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Bureau of Land Management  
Glenwood Springs Field Office  
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PO Box 1009  
Glenwood Springs, CO 81602**

**ENVIRONMENTAL ASSESSMENT**

NUMBER: CO-140-2005-075 EA.

CASEFILE NUMBER: COC-58673.

PROJECT NAME: Application for Permit to Drill; SG 43-28.

LEGAL DESCRIPTION: NESE, Sec 28, T7S R96W.

APPLICANT: Williams Production RMT.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action: Williams Production RMT proposes to drill the SG 43-28 in federal lease 58673. Surface and minerals are federal. See attached map.

Lease stipulations associated with the proposed action:  
TL-1, CSU-5, VRM-9.

Site is nested in a narrow drainage immediately north of I-70 and visible briefly to passing traffic. Site is mostly bare soil with widely scattered annuals and a few shrubs. Drainages bound both the east and west side of the pad. The runoff from the west side will be diverted along the north side of the pad to the east drainage.

Approximately 550 feet of new access road is planned. All pipelines will be in the disturbed area of the planned access road.

Pad size is 300' X 180' or about 1.23 acres. Maximum cut is 13.5 ft. Maximum fill is 13.0ft.

A fee well is also planned from this Federal surface location. The SG44-28 will be drilled from this location into fee mineral. This action will be authorized by a Right-of-Way. No new surface disturbance is permitted with the addition of this well.

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 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. Factors involved in the failure to meet the standard were: 1) cheatgrass dominates much of the immediate area, 2) pinyon and juniper trees are encroaching into sagebrush habitat, and 3) wildlife habitat

throughout much of the overall landscape is fragmented 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 further mitigating measures on future actions to maintain or prevent a further decline in land health.

These 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) 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: A Class III cultural resources inventory (GSFO# 1105-9) of Williams Production RMT SG# 43-28 well location was conducted by Grand River Institute in May 2005. No cultural resources were identified.

Environmental Consequences/Mitigation: As no cultural resources are within the Area of Potential Effect of the proposed well location, a determination of “No Effect” has been made for cultural resources according to the 2001 revised regulations [36CFR 800.4(d)(1)] for Section 106 of the National Historic Preservation Act (16U.S.C 470f) . 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 this well pad.

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 locations, 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: 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

<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: 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 would not take place in a known floodplain.

#### INVASIVE, NON-NATIVE SPECIES

Affected Environment: The proposed pad and access road lies in a salt desert shrub community dominated by shadscale, greasewood, and Wyoming sagebrush, with an understory dominated by various lichens and the noxious weed, cheatgrass (*Bromus tectorum*). The noxious weed, whitetop, (*Cardaria draba*), is not currently found in the project area, but is known to occur along the frontage road in the vicinity of the project.

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, and a whitetop infestation is known to occur nearby, the potential for noxious weeds to dominate the site following disturbance is high. The APDs and Conditions of Approval include measures to re-vegetate the well site with native perennial shrubs and grasses. 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 objectives are achieved. In addition, a standard Condition of Approval is attached requiring the project proponent to promptly treat and control any invading noxious weeds. A Pesticide Use Proposal must be approved by BLM prior to commencing any herbicide spraying.

#### MIGRATORY BIRDS

Affected Environment: The proposed well pad and access road is comprised mainly of sparse amounts of salt desert shrubs, greasewood, sagebrush, a few scattered juniper trees, and a few grasses and forbs. A lot of the area is barren soil with little herbaceous cover. Given the vegetation present, the project area provides both foraging and nesting habitat for a few species of migratory birds. Two species listed on the U.S. Fish and Wildlife Service's Birds of Conservation Concern list may be present, the sage sparrow, and Brewer's sparrow. However, given the density of sagebrush and overall cover, occupancy by either species is doubtful.

No raptor nests occur in the immediate vicinity of the project area. However, a variety of raptors likely forage near the planned access road and well pad.

