

**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-140-2005-120 EA

CASEFILE NUMBER: COC-62161

PROJECT NAME: Application for Permit to Drill: PA13-26, PA313-26, PA413-26, PA513-26.

LEGAL DESCRIPTION: T6S R95W Sec26, SWSW.

APPLICANT: Williams Production RMT.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

**Proposed Action**: Williams Production RMT proposes to directionally drill the above wells from fee surface/fee mineral on the existing PA 324-26 into federal lease COC62161. The surface is owned by ExxonMobil Oil Corporation. A project map is attached.

Stipulations associated with lease # COC62161:

CSU=Controlled Surface Use; TL=Timing Limitation; NOS=No Surface Occupancy

CSU-02 – Riparian Zones

CSU-04 – Erosive Soils greater than 30%

CSU-05 – Visual Resource Mngt, ClassII

TL-01 – Big Game Winter Habitat

TL-11 – Bald Eagle Winter Roost

NOS-02 – Riparian and Wetland Zones

NOS-11 – Wildlife Seclusion Areas

NOS-15 – Steep slopes greater than 50%

NOS-18 – Interstate 70 Viewshed

The location is approximately five miles east of Parachute, Colorado and one mile north of the interstate in an area of dense gas field construction activity. The constructed pad is on a sandy ridge in mature pinon-juniper cover with minimal understory cover.

The existing pad has been enlarged to accommodate and additional 10 gas wells designed for the next generation of drill rigs. The pad (already constructed) is 400' x 200' comprising about 1.8 acres. Total surface disturbance will be about 2.2 acres.

The existing access road to this location is both graveled and unimproved. No further improvements are planned.

Largest cut is 9' and the largest fill is 4'

Production facilities will be located on access road at the pad.

**No Action Alternative:**

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: 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 field work related to a formal Land Health Assessment was completed on the lands affected by the actions addressed in this EA in 2004 and the Report and Determination Document are currently in draft form. Preliminary results indicate that the area surrounding the proposed action was not meeting the Land Health Standard 3 for healthy plant and animal communities. The primary factor involved in the failure to achieve the standard is habitat loss and fragmentation due to activities and facilities associated with natural gas development. Based on the findings of the assessment, the authorized officer may take appropriate action to achieve conformance with the standards or implement mitigating measures 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

Affected Environment: The proposed action area (Garfield County) has been described as an attainment area under CAAQS and NAAQS (Colorado Ambient Air Quality Standards and National Ambient Air Quality Standards). An attainment area is an area where ambient air pollution amounts are determined to be below NAAQS standards. For further details, refer to the Draft Roan Plateau RMPA EIS, page 3\_20-22.

Environmental Consequences/Mitigation: The Draft Roan Plateau EIS, pages 4\_31-4\_48, describes potential effects from oil and gas development. Analysis was completed with regard to greenhouse gas emissions, a near-field and far-field analysis for carbon monoxide, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), sulfur dioxide, hazardous air pollutants including: benzene, ethylbenzene, formaldehyde, hydrogen sulfide, toluene, and xylenes. Sulfur and nitrogen deposition analysis, acid neutralizing capacity, and visibility screening-level analysis were also completed in the Draft EIS. Findings indicate that no adverse long term effects would be realized under the Draft Roan Plateau EIS plan. It is anticipated that the proposed action would

not likely produce adverse effects to air quality in light of the analysis from air quality modeling contained in the Roan Plateau plan.

However, truck traffic during road construction activities would likely produce high levels of dust in dry conditions without dust abatement.

Emissions of particulate matter will be reduced through control of dust during road construction activities. The operator will water the road and/or use magnesium chloride for dust abatement or other approved surfactant by the authorized officer.

#### AREAS OF CRITICAL ENVIRONMENTAL CONCERN

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

#### CULTURAL RESOURCES

Affected Environment: No cultural resource inventories have been conducted this well location as it was originally fee-fee well location permitted by the Colorado Oil and Gas Commission. Since the proposed well location is on previously disturbed land this action falls under environmental constraints precluding intensive Class III coverage according to the BLM/Colorado State Historic Preservation Office Protocol (1998) and BLM Colorado State Archaeologist guidance (e-mail Haas 1/13/05).

