

U.S. Department of the Interior
Bureau of Land Management
Little Snake Field Office
455 Emerson Street
Craig, CO 81625-1129

ENVIRONMENTAL ASSESSMENT

EA-NUMBER: CO-100-2007-025 EA

CASEFILE/PROJECT NUMBER/LEASE NUMBER: COD040867

PROJECT NAME: Hal Stewart Well #5

LEGAL DESCRIPTION: NWNE Section 32, T12N, R97W, 6th PM

APPLICANT: Wexpro Company

PLAN CONFORMANCE REVIEW: The proposed action is subject to the following plan:

Name of Plans: Little Snake Resource Management Plan and Record of Decision (ROD) approved on April 26, 1989; and the Colorado Oil and Gas Leasing & Development Environmental Impact Statement (EIS) and the ROD signed on November 5, 1991.

Remarks: The proposed Hal Stewart Well #5 would be located within Management Unit 2 (Little Snake Resource Management Plan). One of the objectives of Management Unit 2 is to provide for the development of the oil and gas resource. The development of other resource uses/values within this unit is allowed consistent with the management objectives for oil, gas, and forest resources.

The proposed action was reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3). The proposed action is in conformance with the objectives for this management unit.

NEED FOR PROPOSED ACTION: To provide for the development of oil and gas resources and to supply energy resources to the American public.

PUBLIC SCOPING PROCESS: The Notice of Staking (NOS) has been posted in the public room of the Little Snake Field Office for a 30-day public review period beginning April 18, 2007 when the NOS was received, and may be viewed during regular business hours (7:45 a.m. to 4:30 p.m.), Monday through Friday, except holidays.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES: The proposed action is to approve the Application for Permit to Drill (APD) submitted by Wexpro Company. Wexpro Company proposes to drill a gas well on BLM administered land located in the Powder Wash field in the NWNE Section 32, T12N, R97W. An APD has been filed with the LSFO for the Hal Stewart Well #5. The APD includes drilling and surface use plans that cover mitigation of impacts to vegetation, soil, surface water, and other resources. Mitigation not incorporated by Wexpro Company in the drilling and surface use plans would be attached by the BLM as Conditions of Approval to an approved APD.

The proposed well would be located approximately 67 miles northwest of Craig, Colorado. Construction work would be planned to start during May of 2007 and the estimated duration of construction and drilling of the well would be 20 days. A new access road of 303 feet would be constructed for the well. Total surface disturbance for road construction would be approximately 0.5 acres. All road construction would be on lease and on BLM surface and would not require a federal Right-of-Way.

The proposed well pad would be cleared of all vegetation and leveled for drilling. Topsoil and native vegetation would be stockpiled for use in reclamation. Approximately 4.0 acres would be disturbed for construction of the well pad. This would include the 408' by 375' well pad, the topsoil, and subsoil piles. A reserve pit would be constructed on the well pad to hold drill mud and cuttings. If a well is a producer, cut portions of the well site would be backfilled and unused portions of the well site would be stabilized and re-vegetated. If a gas well proves unproductive, it would be properly plugged and the entire well pad and access road would be reclaimed.

Wexpro Company did include two proposed pipeline routes for gas sales pipeline with the APD, but only one route would be selected after the well production is established. Either proposed pipeline route would result in less than 0.5 acres of disturbance and would not require a right-of-way as the entire pipeline would be on existing oil and gas leases within the Powder Wash field.

Proposed pipeline #1 would be 400 feet of new pipeline to be buried to a depth of 48 inches across the location. The topsoil would already be stripped during the construction of the location. The proposed pipeline would begin at the Hal Stewart Well #5 and head in an easterly direction approximately 303 feet to a tie-in point at the North Side Compressor.

Proposed pipeline #2 would be 145 feet of new pipeline to be buried to a depth of 48 inches across the location. The topsoil would already be stripped during the construction of the location. The proposed pipeline would begin at the Hal Stewart Well #5 and head in a westerly direction 145 feet to a tie-in point at the existing high pressure gas line.