Environmental Consequences/Mitigation: The proposed action will disturb approximately 1.7-acres of upland habitat to accommodate the road and well pad. A portion of the well pad may be reclaimed upon completion of drilling which would reduce habitat loss to approximately 1-acre. Given the sparse vegetation at the site, and the proximity of the action to Interstate 70, the proposed well pad and road access should have minimal effect on migratory birds. Vegetation is not dense enough to facilitate nesting and only a small amount of foraging habitat would be lost.

#### 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 inventories. The Ute tribes 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.

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.

Mitigation: A standard Education/Discovery Condition of Approval for Cultural Resource protection will be attached to the APD.

#### 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.

The federally listed plant Uinta Basin hookless cactus (*Sclerocactus glaucus*) is known to occur within 2 miles of the proposed action area and potential habitat does exist within the project area. The project area appears to include potential habitat for the Federal Candidate plant, DeBeque phacelia (*Phacelia submutica*), and the BLM Sensitive plants, DeBeque milkvetch (*Astragalus debequaeus*) and Adobe thistle (*Cirsium perplexans*). Special status plants surveys were conducted on April 20 and May 10, 2005. No special status plants were found during either survey. During the surveys, the project area was determined to have only marginal potential habitat for DeBeque phacelia or Adobe thistle.

The site is located within 1 mile of bald eagle winter range habitat and known roosting areas. No nests are located along the Colorado River near the project area. The action area is also located within 1 mile of Designated Critical Habitat (DCH) for the Colorado pikeminnow and razorback sucker. No other federal or state listed species, federal proposed or candidate species or their habitat occur within or near the project area.

Environmental Consequences/Mitigation:

*Special Status Plants:* No special status plants were found within the project area; therefore, the proposed action would have “No Effect” on these species. The COAs include provisions to revegetate the portions of the pad and road not needed for the operation of the well with native shrubs and grasses, and to control noxious weeds. This should ensure that the proposed action would not impact surrounding potential habitat for any special status plants.

*Bald eagle:* The project will occur in upland vegetation well outside of riparian vegetation located along the Colorado River. Construction will occur outside of the winter months of occupation by bald eagles and will have “No Effect” to the birds or their habitat.

*Colorado pikeminnow & razorback sucker:* The project will occur in upland vegetation well outside of the 100-year floodplain/DCH located along the Colorado River. The action will involve approximately 13’ of cut and fill. Any minor potential increases in erosion and sedimentation occurring prior to reclamation efforts would have no impact to either of these fish species. These fish are well adapted to the sediment loads occurring within the Colorado River. The proposed action would have “No Effect” to these fish or their habitat.

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

The proposed action would not result in a failure to achieve the Standard for Threatened, Endangered and 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)

Surface Water:

The proposed action lies near the base of an ephemeral or intermittent drainage that drains above the Colorado River, but is not shown to reach it.

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.

Environmental Consequences/Mitigation:

Surface Water:

Road 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 some 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 proper engineering of roads, the increase in the amount of sediment in surface waters would be minimized.

- Culverts in road crossings of drainages are required to pass a 25 year 6 hour storm event and would be installed during no flow or low flow conditions

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 be some minor long term negative impacts to surface water quality from an increase 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 and design features would not likely prevent standard 5 from being met.

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

Affected Environment: The Proposed Action and the No Action alternative are not located within wetlands or riparian zones.

Environmental Consequences/Mitigation: There would be no impact to wetlands or riparian zones from either the Proposed Action or the No Action alternative.

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 citizen's wilderness proposal 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:

#### RANGE MANAGEMENT:

Affected Environment: The proposed action is to construction one well with 550 feet of access road on public land on the Smith Gulch Allotment 08922. The table below summarizes the permitted grazing use on the allotment.