- Previous natural ground disturbance that has modified the surface so extensively that the likelihood of finding cultural resources is negligible.
- Human activity within the past 50 years that has created a new land surface such that all traces of cultural resources have been eradicated.
- “When previously constructed well pad(s), access road(s), and other related improvements are used without additional expansion, no additional cultural inventory is required to assess the potential adverse effects to historic properties” (Dan Haas, BLM State Archaeologist guidance 2005).

Environmental Consequences: According to the 2001 revised regulations [36CFR 800.4(d)(1)] for Section 106 of the National Historic Preservation Act (16U.S.C 470f) a determination for the proposed wells is “No Effect” as long as the new disturbance is confined to the existing disturbance. No formal consultation with the Colorado State Historic Preservation Office (SHPO) was initiated in accordance with the Colorado BLM/SHPO Protocol (1998) and National Protocol (1997) for these well locations. Indirect long term cumulative impacts from increased access and personnel could result in a range of impacts to known and undiscovered cultural resources in the vicinity of the location, from illegal collection and excavation to vandalism.

The importance of the Education/Discovery Stipulation needs to be stressed to Williams and their subcontractors informing them of their responsibilities to protect and report any cultural resources encountered on public land during operations under this permit.

Mitigation:

- Existing ground disturbance survey plats are needed for these existing wells prior to any new ground disturbance to comply with State Office Guidance.
- If any additional ground disturbance extends beyond the existing pad footprints, additional cultural resource inventory will be required. (BLM State Office guidance – Haas 1-13-05)
- A standard Education/Discovery Condition of Approval for Cultural Resource protection will be attached to the APDs.

## 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.

## FARMLANDS, PRIME AND UNIQUE

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

## FLOODPLAINS

Affected Environment: The proposed action is not in a flood plain.

## INVASIVE, NON-NATIVE SPECIES

Affected Environment: Much of the landscape in and around the project area is heavily infested with cheatgrass, a noxious weed. Although non-native, annual forbs are also common in the area, no other noxious weeds have been documented.

<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  
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Environmental Consequences/Mitigation: Surface-disturbing activities provide a niche for the invasion and establishment of noxious weeds. Since cheatgrass already occurs in the project area, the potential for this weed to dominate the site following disturbance is high.

Mitigation:

- The APDs and Conditions of Approval also include measures to re-vegetate the well site with native perennial vegetation. The project proponent will adhere to the specified seed mix and will continue with reclamation activities, including reseeding if necessary, until BLM's interim reclamation measures outlined in the 1999 GSRA Oil and Gas Leasing and Development Final SEIS are achieved.
- The operator shall be required to monitor for the presence of noxious weeds which are included on the State or County noxious weed lists at least once each year during the growing season. The operator shall be responsible for promptly controlling any noxious weed infestations which have resulted from the operator's construction, operation, or maintenance activities within the project area. Noxious weeds should be treated prior to setting seed. A Pesticide Use Proposal must be approved by the Authorized Officer prior to the use of any herbicides.
- Given that cheatgrass is common in portions of the project area, it may not be possible to totally eliminate this noxious weed from the reclaimed areas. In the case of cheatgrass, interim reclamation will be considered acceptable if cheatgrass and other undesirable vegetation are less than 5 percent cover if the adjacent vegetation is less than 50 percent undesirables and cheatgrass will be less than 50 percent cover if the adjacent vegetation is more than 50 percent undesirables (1999 GSRA Oil and Gas FSEIS).

## MIGRATORY BIRDS

Affected Environment: The enlarged existing well pad is located in mature pinyon juniper woodland habitat. Given this vegetation type, the project area provides both foraging and nesting habitat for a variety of migratory bird species. A few species may be present that are on the U. S. Fish and Wildlife Service's Birds of Conservation Concern list. These include the gray vireo, black-throated gray warbler, and pinyon jay. These birds all nest in pinyon juniper woodland habitat. No raptors are known to nest in the vicinity of the existing well pad. However, several golden eagle nests are located on the cliffs located north and above the project area within 2-3 miles. These and other raptors likely forage in the vicinity of the enlarged well pad.

Environmental Consequences/Mitigation: The well pad currently exists and will be slightly enlarged to 2.2 acres. Thus a small amount of additional habitat loss and fragmentation will result from the proposed action. If vegetation is cleared during the spring nesting season, it is possible that bird nests and/or eggs could be destroyed. It is possible that individual birds could be impacted but species and populations should be minimally affected. Resident birds will likely be displaced from the area due to noise and commotion associated with work and human

presence. Raptors should not be negatively affected as abundant upland foraging habitat is located in the area.

