is less than 50 percent undesirables and cheatgrass will be less than 50 percent if the adjacent vegetation is more than 50 percent undesirables (1999 DSEIS).

## MIGRATORY BIRDS

**Affected Environment:** The 4 proposed well pads would be located in a variety of vegetative communities including sagebrush, large mature riparian and abandoned irrigated agriculture field with mostly weedy invasive species. Given the diverse mix of vegetation in the area, the 4 well sites provide foraging and nesting habitat for a variety of migratory bird species. Several species listed on the U.S. Fish and Wildlife Service's Birds of Conservation Concern list may be present. Within the sagebrush habitats the sage sparrow may occur. Within the riparian habitats, Lewis's woodpecker and Bell's vireo may be present.

Numerous raptor nests including golden eagles are located in very close proximity to all 4 proposed surface locations. Many of the nests were first identified back in the early to mid 1980's during an intensive survey effort conducted by Bio-Resources. It is unknown how many of these nests are still active today or how many new nests may be in the area. In addition to the numerous nests, a variety of raptors likely perch, roost, and forage on and adjacent to the 4 well pad locations. The COC 44963 lease contains no raptor timing limitations. The COC 60234 lease contains a raptor NSO and timing limitation stipulation.

**Environmental Consequences/Mitigation:** The 4 proposed well pads would remove a total of approximately 12-acres of upland habitat. In addition, proposed new road construction would remove approximately .2-acres of mature old growth riparian habitat consisting of large cottonwood trees. If completed in a proper and timely fashion, interim reclamation could partially reduce some habitat losses. However, given periodic work-overs and reentry of well pads for placement of additional directional wells, vegetation at each site would have a hard time ever reaching anything but early seral condition, which would not provide adequate nesting habitat for many species. As such, proper and timely reclamation is more important for providing forage and habitat for insects, small rodents and mammals, and other avian food sources.

The loss of 12 acres of upland habitat will further fragment important habitats and reduce habitat patch size for migratory birds in the area. If vegetation removal is conducted during the spring nesting season, it is possible that migratory bird nests and/or eggs could be destroyed. Although impacts to individual birds could result, impacts at the species or population levels are not anticipated. Noise associated with construction and drilling and related traffic would likely temporarily displace native birds away from the area.

All 4 well pad locations are in very close proximity to several identified raptor nest sites. Assuming that these are active, then impacts would likely occur during pad construction, drilling, and completion activities. Nests could be destroyed, and noise and human presence could disrupt nesting activities if conducted during the nesting season. This could cause nest abandonment and nest failure and result in reduced recruitment.

**Mitigation:**

- To minimize impacts to raptors, a ¼ mile radius survey around all proposed well pads, roads, and pipelines will be needed to determine current status or to identify any new nests.

- In the event any active nests are found within 1/8 mile of proposed construction activity, the appropriate raptor NSO will apply and the well pad, road, pipeline, or other facility will require movement.
- In the event any nests are found within ¼ mile of any of the proposed activity associated with the construction and drilling of the Red Point 43-30 well pad, then work within the ¼ mile buffer will be subject to the raptor Timing Limitation which would allow no work to proceed from February 1 to August 15, **or** if through monitoring, the nest is determined to be unoccupied by May 15, then work may proceed, **or** finally, if the nest is active and is monitored by a qualified biologist, then work may proceed once the young have fledged and dispersed from the nest and this has been documented with the Field Office wildlife biologist.
- In the event nests are found within ¼ mile of any proposed activity associated with the Red Point 11-23, 43-26, or 43-25 well pads, a timing limitation in the form of a COA will be applied. Specifically, if any active nests are found within ¼ mile of any of these well pads or associated road or pipelines prior to May 15, no work will be allowed to commence from the time of occupation until all young have fledged and dispersed from the nest as documented by a qualified biologist and noted with the Field Office wildlife biologist.

#### NATIVE AMERICAN RELIGIOUS CONCERNS

Affected Environment: At present, no Native American concerns are known by the GSFO within the project area and none were identified during the inventory. The Ute tribes have in the past, and continue to claim the area as part of their ancestral homeland. If new data is disclosed, new terms and conditions may have to be negotiated to accommodate their concerns during the implementation phase.

Environmental Consequences/Mitigation: Same as cultural section.

#### THREATENED, ENDANGERED, AND SENSITIVE SPECIES (includes an analysis on Standard 4)

Affected Environment: According to the latest species list from the U. S. Fish and Wildlife Service, the following federally listed and candidate species may reside or be impacted by actions occurring in Garfield County: bald eagle, Canada lynx, Mexican spotted owl, black-footed ferret, Uinta Basin hookless cactus, Parachute beardtongue, DeBeque phacelia, boreal toad, yellow-billed cuckoo, razorback sucker, Colorado pikeminnow, bonytail chub, and humpback chub.

Specific to the project location, no federal or state listed species or federal candidate or proposed species or their habitat are known to occur within the project area. The Colorado River cutthroat trout, a BLM Sensitive Species, is known to occur within the East Fork Parachute Creek and Parachute Creek drainages directly adjacent to the proposed 43-30 well pad and within the

Parachute Creek watershed in which the other 3 surface locations are located. Populations of the BLM Sensitive plant species, *Mentzelia argillosa* (Southwest stickleaf), are known to occur on the steep, talus slopes within 1/8 to 1/2 mile of each of the four proposed well pads.

Environmental Consequences/Mitigation: Because no state or federal listed species or federal candidate or proposed species or their habitat reside in the area, and no offsite or indirect impacts are anticipated, the action should result in “No Effect” to any listed species.

