

**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-140-2005-088 EA.

CASEFILE NUMBER: COC-49513.

PROJECT NAME: Application for Permit to Drill: SG 411-23

LEGAL DESCRIPTION:

Surface: SWNW sec 23 T7S R96W.

Production-zone location: NWNW sec23 T7S R96W.

APPLICANT: Williams Production RMT.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action: Williams Production RMT proposes to directionally drill the SG 411-23 from The existing SG 12-23. The surface is owned by Mary Ann Bosely. A surface use agreement is in place.

No Action Alternative: The proposed action affects federal subsurface minerals encumbered with federal oil and gas leases granting the lessee the right to explore and develop the oil and gas leases. The No Action Alternative constitutes a denial of the proposed action. Absent a nondiscretionary statutory prohibition against drill, the BLM cannot deny the right to drill and develop the leasehold. Only congress can completely prohibit development activities. Overall, the No Action Alternative has been considered but eliminated from analysis due to existing lease rights involved.

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, as modified to drop the locations that do not conform to the lease stipulations, 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. The five standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, the impact analysis must address whether the proposed action or any alternatives being analyzed would result in impacts that would maintain, improve, or deteriorate land health conditions for that specific parameter. These analyses are located in specific elements listed below:

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: The proposed action area (Garfield County) 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 (PM₁₀ and PM_{2.5}), 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 in this document would not likely produce adverse effects to air quality when compared to the Roan Plateau plan.

However, truck traffic during the initial rig-up, well completion, rig-move, and production 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 construction and completion, and production 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-free 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.

Environmental Consequences/Mitigation: 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”. 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: Any addition ground disturbance outside the existing pad will require a cultural resource inventory (per BLM, Colorado State Office, State Archaeologist direction dated 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 population¹.

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.

¹ 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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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 floodplain.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The proposed well would be drilled from the existing SG 411-23 pad. No additional surface disturbance beyond the original disturbance would be required to accommodate drilling of the new well bore. The pad lies in a sagebrush/saltdesert shrub community dominated by shadscale and Wyoming sagebrush. The existing pad has some seeded grass species established at this time. The noxious weeds, whitetop (*Cardaria draba*) and cheatgrass (*Bromus tectorum*) are known to exist in the vicinity of the pad.

Environmental Consequences/Mitigation: Surface-disturbing activities provide a niche for the invasion and establishment of noxious weeds. Since cheatgrass and whitetop are 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 project area is comprised mainly of salt desert shrub with some sagebrush and some scattered pinyon-juniper trees with a sparse grass and forb understory. Given this mix of vegetation, the project areas provide both foraging and nesting habitat for a variety of migratory birds. A few species listed on the U.S. Fish and Wildlife Service's Birds of Conservation Concern list may be present. Within the sagebrush vegetation the sage sparrow and Brewer's sparrow may occur. Within the pinyon-juniper trees the Pinyon Jay, black-throated gray warbler, and the gray vireo may occur.

No raptors are known to nest in the vicinity of the existing well pad. A red-tailed hawk nest is located within 2 miles of the pad. It is likely that a variety of raptors forage on near the proposed activity area.

Environmental Consequences/Mitigation: The proposed action will result in the redisturbance of an existing well pad to accommodate a new directional well bore. No additional ground disturbance will result. It is likely that during pad reconstruction and drilling and completion activities individual birds will be displaced to adjacent habitats due to noise and human presence.

Limited public access into the pad location will reduce some indirect impacts. Raptors should be minimally affected as upland foraging habitat is plentiful in the area.

NATIVE AMERICAN RELIGIOUS CONCERNS

Affected Environment: At present, no Native American concerns are known by the GSFO within the project area and none were identified during the inventory. The Ute Tribes 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 during implementation.