## NATIVE AMERICAN RELIGIOUS CONCERNS

**Affected Environment:** A notification letter was sent to the Ute Tribes on January 2, 2003, describing the Webster-Wheeler Geographic Area Plan for natural gas development by Williams Production RMT. No Comments were received. At present, no Native American concerns are known by the GSFO within the project. The Ute Tribes claim the area as part of their ancestral homeland. If new data is disclosed by the Ute Tribes, new terms and conditions may have to be negotiated to accommodate their concerns.

**Environmental Consequences:** 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 and their subcontractors. A standard Education/Discovery Condition of Approval for Cultural Resource protection will be attached to the APD.

**Mitigation:** Same as cultural section.

## PALEONTOLOGY

**Affected Environment:** These proposed wells 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.

## GEOLOGY AND MINERALS

**Affected Environment/Environmental Consequences/Mitigation:** The target gas zones for the proposed directional wells in this region are generally sands within the Williams Fork Formation. The shallower Wasatch G sands may contain gas but are not an economic target at present. All of the coal zones are generally too deep for currently economic underground mining. The operator proposes to cement the production casing to the extent that it should isolate the formations and protect all potentially producible gas zones.

**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 in 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, the existing well pad is located within 1 mile of bald eagle winter range and known roost sites and Designated Critical Habitat (DCR) for the razorback sucker and Colorado pikeminnow located along the Colorado River and its 100-year floodplain. The project area provides no habitat for any other federal or state listed species and the action would have “No Effect” to any other species listed above. The project area also does not constitute potential habitat for any BLM Sensitive plant species.

Environmental Consequences/Mitigation: Minimal new disturbance will result from the proposed action as an existing pad will be enlarged to 2.2 acres to accommodate new directional wells. Although close, the area is outside of mapped bald eagle winter range and identified roost sites. Given the distance to winter roost habitat, the proposed project should have “No Effect” to bald eagles or their habitat.

The project is outside of DCR for the razorback sucker and Colorado pikeminnow. Although there is some potential for increased erosion of sediments into the Colorado River, these fish are well adapted to the high sediment loads traditionally carried by the Colorado River. Minor increases in sediment will have “No Effect” on these fish or their habitat.

Analysis on the Public Land Health Standard for Threatened & Endangered species:

A formal Land Health Assessment was completed for this area in 2004. The area was found to be meeting Standard 4 for those special status species present. The proposed action should have little bearing on the watersheds ability to continue to meet Standard 4 for special status 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 area lies in the Colorado River Watershed located southwest of Rifle, Colorado. The pad is located approximately 400 feet west of an unnamed ephemeral drainage to the Colorado River.

The state of Colorado has developed the 303(d) list which identifies impaired water bodies, waters not meeting water quality standards with technology based controls alone. No streams within the proposed action watershed area are known to be listed on the 303(d) list; suggesting water quality standards are currently being met.

## 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 bedrock water zones in lenticular sands in the Wasatch. However, no "regional" continuous bedrock aquifer is known to be present.

## Environmental Consequences/Mitigation:

### Surface Water

Pad re-construction would result in the removal of vegetation and disturbance of soils that would increase sediment and salinity in surface water in the area. There is little risk that the impact to surface waters would be greater than anticipated should a high intensity thunder storm hit immediately following the surface disturbing activity and before mitigating measures are in place. With measures to control runoff water in place and the relatively flat nature of the pad, the increase in the amount of sediment in surface waters would likely be minimal.

Negative impacts to surface waters would be expected to be minor and last for the most part for 3 years following the initial disturbance. Mitigating activity should be initiated as quickly as possible following construction to avoid unnecessary degradation of surface water quality. There would not likely be long term negative impacts to surface water quality from minor increases in sediment coming from working surfaces that would not be rehabilitated until the wells are no longer producing and facilities are removed and the area rehabilitated.

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: The proposed action is not located within wetlands or riparian zones.

Analysis on the Public Land Health Standard for riparian systems: There would be no affect on the Public Land Health Standard for riparian systems.