#### Colorado River cutthroat trout

Well pad, pipeline, and road construction would all disturb ground and remove vegetation. This increases the chance for erosion that can result in sedimentation of resident streams. Cutthroat trout are especially sensitive to increased sediment loads that can impair preferred spawning habitats by smothering eggs and reducing oxygen exchange and by covering gravel substrates. Sediment also reduces aquatic insect productivity which impacts food resources for trout and other wildlife.

In addition to sediment concerns, natural gas development in close proximity to live streams containing fish increases the risks of water contamination, as well as the risks of pipeline and vehicle spills which can have direct negative effects to individual fish and cutthroat populations. These impacts can not really be mitigated other than to make sure well casings are properly done and that safety measures are strictly adhered to.

If timely and proper reclamation is conducted on all disturbed surface areas (roads, well pads, pipelines) then sedimentation concerns should be reduced. However, increases in road miles and road use will continue to increase the risk and amount of erosion and sediment that enters into both East Fork Parachute, and Parachute Creek.

#### Mitigation:

- To minimize erosion concerns, all road surfaces shall be graveled and made all weather passable. This will reduce rutting, and erosion concerns.
- To minimize disturbance and increase acres of reclamation, gathering facilities should be consolidated at one location to allow for more acres of disturbed portions of pads to be reclaimed.

#### Southwest stickleaf

There should be no direct impacts to the Southwest stickleaf from the construction of the well pads and access roads. Indirect impacts to the populations could occur if the disturbance associated with the proposed action causes an expansion of noxious weeds into occupied stickleaf habitat. Reclamation measures designed to promptly revegetate the disturbed areas and deter establishment of noxious weeds are presented in the Vegetation and Invasive, Non-native Species sections. These actions should prevent indirect impacts to the Southwest stickleaf.

Analysis on the Public Land Health Standard for Threatened & Endangered species: The field data collection portion of the Land Health Assessment was completed in 2004. The

report has yet to be completed. The specific areas addressed in this EA were not looked at as they are private surface locations. The continuation of intensive natural gas development within the larger watershed will continue to hamper the watershed's ability to maintain/meet Standard 4 for Threatened, Endangered, and BLM Sensitive Species.

#### WASTES, HAZARDOUS OR SOLID

Affected Environment: All wastes will be managed in accordance with the applicable Oil and Gas regulations and On-Shore Orders.

#### WATER QUALITY, SURFACE AND GROUND (includes an analysis on Standard 5)

Affected Environment: The proposed action lies in an unnamed watershed that feeds into Parachute Creek. Parachute Creek is characterized by high flow events following high intensity, low frequency thunderstorms during summer months. Spring flow events also occur as snowmelt reaches the Parachute Creek drainages.

Environmental Consequences/Mitigation: The proposed action would temporarily remove relatively stable soils and vegetation (road construction). The plan of development will include mitigation as outlined in the vegetation section of this document to mitigate for storm-water discharge events. The proposed mitigation is necessary to verify compliance with the Clean Water Act.

- The proponent will be required to verify, in writing, that they have obtained a 404 permit to be obtained by the Army Corps of Engineers under section 404 of the Clean Water Act.

Analysis on the Public Land Health Standard for water quality: The proposed action with associated mitigation would not likely prevent standard 5 for water quality from being met.

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

Affected Environment: Drilling activities for Red Point Well 43-26 will be located near or on riparian vegetation associated with West Fork Parachute Creek and Red Gulch. Both are ephemeral streams on private land that support riparian vegetation such as narrowleaf cottonwood, Rocky Mountain Maple, skunkbush, and rose. 300 feet of new access road construction will cross both streams. The well pad itself is located on a site that is dominated by facultative upland species; however, portions of the pad are adjacent to the riparian zone. Red Point Wells 11-23, 43-25, and 43-30 are not located on sites that contain riparian vegetation.

Environmental Consequences/Mitigation: Proposed Action: Construction of the access road to Red Point Well 43-26 will have direct impacts to riparian vegetation. Assuming the degree of road construction will be as discussed during the on-site visit (i.e. low water crossing with an 18 to 22 feet running surface), approximately 0.1 acre of riparian vegetation would be destroyed and

lost. No indirect or cumulative impacts to wetlands and riparian zones are anticipated from the proposed action.

Analysis on the Public Land Health Standard for riparian systems: The proposed drilling activities are located on private land; consequently, there would no influence on “Public” land health. If the proposed action was on public land, the relatively small amount of disturbance would not cause or lead towards a failure to achieve Public Land Health Standards for riparian systems.

#### WILD AND SCENIC RIVERS

Affected Environment: : There are no federal un-studied rivers, rivers found to eligible or designated Wild and Scenic Rivers within the proposed project area.

#### WILDERNESS

Affected Environment: There are no designated Wilderness areas, Wilderness Study Areas or citizens proposed wilderness areas within the proposed project area.

#### NON-CRITICAL ELEMENTS

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

#### SOILS (includes a analysis on Standard 1)

Affected Environment: Red-Point well numbers 11-23 and 43-26 lie on the Nihill channery loam (6-25% slopes). This map unit is described as having a severe erosion hazard with slow surface runoff characteristics. Red-Point well number 43-25 is located on a similar map unit known as the Nihill channery loam (1-6% slopes). This unit possess a moderate erosion hazard rating with slow surface runoff. The majority of Red-Point well number 43-30 is believed to be located on the Nihill-channery loam (6-25% slopes) with the north edge of the pad crossing onto the Rock outcrop-Torriorthents complex, very steep map unit. This later map unit is a highly variable complex with severe erosion hazards and rapid surface runoff characteristics depending on the slope.