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

Specific to the project location, the area is within ½ mile of bald eagle winter range, and identified roost sites. The project site is also within ½ mile of Designated Critical Habitat for the razorback sucker and Colorado pikeminnow. The project site is within 5 miles of known occurrences of the federally-listed threatened Uinta Basin hookless cactus and appears to contain potential habitat for this species as well as the Candidate plant, DeBeque phacelia, and the BLM Sensitive plant, Adobe thistle.

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: The proposed action would result in the redisturbance of an existing well pad to accommodate a new directional well bore. No additional ground disturbance would result. The project site is located above the 100-year floodplain of the Colorado River and does not contain any riparian habitat. Thus no impacts will occur to the bald eagle, razorback sucker, or Colorado pikeminnow.

A survey of the site for special status plants was conducted on May 4, 2005. No special status plants were found on or adjacent to the existing well pad. Due to the fact that no special status plants were found in the project area and the lack of habitat and species occurrence records for

any special status wildlife, the action will have “No Effect” on federal or state listed species and no impact to BLM Sensitive species.

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

The proposed action will have no impact on the watershed’s ability to meet or maintain Standard 4 for special status, threatened and endangered species.

WASTES, HAZARDOUS OR SOLID: 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:

Affected Environment: The proposed action lies near an ephemeral or intermittent drainage that drains into the Colorado River. Classified uses for the Colorado River below Rifle, are aquatic life cold class 1, recreation class 1a, water supply and agriculture.

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:

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 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.

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. This action is not projected to have any noticeable impacts on groundwater resources within the project area.

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.

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 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:

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).

- Torriorthents-Camborthids-Rock outcrop complex (steep) is a highly variable map unit. Torriorthents soils are described as shallow and moderately deep while Camborthids are shallow to deep soils. The rock outcrop is comprised of Mesa Verde sandstone and Wasatch shale with small pockets of limestone and exposed gypsum. Erosion hazards for this complex are moderate to severe depending on slope. This complex is used for grazing, wildlife habitat (mule deer winter range), and recreation.

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 place 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.

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: The project area is located in salt desert shrub (shadscale and Gardner's saltbush), sagebrush and a small amount of pinyon-juniper habitat. The existing pad has some seeded grasses established.

Environmental Consequences: The proposed SG 411-23 well would be drilled from an existing well pad. No new surface disturbance beyond the disturbance for the original pad would be required to accommodate drilling of the new well bore. The proposed action would result in a long-term loss of vegetation on the portion of the pad needed for ongoing production activities and a short-term loss of vegetation on the portion of the pad not needed for ongoing production activities which would be reseeded following completion of drilling.

With implementation of the following reclamation practices (which will be included as COAs), including reseeding the site with native grasses and shrubs and promptly controlling noxious weeds, 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 1st and May 1st. 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.

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Proper and timely reclamation would help to minimize the potential failure to meet this Standard. The proposed action would result in no additional loss of vegetation and will not contribute to a further decline in land health.

WILDLIFE, AQUATIC (includes an analysis on Standard 3)

Affected Environment: The proposed project area is not located directly near any perennial water sources. However, the Colorado River is located within ½ mile of the existing well pad. The Colorado River in the vicinity of the action area contains a variety of fish and aquatic insects. Fish species present include the flannelmouth sucker, bluehead sucker, roundtail chub, carp, fathead minnow, and an occasional trout.

Environmental Consequences/Mitigation: The well pad sits on relatively flat ground and will be redisturbed to accommodate a new directional well bore. With proper and timely reclamation, no erosion or sedimentation should result from the action. Any minor amounts of sediment will be well within background levels occurring within the Colorado River and will have no impact to native fishes.

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

The proposed action will have no bearing on the watersheds ability to meet or maintain Standard 3 for aquatic wildlife. In the recently completed Land Health Assessment, only Riley Gulch and Cottonwood Gulch were not meeting the Standard.

WILDLIFE, TERRESTRIAL (includes an analysis on Standard 3)

Affected Environment: The existing well pad would be located within salt desert shrub, sagebrush, and juniper vegetation with a sparse understory of grasses and forbs. A variety of wildlife species may be found in the area. The area contains habitat for many species of big game, small game, and nongame mammals, birds, and reptiles. The well pad is located in an area mapped as crucial big game winter range by the Colorado Division of Wildlife.