## WILD AND SCENIC RIVERS

Affected Environment: There are no 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:** The pad location lies on one soil map unit, namely the Potts Ildefonso complex (3 to 12% slopes). This unit is gently sloping to rolling and typically found on mesas and valley sides. The Ildefonso soils in this complex are described as having slow surface runoff characteristics and moderate erosion hazards. The Potts soil is described as having slow surface runoff and moderate erosion hazard. Primary uses on this soil include limited grazing and wildlife habitat.

**Environmental Consequences/Mitigation:** Disturbances to soils associated with the proposed action may occur in a localized area. The pad is located on a relatively flat area due to original pad construction. Consequently, erosion potential is likely to be minimal. No additional mitigation is required or recommended.

**Analysis on the Public Land Health Standard for upland soils:** The proposed action would not likely prevent standards for soils from being met.

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

**Affected Environment:** The proposed action involves the drilling of an additional 4 wells into federal mineral estate from an existing pad. The existing pad is approximately 1.8 acres and would be enlarged to approximately 2.2 acres in size. Vegetation in the project area is mature pinyon-juniper woodlands with minimal understory vegetation.

An infestation of engraver beetles (*Ips confuses*) has been noted in the general area. The combined stress of the recent drought and attack by Ips beetles has resulted in mortality of numerous pinyon pines in the broader landscape.

**Environmental Consequences:** Expanding the existing pad to accommodate 4 additional wells would require removal of mature pinyon and juniper trees and some herbaceous cover.

The proposed action would result in a long-term loss of vegetation on the portions of the pad needed for ongoing production activities and a long-term modification of vegetative structure, species composition and extent of cover types throughout the project area. With proper and timely reclamation, it is estimated that native, perennial herbaceous ground cover would re-establish within 2-3 years. Vegetation of shrub species would take at least 7-8 years, while recovery of mature pinyon pine and Utah juniper would take more than 100 years.

Freshly cut, drought-stressed, or injured trees are susceptible to *Ips* beetle infestation. Where pinyon pines must be removed under the Proposed Action, those trees would be at increased risk for *Ips* infestation and would also place nearby pinyon trees at greater risk of infestation.

Loss of vegetation and the increase in soil disturbance would increase the risk of cheatgrass becoming established or dominant on the site.

Mitigation:

- In order to minimize the potential for attracting Pinyon Ips beetles to the project area, any pinyon trees that would be removed due to construction activities during the Ips beetle active flight season (late March to early November) would either be chipped or buried on the site within 24 hours.
- A specified seed mix designed to meet interim reclamation standards while providing forage and browse for wintering deer and elk using a mixture of shrub and grass species shall be applied. The following seed mix and rates will be used on all disturbed surfaces:

Species of Seed	Variety	Application Rate (PLS lbs/ac)
Shadscale saltbush		2.0
4-wing saltbush	Rincon	2.0
Wyoming big sagebrush		0.5
Western wheatgrass	Arriba	3.0
Bottlebrush squirreltail		2.0
Indian ricegrass	Paloma	1.5
<u>Galleta</u>	Viva	<u>1.5</u>
Total		12.5

The above rate of application is listed in pounds of pure live seed (PLS)/acre. The seed will be certified and there will be no primary or secondary noxious weeds in the seed mixture.

(The seed mix may be modified with approval from the BLM based on site-specific conditions, the identification of additional useful species for site stabilization, cheatgrass competition, and winter wildlife habitat needs, species success in past revegetation efforts, and seed availability and cost. Native species will be used unless they are proven unsuitable for meeting BLM's reclamation objectives.)

- The reclamation contractor will utilize a seed drill capable of correctly planting the various types of seeds included in the specified seed mixes.
- For seed planted using broadcast methods (e.g., sagebrush), raking or harrowing immediately before and after seeding will be necessary to ensure adequate seed/soil contact. For best success, broadcast seeding of sagebrush in strips is recommended.
- Areas being reclaimed will be fenced (using fence type approved by Authorized Officer) to exclude livestock for the first two growing seasons or until the seeded species have established. Species will be considered established when 50% of the seeded species are producing seed.
- See the Invasive, Non-native Species section for additional mitigation

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

for the area in 2004. This portion of the landscape was meeting Standard 3 for plant communities; however, concerns were raised regarding the abundance of cheatgrass in the area. The proposed action will slightly increase the amount of vegetation loss and will increase the risk of noxious weeds becoming established on the site. With implementation of the above mitigation, the proposed action should have minimal additional impact to vegetative resources.