Environmental Consequences/Mitigation: The potential of stormwater runoff during road and pad construction, completion and production activities has been identified as an environmental consequence of the proposed action.

- Re-vegetation is required mitigation as outlined in the vegetation section of this document. Re-vegetation is necessary to stabilize the soil-vegetation complex that would be disturbed under the proposed action.

- Soils described above possess severe erosion hazards with rapid surface runoff characteristics. Consequently, roads used to access well-pads will be graveled, crowned and ditched to reduce sediment flow affected by the proposed action.
- The type of gravel to be used will include the use of one of the following:
  - 2 inch CDOT (Colorado Department of Transportation) Class 5 gravel (wet and rolled in) *-or-*
  - Locally obtained road materials approved by the Authorized Officer.
- Graveling of roads should be periodically re-graveled as directed by the authorized officer. Initial gravel application will be a minimum of 4 inches.

Analysis on the Public Land Health Standard for upland soils: The proposed action would not likely prevent standard 1 from being achieved.

#### VEGETATION (includes an analysis on Standard 3)

Affected Environment: Vegetation on the proposed 11-23 and 43-30 pads consists largely of basin big sagebrush, rubber rabbitbrush and cheatgrass. The 43-26 pad is in a mixed mountain shrub community dominated by oakbrush, skunkbush, and snowberry. The access road would cross through a riparian zone with mature narrowleaf cottonwood and boxelder trees. Both the pad and access road have a small infestation of the noxious weeds, houndstongue and musk thistle. The proposed 43-25 pad is in an abandoned irrigated agricultural field. Vegetation consists of perennial grasses such as orchard grass, annual forbs, and the noxious weed, Canada thistle.

Environmental Consequences/Mitigation: The four proposed well pads would remove a total of approximately 12-acres of upland habitat. Proposed new access road construction for the 43-26 pad would remove approximately 0.2 acres of mature old growth riparian habitat. In order to accommodate access to and operation of the wells, approximately half of the total disturbance would remain unvegetated for the life of the wells. If completed in a proper and timely fashion, interim reclamation could restore native herbaceous vegetation on the unused portions of the pads and roads within 2-3 years. The establishment of shrubs may take 5-15 years and mature forested vegetation would be lost for the life of the wells, which is estimated at 20-30 years. However, given periodic workovers and the potential for multiple well bores to be drilled from each pad, it is likely that vegetation at each well pad would remain in early seral stage.

#### Mitigation:

- The following seed mix will be used on the 11-23, 43-25 and 43-30 wells to help establish desirable native grasses and non-aggressive, non-native forbs on the disturbed areas and to minimize the impact of noxious weeds:

<u>Species of Seed</u>	<u>Variety</u>	<u>Application Rate (PLS/acre)</u>
Four-wing saltbush		2.0
Gardner saltbush		1.0
Indian ricegrass	Paloma	2.0

Bottlebrush squirreltail		2.0
Western wheatgrass	Arriba	3.0
Bluebunch wheatgrass	Secar	3.0
<u>Scarlet globemallow</u>		<u>0.25</u>
Total		13.75

The following seed mix will be used on the 43-26 pad:

<u>Species of Seed</u>	<u>Variety Application Rate (PLS/acre)</u>	
Mountain brome		3.0
Thickspike wheatgrass	Critana	3.0
Western wheatgrass	Arriba	3.0
Bluebunch wheatgrass	Secar	3.0
<u>American vetch</u>		<u>1.0</u>
Total		13.0

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The proposed action, with associated mitigation, should not contribute toward a failure to meet Standard 3 for healthy plant communities.

WILDLIFE, AQUATIC (includes an analysis on Standard 3)

Affected Environment: The 4 proposed well pads, roads, and pipelines are all located in close proximity to ephemeral and perennial waters. The 11-23 and 43-26 well pads are directly adjacent to West Fork Parachute Creek, the 43-25 pad is located directly adjacent to Middle Fork Parachute Creek, and the 43-30 is directly adjacent to East Fork Parachute Creek. In addition, all of the activity will occur near Parachute Creek where all of the tributary forks meet.

Parachute Creek and East Fork Parachute Creek both contain aquatic wildlife including Colorado River cutthroat trout – addressed above, as well as brook trout, and aquatic insects.

Environmental Consequences/Mitigation: Well pad, pipeline, and road construction activities will all disturb soils and remove vegetation. A total of approximately 12 acres of upland habitat will be lost. This will increase the potential for erosion that can result in sedimentation of resident streams. Trout are especially sensitive to increased sediment loads that can impair preferred spawning habitats by silting in substrates. This can result in the smothering of eggs, and/or reduction of oxygen exchange. Sediment also reduces aquatic insect productivity which impacts food resources for trout and avian and terrestrial wildlife.

In addition to sediment concerns, natural gas development in close proximity to live streams containing fish increases the risks of water contamination, as well as the risks of pipeline and vehicle spills which can have direct negative effects to individual fish and fish populations.

If timely and proper reclamation is conducted to all disturbed surface areas then sedimentation concerns should be reduced. However, increases in road miles and road use will continue to increase the risk of erosion and sediment into both East Fork Parachute, and Parachute Creek over a long period of time (>20 years).

Mitigation:

- To minimize erosion concerns, all constructed or upgraded road surfaces shall be graveled and made all weather passable. Appropriate water dips and culverts should be incorporated as well. This will reduce rutting, and erosion concerns.
- To minimize disturbance, gathering facilities should be consolidated at one location to allow for more acres of disturbed portions of pads to be reclaimed. Again this should minimize erosion potential.