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. Public access and use of the roads to the well sites will be prevented due to controlled access on private lands. This will minimize disturbance and reduce effective habitat loss. Although the big game winter timing limitation is mapped for the surface location, it will not be enforced due to the surface being privately owned, but rather we will seek voluntary compliance with the timing limitation in order to protect wintering big game in the area.

Mitigation: To protect wintering big game, we are seeking voluntary compliance with the big game winter timing limitation which precludes well pad, road, and pipeline construction, drilling, and all completion activities from December 1 to April 30. A waiver of the last 60-days of the 5 month timing limitation is possible given local weather conditions.

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

The fieldwork portion of the land health assessment was completed in 2004. A determination has not been formalized. However, preliminary results show that much of the area is not meeting Standard 3 for terrestrial wildlife due to habitat fragmentation and human use associated with ever increasing natural gas development. Proper and timely reclamation will help to minimize the potential failure to meet this Standard. The proposed action will result in no additional habitat loss and will not contribute to a further decline in land health.

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

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

fragmentation. Cumulative impacts will be addressed in greater detail in the GAP document 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

Environmental Consequences/Mitigation: Existing road access to the pad is through private surface along the 1-70 service road of the Interstate. 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 sites are 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. 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. The impacts of development are discussed on pages 4-49 through 4-54 of the FSEIS. The proposed action is within the I-70 viewshed.

Environmental Consequences/Mitigation: With no new surface disturbance being proposed and the utilization of the existing pad and access road, the proposed action will create new short term contrasts within the existing landscape during drilling and completion phases. The addition of new facilities will add to the existing long term visual impacts within the landscape and will be moderately visible due to the short duration of viewing time. While the pad is visible from the I-70 corridor it does not dominate the landscape and will meet VRM Class III objectives with the following mitigation.

Mitigation: All above ground facilities should be painted a standard environmental color to match the surrounding landscape as determined on an on site review. In order to screen the facilities from the I-70 viewshed, the facilities should be placed against the cut slope and screened as much as possible while allowing for proper reclamation.

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

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.

PERSONS / AGENCIES CONSULTED:

WestWater Engineering
Sandy Hotard, Senior Landman, Williams Production

INTERDISCIPLINARY REVIEW:

<u>Name</u>	<u>Title</u>	<u>Area of Responsibility</u>
Bill Barter	Natural Resource Specialist	Team Leader
Cheryl Harrison	Archaeologist	Cultural Resources, Native American Religious Concerns
Tom Fresques	Wildlife Biologist	Terrestrial & Aquatic Wildlife, Special Status Wildlife Species
Carla Scheck	Ecologist	Special Status Plants, Vegetation, Noxious Weeds
Bruce Fowler	Geologist	Ground Water/Minerals
Jim Wilkinson	Geologist	Paleontology
Mike Kinser	Rangeland Management Specialist	Riparian
Marty O'Mara	Petroleum Engineer	Downhole Conditions of Approval
Brian Hopkins	Community Planner	Transportation, Recreation
Kay Hopkins	Outdoor Recreation Planner	Visual Resources
Mark Wimmer	Rangeland Management Specialist	Soil, Water and Air
Mike McGuire	Rangeland Management Specialist	Range

FONSI

CO-140-2005-088 EA

Application for Permit to Drill: SG 411-23

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 SG 411-23 on the existing SG 12-23 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.