<b>Allotment</b>	<b>Permittee</b>	<b>Livestock Kind &amp; NO.</b>	<b>Season of Use</b>	<b>% PL</b>	<b>AUMs</b>
Smith Gulch # 08922	Malcolm Jolley	Sheep 970	02/13 – 02/28	100	102
		Sheep 970	03/01 – 03/21	100	134

**Environmental Consequences:** The proposed action would have very little impact on the grazing permittee's livestock operation or his use of the allotment. The grazing permittee has not grazed this allotment for the past several years possibly due to a lack of snow cover which is needed to provide water for sheep to graze the allotment. The permittee has requested to not graze the allotment in 2005.

Construction of the proposed project would result disturbance of less than 2 acres and the loss of less than one AUM of livestock forage. Rehabilitation of vegetation on the proposed project site would result in reestablishment of forage on most of the disturbance in about 3 years. Because this is a particularly harsh site, establishment of vegetation may take longer. Some of the project area would continue to be used as a driving surface on the access road or on the well pad. These working surfaces would not be rehabilitated for the active life of the well and would constitute a long term loss of a minimum amount of livestock forage. Livestock may also be disturbed by the increase in human activity during construction and maintenance of the proposed project. The negative impacts expected to result from implementation of the proposed action to livestock grazing would be minimal.

**Mitigation:** The disturbance resulting from the proposed action would be contoured and vegetation would be re-established to the maximum extent possible. It is not anticipated that the level of impacts from implementation of the proposed action would require further mitigating measures. The level of forage utilization will be monitored on the allotment. If necessary, adjustments in livestock use will be made to protect land health.

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

**Affected Environment:** The well pad and roads in the proposed action area cover one soil map unit. The below description of that unit is summarized from the Soil Survey of Rifle Area, Colorado (SCS 1977).

- Arvada loam, (6 to 20% slopes) is a deep well drained loam found on fans and high terraces. Erosion hazard is described as being severe with surface runoff characteristics being described as moderate. Water holding capacity of this soil is high. Typical uses for this soil include wildlife habitat and limited grazing use.

**Environmental Consequences/Mitigation:** There would be some loss of soil, some loss of soil productivity, and an increase in sedimentation resulting from construction of the road. The extent of these impacts on soils would not be great and would be expected to last for a relatively short period of time. The proposed action includes best management practices in its design to mitigate impacts to soils. The road would likely be crowned, ditched, and have properly placed

water bars in order to divert overland flow from off of the road. The operator will be responsible for appropriate road maintenance that would minimize soil loss.

Construction of the proposed road will be required to be within the parameters established in the 1999 FSEIS analysis. Since the impacts to soils are within the parameters described in the FSEIS no further analysis is necessary. The authorization would require full compliance with BLM directives and stipulations that relate to protection of soils in order to maintain soil productivity and minimize soil erosion, and reclamation of surface disturbance following construction.

Analysis on the Public Land Health Standard for upland soils: The proposed action would not likely prevent health standards from being met provided that mandatory design features and mitigation are implemented.

VEGETATION (includes an analysis on Standard 3)

Affected Environment: Existing vegetation in the area of the proposed action consists primarily of shadscale, greasewood, bud sage, and Wyoming big sagebrush. Understory species include various lichens and the native forb, *Astragalus flavus*, however, cheatgrass is the dominant understory species. The potential for cheatgrass to dominate the site following disturbance is high.

Environmental Consequences: The proposed action would result in the loss of approximately 1.7-acres of upland vegetation and microbiotic crusts to accommodate the road and well pad. A portion of the well pad would be reclaimed upon completion of drilling which would reduce long-term vegetative loss to approximately 1-acre. With implementation of the following reclamation practices (which will be included as COAs), including reseeding the site with native grasses and shrubs, promptly controlling noxious weeds, and fencing the pad to exclude livestock grazing, establishment of desirable vegetation on the sites can be expected within 2-3 years following completion of drilling. Monitoring of the reclamation would occur as identified in COAs.