NO ACTION ALTERNATIVE: The “no action” alternative is that the well would not be permitted and therefore no well would be drilled. Wexpro Company holds a valid and current oil and gas lease for the area where the proposed Hal Stewart Well #5 would be located. Under leasing contracts, the BLM has an obligation to allow mineral development if the environmental consequences are not irreversible or too severe. The APD process is designed to overcome the no action situation of not accepting the APD through the mitigation of predicted environmental

consequences. Since the proposed action is consistent with the ROD and the Oil and Gas Leasing EIS the no action alternative will not be analyzed further in this EA.

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES

CRITICAL RESOURCES

AIR QUALITY

Affected Environment: There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action.

Environmental Consequences: Short term, local impacts to air quality from dust would result during and after well pad construction. Drilling operations would produce air emissions such as exhaust from diesel engines that power drilling equipment. Air pollutants could include nitrogen oxides, particulates, ozone, volatile organic compounds, fugitive natural gas, and carbon monoxide. Gas flaring reduces the health and safety risks in the vicinity of the well by burning combustible and poisonous gases like methane and hydrogen sulfide. The proposed action would not adversely affect the regional air quality.

Mitigative Measures: None

Name of specialist and date: Shawn Wiser 04/23/07

AREA OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer 04/30/07

CULTURAL RESOURCES

Affected Environment: Cultural resources, in this region of Colorado, range from late Paleo-Indian to Historic. For a general understanding of the cultural resources in this area of Colorado, see *An Overview of Prehistoric Cultural Resources, Little Snake Resource Area, Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resources Series, Number 20, *An Isolated Empire, A History of Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resource Series, Number 2 and *Colorado*

Prehistory: A Context for the Northern Colorado River Basin, Colorado Council of Professional Archaeologists.

Environmental Consequences: The proposed project, Hal Stewart #5, has undergone a Class III cultural resource survey:

Darlington, David. 2007. Class III Cultural Resources Inventory for the Wexpro Company Stewart #5 Access Road Reroute, Moffat County, Colorado (BLM #12.24.07).

Darlington, David. 2007. Class III Cultural Resources Inventory for the Wexpro Company Stewart #5 Well Pad and Access Road, Moffat County, Colorado (BLM #12.20.07).

The survey identified no eligible to the National Register of Historic Places cultural resources. The proposed project may proceed as described in this EA with the following mitigative measures in place.

Mitigative Measures:

The following standard stipulations apply for this project:

1. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the authorized officer (AO) at (970) 826-5000. Within five working days, the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again; and
- Pursuant to 43 CFR 10.4(g) (Federal Register Notice, Monday, December 4, 1995, Vol. 60, No. 232) the holder of this authorization must notify the AO, by telephone at (970) 826-5000, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

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

Name of specialist and date: Robyn Watkins Morris 05/30/07

ENVIRONMENTAL JUSTICE

Affected Environment: The project would not directly affect the social, cultural, or economic well being and health of Native American, minority or low-income populations. The project area is relatively isolated from population centers, so no populations would be affected by physical or socioeconomic impacts from the project.

Environmental Consequences: None

Mitigative Measures: None

Name of Specialist and Date: Louise McMinn 04/25/07

FLOOD PLAINS

Affected Environment: Active floodplains and flood prone zones are avoided.

Environmental Consequences: No threat to human safety, life, welfare, or property would result from the proposed action.

Mitigative Measures: None

Name of specialist and date: Shawn Wiser 04/23/07

INVASIVE, NONNATIVE SPECIES

Affected Environment: Invasive species and noxious weeds occur within the affected area. Cheatgrass and halogeten are common along road disturbances and in areas which do not have adequate perennial plant communities to inhibit their annual establishment. Halogeten has become a very noticeable problem in the affected area, as well as other areas in the western portion of Moffat County. Canada thistle and other biennial thistles are fairly common and can be established in the affected area, especially in road ditches. Russian knapweed and hoary cress (whitetop) have been found in the vicinity of the project and would also be capable of establishing in road ditches and upland sites. Other species of noxious weeds are not known to be a problem in this area, but they can be introduced by vehicle traffic, livestock operations and wildlife. The BLM, Moffat County, livestock operators, pipeline companies and oil and gas operators have formed the Northwest Colorado Weed Partnership to collaborate their efforts on controlling weeds and finding the best integrated approaches to achieve these results.