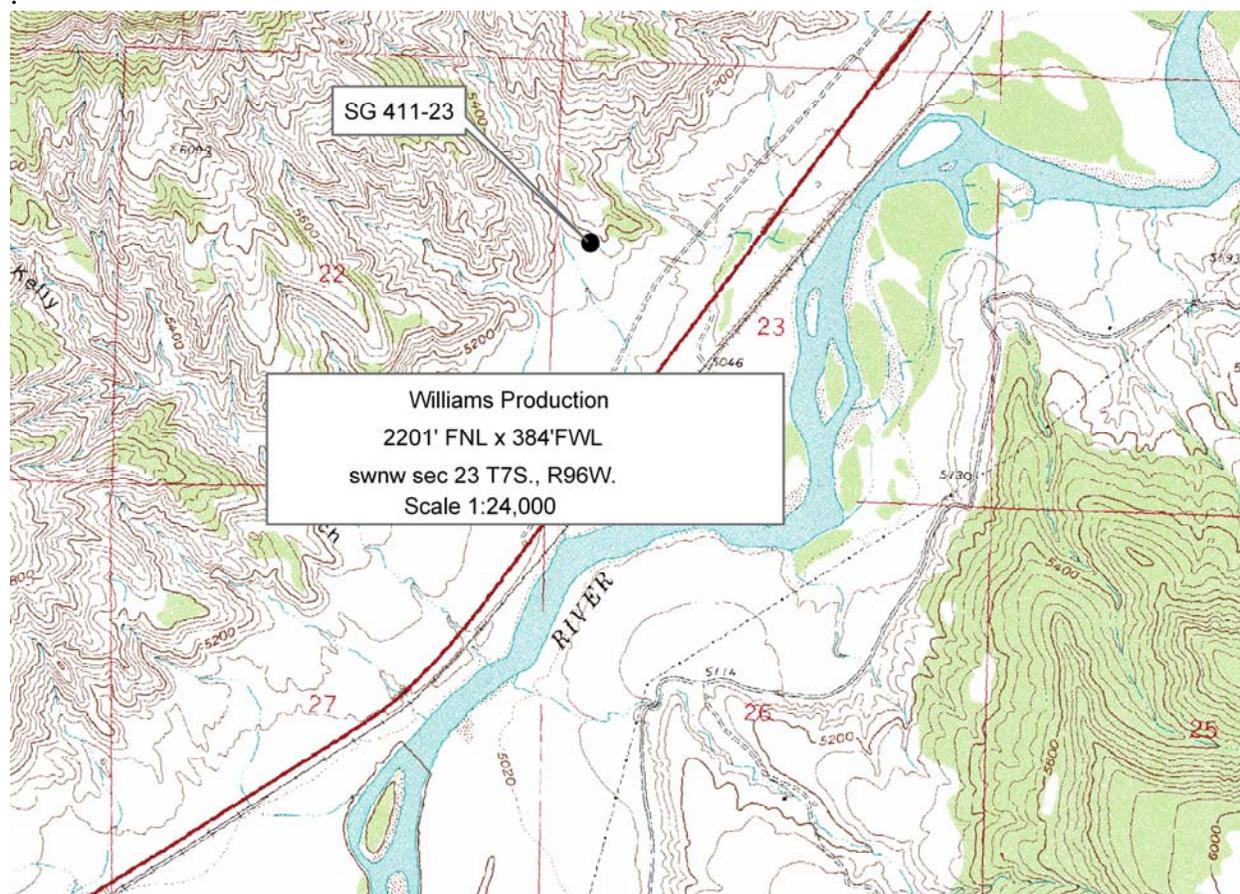
NAME OF PREPARER: Bill Barter, Natural Resource Specialist

SIGNATURE OF AUTHORIZED OFFICIAL:


Authorized Officer

DATE SIGNED: DEC 21 2005

ATTACHMENTS: Map, Conditions of Approval.



CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

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

Surface Location: **SWNW Sec. 23, 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>
SG	411-23	05-045-10804	NWNW Sec 23, T07S, 96W	COC-49513	COC- 53525

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.

Surface Conditions of Approval

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 Tawn (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 800.11, or any agreements in lieu thereof, to confirm through the State Historic Preservation Officer that the findings of the authorized officer are correct and the mitigation is appropriate.

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

Antiquities, historic 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 (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

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.

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