Mitigation: A specified seed mix designed to meet interim reclamation standards and land health standards using a mixture of native shrubs and grasses shall be applied. The seed mix should deter the establishment of noxious weeds and provide for establishment and recruitment of a diverse native plant community. The following seed mix and rates will be used on all disturbed surfaces, including pipelines:

<u>Species of Seed</u>	<u>Variety</u>	<u>Application Rate (lbs/acre)</u>
Scarlet globemallow		1.0
Four-wing saltbush	Rincon	2.0
Shadscale		2.0
Gardner saltbush		1.0
Wyoming big sagebrush		0.5
Western wheatgrass	Arriba	3.0
Salina wild rye		1.0
Galleta	Viva	1.0

Bottlebrush squirreltail	0.5
<u>Sandberg bluegrass</u>	<u>1.0</u>
Total:	13.0 lbs. PLS/acre Total

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 operator shall notify the Authorized Officer 24 hours prior to seeding and shall provide seed tags and evidence of certification of the seed mix to the Authorized Officer within 30 days of completion of the seed application.

Upon completion of backfilling, leveling, ripping to a minimum 18 inch depth on 2 foot centers, and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed areas(s). Prior to reseeding, all disturbed surfaces will be scarified and left with a rough surface. No depressions will be left that will trap water and form ponds.

The prepared seedbed will be seeded within 24 hours after completing dirt work unless a change is requested by the operator and approved by the Authorized Officer. Prepare the seedbed by contour cultivating 4-6 inches deep. 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. All seeding will be conducted between September 1<sup>st</sup> and May 1<sup>st</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.

A standard Condition of Approval will be attached requiring the project proponent to promptly treat and control any invading noxious weeds. A weed detection and control program would begin the first growing season after surface disturbance occurs and continue through the life of the wells. A Pesticide Use Proposal must be approved by BLM prior to commencing any herbicide spraying.

In addition, all areas being reclaimed will be fenced to exclude livestock until seeded species are established and well-rooted, and 55% of seeded species are producing seed. (This will require a minimum of two growing seasons but may be longer depending on climatic conditions.)

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The area is not currently meeting Standard 3 for healthy plant communities due to the abundance of cheatgrass and the beginnings of juniper encroachment. The proposed action would result in a long-term loss of approximately 1 acre of vegetation and a slight increase in fragmentation of the overall watershed. With timely and successful reclamation, the proposed action should result in a site dominated by native vegetation which may result in a small net progress toward meeting the Standard for healthy plant communities across the landscape.

WILDLIFE, AQUATIC (includes an analysis on Standard 3)

Affected Environment: The proposed well pad and access road are not located directly near any perennial water sources capable of harboring or sustaining aquatic wildlife. However, the action area is located within 1 mile of the Colorado River which contains a diverse fish and aquatic insect assemblage. Fish species include carp, roundtail chub, bluehead suckers, flannelmouth suckers, and a few brown trout.

Environmental Consequences/Mitigation: The action will involve approximately 13' of cut and fill. Any minor potential increases in erosion and offsite sedimentation occurring prior to reclamation efforts would have no impact to any of these fish species. Trout habitat in the area is marginal due to temperature and sediment loads. The native suckers and chubs are well adapted to the sediment loads occurring within the Colorado River.

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial):

The proposed well pad and road would have no bearing on the watersheds ability to meet or maintain Standard 3 for aquatic wildlife.

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

Affected Environment: The proposed road and well pad are located within sparse salt desert shrub, sagebrush, greasewood, and juniper vegetation. A variety of wildlife species may be found in the general area. The area contains habitat for many species of big game, small game, and nongame mammals, birds, and reptiles. The well pad and road would be placed in habitat mapped as crucial big game winter range by the Colorado Division of Wildlife. The proposed well pad has a big game winter timing limitation stipulation on the leases restricting surface uses (other than operation and maintenance of production facilities) from December 1 through April 30.

Environmental Consequences/Mitigation: General impacts (short term, long term, and cumulative) to terrestrial wildlife were adequately addressed in 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.