#### WILDLIFE, AQUATIC (includes an analysis on Standard 3)

**Affected Environment:** The project area does not contain any perennial waters. Thus no aquatic wildlife is present at the project site. However, the area is drained via unnamed ephemeral washes that drain directly into the Colorado River. The Colorado River in the vicinity of the project area contains a variety of fishes and aquatic insects.

**Environmental Consequences/Mitigation:** The proposed action will involve minimal new disturbance and cut and fills will be small. Erosion potential should be minimal, and most all native fishes in the Colorado River are well adapted to the high sediment loads carried by the system. Fish and aquatic insects should not be impacted by the action as any minor increase in sediment will be well within the background levels of the Colorado River.

**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. Only 2 areas within the watershed were not meeting this standard due to poor road maintenance and excessive erosion concerns. The proposed action should have minimal influence on the watershed's ability to meet or maintain standard 3 for aquatic wildlife.

#### WILDLIFE, TERRESTRIAL (includes an analysis on Standard 3)

**Affected Environment:** The existing to be enlarged well pad is located in mature pinyon-juniper woodland habitat. Given this vegetation type, the area provides habitat for a variety of big game, small game, and nongame mammals, reptiles, and birds. Given the treed nature of the site, the area provides hiding and thermal cover for big game, and is mapped as important big game winter range. The federal lease contains a big game winter timing limitation (December 1 to April 30).

**Environmental Consequences/Mitigation:** The proposed action will result in the loss of a small amount of additional terrestrial habitat. This will result in minor losses of forage, and cover for many wildlife species. In addition, the action will result in a minor increase in habitat fragmentation and will further reduce habitat patch size and connectivity. This can benefit some generalist species while impacting other specialized species. Creation of edge habitat can be good for mule deer for instance, but the human intrusion component related to road use for construction, drilling, completion and production activities will displace some wildlife species away from preferred habitats in the area. 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 some wildlife impacts. In addition the project will occur on private lands which will reduce access and limit indirect impacts.

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 for the area in 2004. Large portions of the area were not meeting or trending away from meeting Standard 3 for terrestrial wildlife. This was due to the large amounts of natural gas activity in the watershed which is fragmenting and reducing habitat quality for some high profile species such as mule deer. The proposed action will slightly increase the amount of habitat loss and fragmentation, and will further trend the area away from meeting 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 the well pad exists and will only be expanded. As such offsite or replacement mitigation measures to reduce impacts to wildlife are not currently being considered.

**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 the north I-70 frontage road approximately four miles the following gravel and dirt graded roads generally northeast approximately 2.5 miles to the existing PA 324-26 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.

### VISUAL RESOURCES

**Affected Environment:** The proposed project area is located on private surface in an area classified as VRM Class II 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.

Stipulations from GSRA Oil and Gas Final SEIS-1999 for visual resources are attached to Lease # COC62161. The following stipulations apply to this proposed action: CSU # 5 Visual Resource Management (VRM) Class II, and NSO #18 Interstate 70 Viewshed.

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 impacts of development are discussed on pages 4-49 through 4-54 of the FSEIS. Visual resource management objectives do not apply to non-BLM lands, but visual concerns may be addressed on split estate where federal minerals occur. 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.

**Environmental Consequences/Mitigation:** The proposed action will not be visible from the I-70 viewshed, therefore NSO #18 does not apply. However, the proposed action could be viewed from one of the FSEIS identified Key Observation Points, Holms Mesa and is described on page 4-51. Viewing distance will be approximately 2+ miles.

Short term impacts are likely to exceed VRM class II objectives during drilling and completion activities. However, long term impacts are also likely due to the increased presence of permanent facilities within the landscape. With the following mitigation the impacts should be mitigated. In order to reduce impacts to Holms Mesa viewshed, all above ground facilities a flat desert tan color to blend in with the surrounding environment. Facilities should be located in an

area that has a good backdrop or surrounding landscape that blends them in with the existing landscape as much as possible. Efforts should be made to leave as much existing vegetation as possible and avoid straight line clearing.

CUMULATIVE IMPACTS SUMMARY: 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 have 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 has 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 per acre disturbance of the proposed action and of prior actions at these sites is about 0.6 acres per natural gas well.