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): A formal Land Health Assessment was completed in 2004. The specific areas addressed in this EA were not looked at as they are private surface locations. The continuation of intensive natural gas development within the larger watershed will continue to hamper the watersheds ability to maintain/meet Standard 3 for aquatic wildlife.

WILDLIFE, TERRESTRIAL (includes an analysis on Standard 3)

Affected Environment: The proposed well pads would be located within sagebrush, abandoned agricultural field, and riparian vegetation. A variety of wildlife species may be found in the area. The area contains habitat for many species of big game, small game, and nongame mammals, birds, and reptiles. The proposed well pads are located in mapped big game winter range. The COC 44963 lease contains a big game winter timing limitation (January 15 to April 30). The COC 60234 lease contains no big game winter timing limitation.

Environmental Consequences/Mitigation: The proposed action will result in the loss of approximately 12 acres of upland habitat. The action will further fragment habitats and reduce habitat connectivity and habitat patch size. Losses of forage and cover will result. Increased human use in the area will likely displace some animals away from preferred habitats.

Other general impacts (short term, long term, and cumulative) to terrestrial wildlife were adequately addressed in the 1999 FSEIS. Standard measures are incorporated into the APD along with other measures (i.e., automatic well reporting, and reclamation) to conform to the FSEIS that will help to mitigate wildlife impacts. Public access and use of the roads for all the proposed well sites will be limited due to controlled access on private lands. This will minimize some disturbance and reduce effective habitat loss.

Mitigation:

To minimize impacts to wintering big game on lands encumbered by leases not containing winter big game timing limitations, a 60-day Condition of Approval will be applied. As such, no well pad construction, drilling, or completion will be allowed from January 15 to March 15 on the Red Point 43-30 well pad. This will reduce impacts to wintering big game in the area.

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): A formal Land Health Assessment was

completed in 2004. The specific areas addressed in this EA were not specifically looked at as they are private surface locations. Large portions of the watershed were found to not be meeting or were trending away from meeting Standard 3 for terrestrial wildlife. The proposed action will result in further loss and fragmentation of habitats important to many wildlife species and will further trend the watershed away from the attainment of Standard 3 for terrestrial wildlife.

**THRESHOLD ANALYSIS FOR WILDLIFE AND WILDLIFE HABITAT MITIGATION:** In the FSEIS Record of Decision (March 1999) on page 14 it states that: “*Within high value or crucial big game winter range, the operator is required to implement specific measures to reduce impacts of oil and gas operations on wildlife and wildlife habitat.. Measures to reduce impacts would generally be considered when well density exceeds four wells per 640 acres, or when road density exceeds three miles of road per 640 acres.*” Furthermore, Lease Notice GS-LN-05 states: “*Within high value or crucial big game winter range, the operator is required to implement specific measures to reduce impacts of oil and gas operations on wildlife and wildlife habitat.*”

The road and well density thresholds will not be exceeded via implementation of the proposed action. As such offsite or replacement mitigation measures to reduce impacts to wildlife are not currently being considered. However, as future activity increases in the area, it is possible that mitigation will be necessary to offset habitat loss and fragmentation. Cumulative impacts will be monitored over time and as future development increases and a Geographical Area Plan (GAP) is initiated, mitigation opportunities will be identified and pursued.

## VISUAL RESOURCES

**Affected Environment:** The proposed project area is located in areas classified as VRM Class II and Class V in the GSRA 1984 Resource Management Plan. The objective of this VRM Class II is to retain the existing characteristic landscape. The level of change in any of the basic landscape elements (line, form, color, texture) due to management activities should be low and not evident.

The Red Point 43-25 location is proposed in VRM Class V. BLM manual H-8410-1 (Visual Resource Inventory, 1986) states that VRM Class V areas are no longer treated as a management category. Class V areas were applied to areas where the characteristic landscape has been so disturbed, rehabilitation is needed. This area encompassed the old Anvil Points mine area and adjacent infrastructures and disturbances. This Class is generally considered an interim short-term classification until rehabilitation or enhancement is completed.

The protection of VRM classes, landscape character and scenic quality on private and public lands and split estate is discussed on pages 3-41 through 3-45 of the FSEIS. The proposed action takes place on private surface. Visual resource management objectives do not apply to non-BLM lands, but visual concerns may be addressed on split estate. VRM classes shown for non-public lands are an indication of the visual values for those lands, and those values are only protected by landowner discretion. The impacts of development are discussed on pages 4-49 through 4-54 of the FSEIS. The proposed action will not affect any of the key viewing areas or viewsheds described in the FSEIS. In particular, the proposed action will not be seen from the key viewing areas of the 1-70 corridor, county roads, or the town of Rifle. The proposed action

will be visible from West Fork of Parachute Creek and East Fork of Parachute Creek Roads, and for the purpose of the analysis they will be used for KOPS.

The current landscape setting surrounding Red Point 43-25 and 43-30 has been somewhat modified due to previous disturbances associated with the Oil Shale Plant and tailings piles. However, the valley/creek bottoms outside the old plant area have not experienced contrasts to the existing landscape character and excluding the dirt roads, are natural in appearance and undisturbed.