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

The proposed action will result in a slight amount of habitat loss and fragmentation, the area is not currently meeting Standard 3 for upland wildlife and this action will further contribute to a decline in this Land Health Standard.

**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. This action will result in a slight increase in habitat loss and fragmentation, but at this time, replacement mitigation measures to reduce impacts to wildlife from this action will not be considered. In the event activity increases in the future and a GAP is initiated, it is likely that mitigation will be sought to offset habitat loss and fragmentation. Cumulative impacts will be addressed in greater detail, and mitigation opportunities will be identified and pursued.

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

#### ACCESS AND TRANSPORTATION

Existing road access to the pad is through private property. Truck traffic will be the heaviest during rig-up, completion activities, and the rig-move to the next location. The proposed drilling and completion activities on the federal well will likely commence in summer 2005.

#### 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.

#### 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: These existing well pad falls 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.

VISUAL RESOURCES:

Affected Environment: The proposed well site is located in an area classified as VRM Class III in the GSRA 1984 Resource Management Plan. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

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. The proposed action will be seen for a short duration from the 1-70 corridor and frontage road. This proposed action for this well has no VRM Class III or I-70 viewshed stipulations attached the lease. The proposed action will be seen from the 1-70 corridor and adjacent frontage road.

Environmental Consequences/Mitigation: The construction of the pad and the access road will create contrasts in form, color, line and texture within the existing landscape resulting from cut and fill dirt work and from removing the existing vegetation. Short term impacts to the I-70 viewshed are expected to dominate the landscape and not meet VRM Class III objectives. The short term impacts would result from drilling and completion activities until the pad is reclaimed. However, the site will meet VRM Class III objectives in the long term after the following mitigation and after final reclamation is completed. After reclamation, the site may attract the attention of casual observers on I-70, but the duration will be short and viewing window limited and the site should not dominate the landscape.

Mitigation: In order to reduce long term visibility of the facilities, they should be placed on the NW corner of the pad. All above ground facilities to be painted a environmental color and/or pattern that blends in with the existing landscape determined on the on-site visits.

Non Critical Element	NA or not Present	Applicable or present, no impact	Applicable and present brought forward for analysis
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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
Realty Authorizations	X		
Recreation	X		
Socio-Economics			X
Transportation			X

Visual Resources			x
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**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 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 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
Wayne Bankert	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-140-2004-075 EA**

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 SG43-28 well with 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.

It is also my decision the grant a Right-of-Way to drill the SG44-28 well from the federal surface location (SG43-28) to private mineral estate.

RATIONALE:

1. Approval of the proposed action 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 surface and drilling operations and the Right-of-Way.

NAME OF PREPARER: Bill Barter, Natural Resource Specialist.