The air quality analysis conducted in the 2004 Glenwood Springs Resource Management Plan Amendment for the Roan Plateau and Draft Environmental Impact Statement (DEIS) does assess the impacts to the air shed 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 Kinsler	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

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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 Application for Permit to Drill the PA 13-26, PA 413-26, PA 513-26, and PA 313-26 on the existing PA 324-26 pad 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 proposed action validates 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:

AUG 30 2005

ATTACHMENTS: map, Conditions of Approval



CONDITIONS OF APPROVAL  
APPLICATION FOR PERMIT TO DRILL

Company/Operator: **Williams Production RMT Company.**

Surface Location: **SESW Sec. 26, T06S, R95W**

<u>Well</u> <u>Name</u>	<u>Well</u> <u>No.</u>	<u>API No.</u>	<u>BH Location</u>	<u>Lease</u>	<u>CA</u>
PA	13-26	05-045- Pend.	NWSW Sec 26, T06S, R95W	COC- 62161	COC-66630
PA	313-26	05-045- Pend.	NWSW Sec. 26, T06S, R95W	COC- 62161	COC-66630
PA	413-26	05-045- Pend.	NWSW Sec. 26, T06S, R95W	COC- 62161	COC-66630
PA	513-26	05-045- Pend.	NWSW Sec. 26, T06S, R95W	COC- 62161	COC-66630

Those Conditions of Approval identified in the Williams Production RMT Company Master APD (Approved January 30,2004) for the Parachute Field Area c will apply.

Please contact Carol Snyder (970) 244-3033 or Ed Fancher (970) 244-3039 or of this office at least 24 hours prior to running the surface and production casing and conducting the BOP test.

### Surface Use Conditions of Approval

1. The Authorized Officer or his representative shall be contacted at least 48 hours prior to the anticipated start of construction.
2. The paint color to be used on all surface facilities including the metal containment rings surrounding the tank batteries is Desert Brown (10YR 6/3).
3. A minimum of 2 feet of freeboard will be maintained in the reserve pit between the maximum fluid level and the top of the berm. Pits will be designed to exclude surface runoff. The reserve pit will be fenced to exclude livestock.
4. The location (exclusive of the reserve pit) will be recontoured to conform to the surround terrain as soon as drilling activities are completed.
5. Operator will contact the State of Colorado Water Quality Control Division (for needed stormwater permits) prior to beginning construction activities. Written documentation to the Authorized Officer is required to indicate the permits have been obtained or are not required.
6. The operator is responsible for applying dust abatement measures to prevent heavy plumes of dust from road use that create safety problems and disperses heavy amounts of particulate matter on adjacent vegetation. 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.
7. For the life of the wells, the operator shall be responsible for monitoring for the presence of any State or County-listed noxious weeds at least once each year during the active growing season.
8. Cultural Resource Education/Discovery Stipulation: 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, 36 CFR 800.112). 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 800.111, 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 ruins, prehistoric ruins, paleontological objects, 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 ruins, prehistoric ruins, paleontological objects, 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 authorization's activities, will be mitigated at the proponent's cost including the cost of consultation with Native American groups.

9. 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.

10. Reclamation Plan. 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.

Revegetation: The surface owner will determine the seed mix to used in the revegetation of well pad locations and access roads to allow for the best integration of species into the grazing management plan for that location.

The following seed mix is recommended to meet interim reclamation standards and provided winter forage and browse for wildlife.

<u>Species of Seed</u>	<u>Variety</u>	<u>Application Rate (PLS lbs/ac)</u>
Shadscale saltbush		2.0
4-wing saltbush	Rincon	2.0
Wyoming big sagebrush		0.5
Western wheatgrass	Arriba	3.0
Bottlebrush squirreltail		2.0
Indian ricegrass	Paloma	1.5
<u>Galleta</u>	Viva	<u>1.5</u>
Total		12.5

Prepare the seedbed by ripping the compacted surfaces to a depth of 18” on two foot centers. 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. 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 and segregated from other subsurface material piles, i.e. excess material from reserve pit construction. The top 6 inches of surface material will be stripped and stockpiled.

### 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

11. 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.

12. The reclaimed area 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.

13. In order to minimize the potential for attracting Pinyon Ips beetles to the project area, any pinyon trees that would be removed due to construction activities during the Ips beetle active flight season (late March to early November) would either be chipped or buried on the site within 24 hours.

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