**Environmental Consequences/Mitigation:** The construction of new pads, supporting infrastructure and improved access roads will create long term contrasts in the valley floors within the existing landscape by removing the existing riparian vegetation and exposing bare ground. The new disturbances will produce visual contrasts in color, line, form and texture. Interim reclamation of the well pads, cut of fills along the pads and access roads with seeded shrub and grass species would reduce some of the contrast after two to three growing seasons. However, long term visual impacts are expected on all locations. While none of the Class II sites (Red Point 43-30, 11-23, 43-26) are visible from any county road, they will be visible from the access roads up East Fork of Parachute Creek and West Fork of Parachute Creek. The proposed action will be evident within the landscape and would not meet VRM Class II objectives for the 3 well listed above. The proposed action for Red Point 43-25 will meet VRM Class V objectives. The following mitigation should reduce contrasts on all locations:

**Mitigation:**

Vegetation removal should be kept to a minimum and should avoid straight lines wherever possible on both the pad and the access roads.

A Condition of Approval will be applied to require all above ground facilities(including containment rings) to be painted a flat standard environmental determined during on-site reviews to be color that blends in with the surrounding landscape. The facilities should be placed against the cut side of the pad, where feasible.

## GEOLOGY AND MINERALS

**Affected Environment/Environmental Consequences/Mitigation:**

The target gas zones for the proposed directional wells in this region are generally deep sands within the Williams Fork Formation. The shallower Wasatch G sands may contain some gas but are generally not an economic target at present. All of the coal zones are generally too deep for currently economic underground mining. The production casing should be cemented to the extent that it should isolate the formations and protect all potentially producible gas zones.

### Groundwater

This action is not projected to have any noticeable impacts on groundwater resources within the project area. There are numerous water wells within the region. The wells generally range from 100' to 300' in depth. The aquifers are likely the alluvial gravel deposits overlying the Wasatch and the bedrock water zones in the lenticular sands in the Wasatch. However, no "regional" continuous bedrock aquifer is known to be present. Any shallow groundwater zones encountered during drilling of the proposed wells should be properly protected and the presence of these zones reported to the BLM and COGCC.

**NOISE:**

**Environmental Consequences/Mitigation:** There will be increased levels of noise during the construction, drilling, and completion phases of the proposed action. The noise will be most noticeable along the roads used to haul equipment and at the well site. Drilling activities are subject to noise abatement procedures as defined in the Colorado Oil and Gas Conservation Commission Rules and Regulations (Aesthetic & Noise Control Regulations).

**PALEONTOLOGY**

**Affected Environment:** The proposed wells, pipeline and access road fall within a Condition I area for possible sites of paleontological or scientific value. However, dense soil and vegetation cover rock outcrops and as a result a paleontological survey would not be required for those specific potentially fossiliferous areas prior to BLM project authorization. If scientifically important fossils are discovered during construction activities and cannot be avoided, mitigation may be necessary.

All persons associated with operations under this authorization should be informed that any objects or sites of paleontological value, such as vertebrate or scientifically important invertebrate fossils, should not be destroyed, damaged or removed.

**Environmental Consequences/Mitigation:** A standard Education/Discovery Condition of Approval for Paleontology Resource protection will be attached to the APDs.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, those brought forward for analysis will be formatted as shown above.

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

Access and Transportation

Affected Environment: The project location is reached by traveling north from Parachute, Colorado, on Garfield County road approximately nine miles. Then follow the West Fork of Parachute Creek to the location.

Environmental Consequences/Mitigation: Truck traffic would be heaviest during rig-up, completion activities, and rig moves. The proposed drilling and completion activities are scheduled to begin in November 2005. Year around road use is anticipated to service the private surface and mineral drilling activity in the area. The increase in road use for this location will not substantially increase total use and impact to the area.

CUMULATIVE IMPACTS SUMMARY: The 2004 Draft Roan Plateau Resource Management Plan Amendment & Environmental Impact Statement released in November, 2004 (DEIS, 2004) analyzed 5 alternatives for oil and gas development in the Roan Plateau planning area. These alternatives assessed impacts, including cumulative impacts, for oil and gas development scenarios ranging from 855 to 1582 new gas wells on public lands. The drilling of the wells addressed in this Environmental Assessment is well below the low range of development analyzed in the DEIS.

Since the completion of the 1999 Oil and Gas Leasing and Development FSEIS, the number of wells analyzed in subsequent NEPA documents has exceeded the 230 federal wells forecast in the RFD for lands outside the NOSR Production Area. However, drilling technology advancements has drastically reduced the expected surface disturbance of 3.4 acres per well or 1,020 acres from Federal wells analyzed in the 1999 FSEIS. The FSEIS analysis was based on a reasonably foreseeable development scenario, including the numbers of wells, well spacing, equipment necessary, and assumed emission rates. Since completion of the FSEIS, the majority of new wells have been drilled directionally and, in many instances, are being drilled from existing well pads, thereby reducing the overall anticipated surface impact addressed in the 1999 FSEIS.

The air quality analysis conducted in the 2004 DEIS does assess the impacts to the airshed from oil and gas development within and around the Roan Plateau Planning Area. The proposed action addressed in this document, which could include well pad and/or road construction, well drilling and well completion work typical for oil and gas development, would not represent a significant increase in emissions relative to the emissions assumed in the 2004 DEIS

INTERDISCIPLINARY REVIEW:

<u>Name</u>	<u>Title</u>	<u>Area of Responsibility</u>
Bill Barter	Natural Resource Specialist	Team Leader
Cheryl Harrison	Archaeologist	Cultural Resources, Native American Religious Concerns
Tom Fresques	Wildlife Biologist	Terrestrial & Aquatic Wildlife, Special Status Wildlife Species
Carla Scheck	Ecologist	Special Status Plants, Vegetation, Noxious Weeds
Bruce Fowler	Geologist	Ground Water/Minerals

Jim Wilkinson	Geologist	Paleontology
Mike Kinser	Rangeland Management Specialist	Riparian
Marty O'Mara	Petroleum Engineer	Downhole Conditions of Approval
Brian Hopkins	Community Planner	Transportation, Recreation
Kay Hopkins	Outdoor Recreation Planner	Visual Resources
Mark Wimmer	Rangeland Management Specialist	Soil, Water and Air
Mike McGuire	Rangeland Management Specialist	Range

**FONSI****CO-140-2005-003EA**

The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The proposed action with any 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 approve the Red Point 43-30, Red Point 43-25, Red Point 11-23, Red Point 43-26 (RP 542-26-596), and Red Point 43-26 (RP 343-26-596) as outlined in the Environmental Assessment with the Conditions of Approval in order to provide for the orderly, economical and environmentally sound exploration and development of oil and gas resources on valid oil and gas leases.