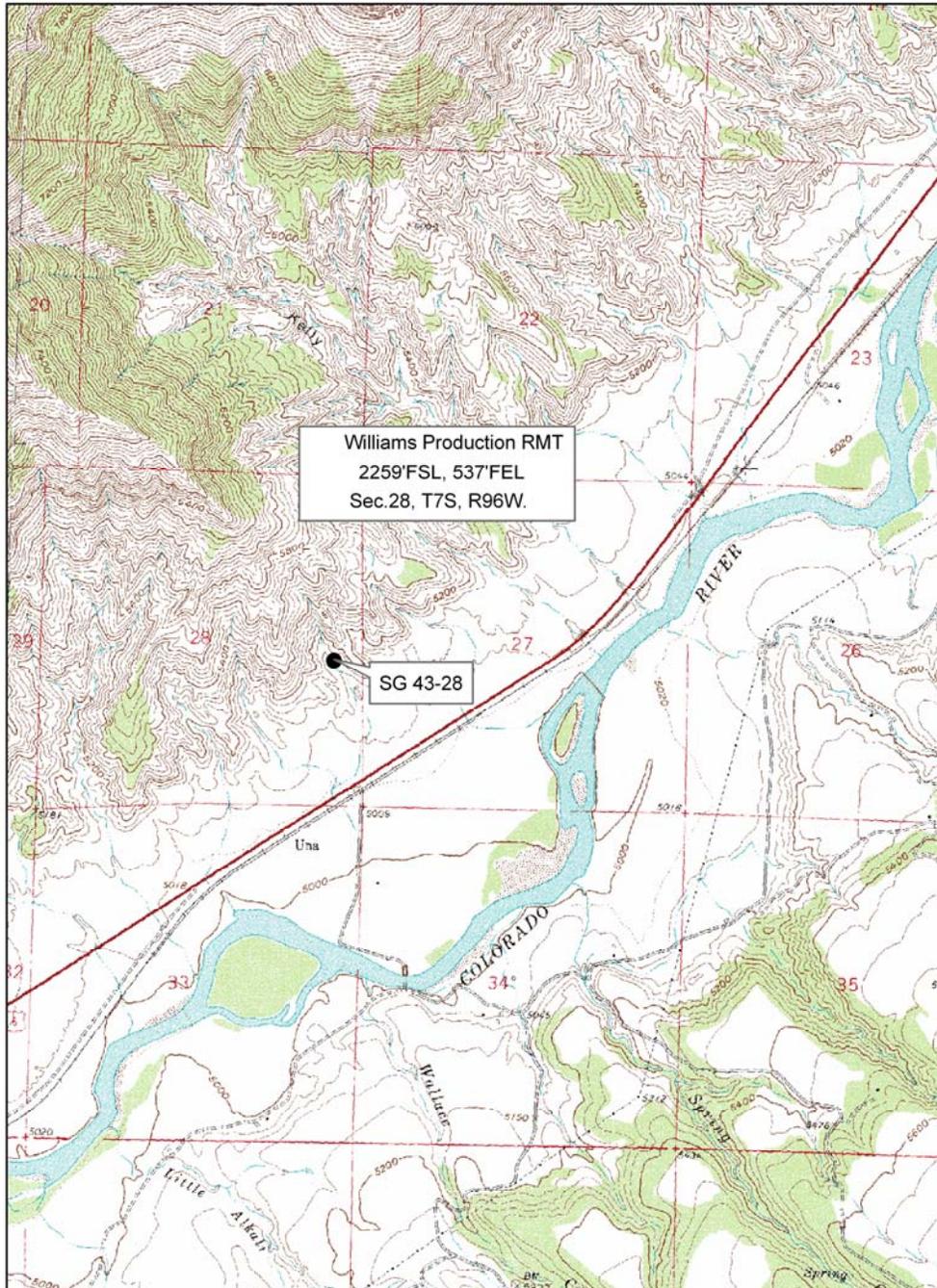
SIGNATURE OF AUTHORIZED OFFICIAL:

  
Authorized Officer

DATE SIGNED:

8-2-05

ATTACHMENTS: Map, Conditions of Approval.



## Surface Use Condition of Approval

1. Divert surface runoff from drainage at the northwest corner of pad across the north cut line of pad and into the drainage along the east side of the pad.
2. The operator is responsible for applying dust abatement measures as needed or directed by the Authorized Officer to reduce the emissions of fugitive dust from access roads. The level and type of treatment (watering or application of various dust agents, surfactants and road surfacing material) may be changed in frequency, intensity, etc., 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
3. A minimum of 2 feet of freeboard will be maintained in the reserve pit, between the maximum fluid level and pad level. Pits will be designed to exclude all surface runoff.
4. All compacted portions of the pad, road, and pipeline route will be ripped to a depth of 18 inches on 2 foot centers unless in solid rock. Prior to seeding, stockpiled topsoil (stripped surface material) will be spread to a uniform depth that will allow the establishment of desirable vegetation.
5. All slopes reclaimed at a slope steeper than 3:1 may employ extraordinary seeding and/or erosion control measures, such as hydroseeding, mulching and/or geotextiles (to be determined at the time of reclamation by the BLM Authorized Officer).
6. The reclamation contractor shall utilize a seed drill capable of correctly planting the various types of seeds included in the specified seed mixes, at the proscribed rates, and at the appropriate depth. Multiple seed boxes for different types of seed may be necessary.