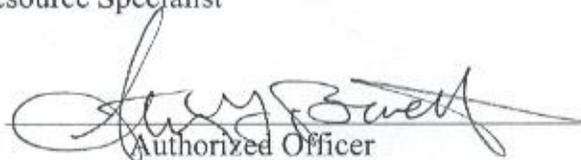
RATIONALE:

1. Approval of the Private Access Alternative is validating the rights granted with the federal oil and gas leases to develop the leasehold to provide commercial commodities of oil and gas.
2. The environmental impacts have been mitigated with measures included in the Surface Use Plan and the attached Conditions of Approval.

MITIGATION MEASURES: Mitigation measures are included in the Surface Use Plan and Conditions of Approval for both surface and drilling operations.

NAME OF PREPARER: Bill Barter, Natural Resource Specialist

SIGNATURE OF AUTHORIZED OFFICIAL:

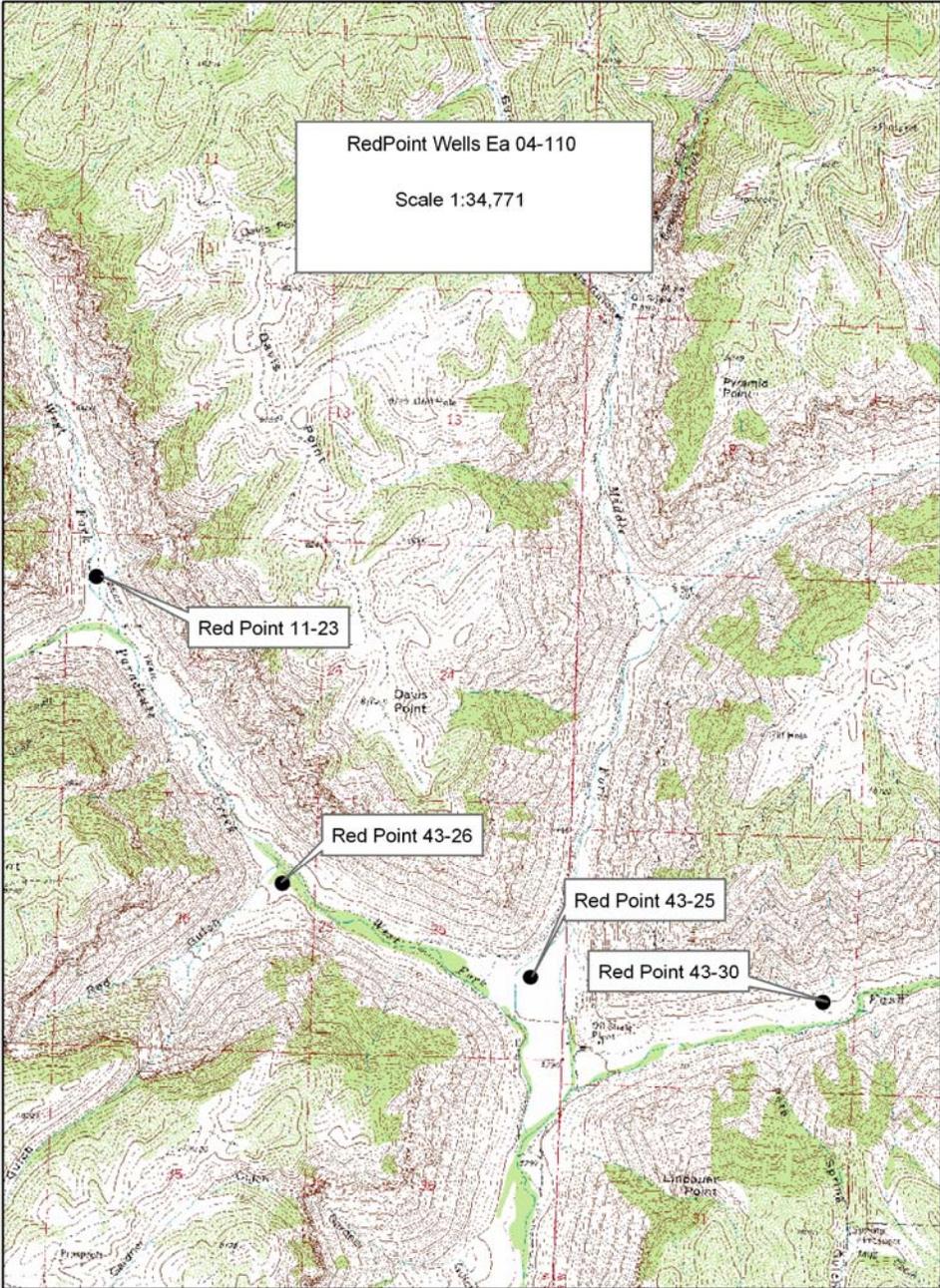


Authorized Officer

DATE SIGNED:

9-29-05

Attachments: map, Conditions of Approval



### Surface Conditions of Approval

1. At least forty-eight (48) hours prior to construction of access road and/or well pad, operator will notify BLM representative of construction startup plans.
2. The paint color to be use on all surface facilities, including metal containment rings is Desert Brown (10yr 6/3). The facilities should be placed against the cut side of the pad, where feasible.
3. The operator is responsible for applying dust abatement measures as needed or directed by the Authorized Officer. The level and type of treatment (watering or application of various dust agents, surfactants and road surfacing material) may be changed in intensity and must be approved by the Authorized Officer. Dust control is needed to prevent heavy plumes of dust from road use that create safety problems and disperses heavy amounts of particulate matter on adjacent vegetation.
4. Noxious weeds, which may be introduced due to soil disturbance associated with the proposed lease operations, will be treated by methods to be approved by the Authorized Officer. The operator shall monitor for the presence of Garfield County and State-listed noxious weeds at least once or twice each year during the growing season. A Pesticide Use Plan (PUP) approved by BLM is required prior to use of any herbicides.

This will apply to all noxious weeds other than cheatgrass. In the case of cheatgrass, interim reclamation will be considered acceptable if cheatgrass and other undesirable vegetation is less than 5 percent of the cover if the adjacent vegetation is less than 50 percent undesirables and cheatgrass will be less than 50 percent if the adjacent vegetation is more than 50 percent undesirables (1999 DSEIS).

#### 5. Cultural Resource Education/Discovery

All persons in the area who are associated with this project must be informed that if anyone is found disturbing historic, archaeological, or scientific resources, including collecting artifacts, the person or persons will be subject to prosecution.

Pursuant to 43CFR10.4(g), the BLM authorized officer must be notified, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43CFR10.4 (c) and (d), activities must stop in the vicinity of the discovery and the discovery must be protected for 30 days or until notified to proceed by the authorized officer.

If in connection with operations under this contract the project proponent, his contractors, subcontractors, or the employees of any of them, discovers, encounters or becomes aware of any objects or sites of cultural or paleontological value or scientific interest such as historic or prehistoric ruins, graves or grave markers, fossils, or artifacts, the proponent shall immediately suspend all operations in the vicinity of the cultural or paleontological resource and shall notify the BLM authorized officer of the findings (16 U.S.C. 470h-3, 36CFR800.112). Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer. Approval to proceed will be based upon evaluation of the resource.

Evaluation shall be by a qualified professional selected by the authorized officer from a federal agency insofar as practicable. When not practicable, the holder shall bear the cost of the services of a non-federal professional.

Within five working days the authorized officer will inform the holder as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the holder will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
- a time frame for the authorized officer to complete an expedited review under 36 CFR 800.11, or any agreements in lieu thereof, to confirm through the State Historic Preservation Officer that the findings of the authorized officer are correct and the mitigation is appropriate.

The proponent may relocate activities to avoid the expense of mitigation and/or the delays associated with this process, as long as the new area has been appropriately cleared of resources and the exposed materials are recorded and stabilized. Otherwise, the proponent will be responsible for mitigation costs. The authorized officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the authorized officer that the required mitigation has been completed, the proponent will then be allowed to resume construction.

Antiquities, historic, prehistoric ruins, or objects of scientific interest that are outside of the authorization boundaries but directly associated with the impacted resource will also be included in this evaluation and/or mitigation.

Antiquities, historic, prehistoric ruins, or objects of scientific interest, identified or unidentified, that are outside of the authorization and not associated with the resource within the authorization will also be protected. Impacts that occur to such resources, which are related to the authorizations activities, will be mitigated at the proponent's cost including Native American consultation cost.

#### 6. Paleontological Resource Education/Discovery

All persons associated with operations under this authorization must be informed that any objects or sites of paleontological or scientific value, such as vertebrate or scientifically important invertebrate fossils, shall not be damaged, destroyed, removed, moved or disturbed. If in connection with operations under this authorization any of the above resources are encountered the proponent shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM authorized officer of the findings. The discovery must be protected until notified to proceed by the authorized officer.

As feasible, the proponent shall suspend ground-disturbing activities at the discovery site and immediately notify the BLM authorized officer of any finds. The BLM authorized officer will, as soon as feasible, have a BLM-permitted paleontologist check out the find and record and collect it if warranted. If ground-disturbing activities cannot be immediately suspended, the proponent shall work around or set the discovery aside in a safe place to be accessed by the BLM-permitted paleontologist.

7. Refer to Appendix I. Surface Reclamation of the 6/98 GSFO’s Draft Supplemental EIS for Oil & Gas Leasing Development (pages I-1 through I-8) for specific reclamation goals, objectives, timelines, measures and monitoring methods. These guidelines will be followed in completing the reclamation of disturbed surfaces on well pads, access roads and pipelines

8. The 4 Reclamation Categories defined on Page I-8 of Appendix I (6/98 GSFO’s Draft Supplemental EIS for Oil & Gas Leasing Development) will be used in gauging the progress of reclamation monitoring.

9. In order to minimize the impact of noxious weeds and invasive species on the site, all disturbed areas not needed for immediate operation of the wells will be seeded with a mixture of native grasses and shrubs and/or desirable, nonnative forbs. A seed mix designed to reclaim the sites and deter establishment of noxious weeds is presented in the Vegetation section. The seed shall be certified free of noxious weeds. The project proponent shall adhere to the specified seed mix and will continue with reclamation activities, including additional reseeding if necessary, until interim reclamation measures are achieved. If the surface owner wishes to maintain irrigable pasture grasses on the old agricultural field at well site 43-25, a seed mix of pasture grasses may be utilized at that site.