The following seed mix is required:

<u>Species of Seed</u>	<u>Variety</u>	<u>Application Rate (lbs/acre)</u>
Scarlet globemallow		1.0
Four-wing saltbush	Rincon	2.0
Shadscale		2.0
Gardner saltbush		1.0
Wyoming big sagebrush		0.5
Western wheatgrass	Arriba	3.0
Salina wild rye		1.0
Galleta	Viva	1.0
Bottlebrush squirreltail		0.5
<u>Sandberg bluegrass</u>		<u>1.0</u>
Total:		13.0 lbs. PLS/acre Total

7. For seed planted using broadcast methods, raking or harrowing immediately before and after seeding will be necessary to ensure adequate seed/soil contact. Compaction of seed after broadcasting with dozer tracks (trackwalking) is acceptable.
8. The operator shall notify the Authorized Officer 24 hours prior to seeding and shall provide evidence of certification of the above seed mix to the Authorized Officer. The operator shall provide the BLM with a record of dates of seeding, rates of seed applications and seed tags for each seeding operation within 60 days.
9. Areas being reclaimed will be fenced to exclude livestock until the seeded species have established. The type of fencing will be approved by the Authorized Officer.
10. Refer to Appendix I, Surface Reclamation, in the Draft SEIS for Oil and Gas Leasing Development (pages I-1 through I-8) for specific reclamation goals, objectives, timelines, measures and monitoring methods. These guidelines will be applied in completing the reclamation of disturbed surfaces on well pads, access roads, and pipelines.
11. If it is determined by the Authorized Officer that the above reclamation standards are not being met, the operator will be required to submit a plan to correct the problem. Approval of the plan may require special reclamation practices such as mulching, the method and time of planting, the use of different plant species, soil analysis to determine the need for fertilizer, fertilizing, seed-bed preparation, contour furrowing, watering, terracing, water barring, and the replacement of topsoil.
12. All State and Garfield County noxious weeds introduced due to soil disturbance associated with the proposed lease operations, will be treated promptly by methods to be approved by the Authorized Officer. A Pesticide Use Plan (PUP) is required prior to use of any pesticide.
- 13.. Place production facility and equipment on the northwest corner of pad to reduce visibility from I-70. Paint color to used on a facilities is Desert Tan.
14. Access road at BLM boundary will be graveled. Culverts in road crossings of drainages are required to pass a 25 year 6 hour storm event and installed during no flow or low flow conditions.
15. Historic, Archaeological and Paleontological:

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic, archaeological, paleontological, or sites with scientific value or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the Authorized Officer.

#### Education

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 artifacts, the person or persons will be subject to prosecution.

#### Discovery

Pursuant to 43 CFR 10.4(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 43 CFR 10.4(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, its 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 USC 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 operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
- a time frame for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that 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 material 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 operator will be allowed to resume construction.

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

Antiquities, historic, prehistoric ruins, paleontological 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 that are related to the authorization activities will be mitigated at the proponent's cost.

Should scientifically important fossils be encountered during operations, contact the BLM immediately and avoid any damage to the resource. If scientifically important fossils are encountered during operation and cannot be avoided, additional mitigation measures may be necessary.

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

CONDITIONS OF APPROVAL  
APPLICATION FOR PERMIT TO DRILL

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

Surface Location: **NESE Sec. 28, T07S, R96W**

<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 No.</u>
<b>SG</b>	<b>43-28</b>	<b>05-045-10959</b>	<b>NESE Sec 28, T07S, R96W</b>	<b>COC-58673</b>	<b>NA</b>

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

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