The following seed mix will be used on the 11-23, 43-25 and 43-30 wells to help establish desirable native grasses and non-aggressive, non-native forbs on the disturbed areas and to minimize the impact of noxious weeds:

<u>Species of Seed</u>	<u>Variety</u>	<u>Application Rate (PLS/acre)</u>
Four-wing saltbush		2.0
Gardner saltbush		1.0
Indian ricegrass	Paloma	2.0
Bottlebrush squirreltail		2.0
Western wheatgrass	Arriba	3.0
Bluebunch wheatgrass	Secar	3.0
<u>Scarlet globemallow</u>		<u>0.25</u>
Total		13.75

The following seed mix will be used on the 43-26 pad:

<u>Species of Seed</u>	<u>Variety</u>	<u>Application Rate (PLS/acre)</u>
Mountain brome		3.0
Thickspike wheatgrass	Critana	3.0
Western wheatgrass	Arriba	3.0
Bluebunch wheatgrass	Secar	3.0
<u>American vetch</u>		<u>1.0</u>
Total		13.0

Prepare the seedbed by ripping the compacted surface to a depth of 18 inches in 2 foot centers. Disk surface as needed to provide good seed/soil contact. Drill seed ¼ to ½ inch deep following the contour. In areas that cannot be drilled, broadcast seed at 1½ times the application rate and cover ¼ to ½ deep with a harrow or drag bar. Fall seeding will be

conducted after September 1 and prior to ground frost. Spring seeding will be done after the frost leaves the ground and no later than May 15<sup>th</sup>. If the seeding is unsuccessful, operator will be required to make subsequent seedings until the reclamation objectives identified in Appendix I. Surface Reclamation of the 6/98 GSFO's Draft Supplemental EIS for Oil & Gas Leasing Development are met.

#### Erosion Control Practices

The cut and fill slopes will be protected against rilling and erosion with measures such as water bars, lateral furrows, or other measures approved by the Authorized Officer. Weed free straw bales, straw "wattles", straw matting or a well-anchored fabric silt fence will be used on cuts and fill slopes to protect against soil erosion.

#### Topsoil Practices

During well pad, road and/or pipeline construction, topsoil will be stripped to a minimum depth of 6 inches. If topsoil is less than 6 inches, the top 6 inches of surface material will be stripped and piled.

#### Site Protection Practices

Reclaimed areas will be fenced to exclude livestock until seeded species have established. The Authorized Officer will approve the type of fencing. Fencing shall be to BLM standards

The operator will submit an annual reclamation report by December 31 to the Authorized Officer. The report will document compliance with all aspects of the reclamation objectives. The report will specify if the reclamation objectives are likely to be achieved and actions needed to meet these objectives.

10. The proponent will be required to verify they have obtained a 404 permit to be obtained by the Army Corps of Engineers under section 404 of the Clean Water Act.

#### 11. Roads:

Roads used to access well-pads will be graveled, crowned and ditched to reduce sediment flow affected by the proposed action.

The type of gravel to be used will include the use of one of the following:

- 1 ½ inch CDOT (Colorado Department of Transportation) Class 5 gravel (wet and rolled in) *-or-*
- Locally obtained road materials approved by the Authorized Officer.

Graveling of roads should be periodically re-graveled as directed by the authorized officer. Initial gravel application will be a minimum of 4 inches.

To minimize erosion concerns, all constructed or upgraded road surfaces shall be graveled and made all weather passable. Appropriate water dips and culverts should be incorporated as well. This will reduce rutting, and erosion concerns.

12. To minimize impacts to wintering big game on lands encumbered by leases not containing winter big game timing limitations, a 60-day Condition of Approval will be applied. As such, no well pad construction, drilling, or completion will be allowed from January 15 to March 15 on the Red Point 43-30 well pad. This will reduce impacts to wintering big game in the area.

13. Raptors:

To minimize impacts to raptors, a ¼ mile radius survey around all proposed well pads, roads, and pipelines will be needed to determine current status or to identify any new nests.

In the event any active nests are found within 1/8 mile of proposed construction activity, the appropriate raptor NSO will apply and the well pad, road, pipeline, or other facility will require movement.

In the event any nests are found within ¼ mile of any of the proposed activity associated with the construction and drilling of the Red Point 43-30 well pad, then work within the ¼ mile buffer will be subject to the raptor Timing Limitation which would allow no work to proceed from February 1 to August 15, **or** if through monitoring, the nest is determined to be unoccupied by May 15, then work may proceed, **or** finally, if the nest is active and is monitored by a qualified biologist, then work may proceed once the young have fledged and dispersed from the nest and this has been documented with the Field Office wildlife biologist.

In the event nests are found within ¼ mile of any proposed activity associated with the Red Point 11-23, 43-26, or 43-25 well pads, a timing limitation in the form of a COA will be applied. Specifically, if any active nests are found within ¼ mile of any of these well pads or associated road or pipelines prior to May 15, no work will be allowed to commence from the time of occupation until all young have fledged and dispersed from the nest as documented by a qualified biologist and noted with the Field Office wildlife biologist.

14. A minimum of 2 feet of freeboard shall be maintained in the reserve pit. Freeboard is measured from the highest level of drilling fluids and cuttings in the reserve pit to the lowest surface elevation of ground at the reserve pit perimeter.

Notice: Check the lease for stipulations concerning Timing Limitations, No Surface Occupancy, and Controlled Surface Use.