Environmental Consequences: The surface disturbing activities and associated traffic involved with constructing the access road, drilling and operating the well, installing pipeline and other subsequent activities would create an environment and provide a mode

of transport for invasive species and other noxious weeds to become established. Construction equipment and any other vehicles and equipment brought onto the site could introduce these weed species. Wind, water, recreation and construction vehicles, livestock and wildlife would also assist with the distribution of weed seed into the newly disturbed areas. The operator would be required to control any invasive and/or noxious weeds that become established within the disturbed areas involved with drilling and operating the well. The size of the disturbed area would be the only difference between the alternative pipeline routes and either route would be equally exposed to invasion by invasive or noxious weeds. All principles of Integrated Pest Management would be employed to control noxious weeds on public lands.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 04/27/07

MIGRATORY BIRDS

Affected Environment: Brewers sparrow and sage sparrows are two birds listed on the U.S. FWS's 2002 Birds of Conservation Concern list that could be found within the project area.

Environmental Consequences: It is unlikely that either species would choose to nest within the project area because of an existing compressor station near by. Construction and drilling activities that are conducted outside of the nesting season would not impact either species. If conducted during the nesting season (May – August) there would be a slight chance a nest could be present and impacted by these activities. Chance of take is low.

Recent studies have indicated that birds have entered heater treater facilities through open vents. Birds have been entrapped and have died in these facilities as a result of gasses held in the facilities.

Mitigative Measures: All open vent stack equipment such as heater treaters, separators, dehydration units, and flare stacks would be designed and constructed to prevent birds and bats from entering or nesting in or on such units, and to the extent practical, to discourage birds from perching on the stacks.

Name of specialist and date: Timothy Novotny 06/01/07

NATIVE AMERICAN RELIGIOUS CONCERNS

A letter was sent to the Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Ute Tribal Council, and the Colorado Commission of Indian Affairs on January 21, 1999. The letter listed the projects that the BLM would notify them on and projects that would not require notification. No comments were received (Letter on file at the Little Snake Field Office). This project requires no additional notification.

Name of specialist and date: Robyn Watkins Morris 05/30/07

PRIME & UNIQUE FARMLANDS

Affected Environment: Not Present

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Shawn Wiser 04/23/07

T&E SPECIES – ANIMALS

Affected Environment: There are no threatened, endangered or special status species or habitat for such species present in the project area.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Timothy Novotny 06/01/07

T&E SPECIES – PLANTS

Affected Environment: There are no federally listed threatened or endangered plants within or in the vicinity of the Proposed Action.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 04/26/07

T&E SPECIES - SENSITIVE PLANTS

Affected Environment: There are no BLM sensitive plant species within or in the vicinity of the Proposed Action.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 04/26/07

WASTES, HAZARDOUS OR SOLID

Affected Environment: If a release does occur, the environment affected would be dependent on the nature and volume of material released. If there are no releases, there will be no impact on the environment.

Environmental Consequences: Consequences will be dependent on the volume and nature of the material released. In most every situation involving hazardous materials, there are ways to remediate the area that has been contaminated. Short-term consequences will occur, but they can be remedied, and long-term impacts will be minimal.

Mitigative Measures: None

Name of specialist and date: Shawn Wiser 04/23/07

WATER QUALITY – GROUND

Affected Environment: Fresh water within the Wasatch Formation may occur. Water within the Wasatch Formation in existing wells within the project area ranges from 1,402 ppm TDS to 30,599 ppm TDS. Potable water is highly unlikely in this area. Fresh water zones must be protected or isolated when encountered.

Environmental Consequences: With the use of proper construction practices, drilling practices, and with best management practices no significant adverse impact to groundwater aquifers and quality would be anticipated to result from the proposed action. A geologic and engineering review was performed on the 8-point drilling plan to ensure that the cementing and casing program adequately protects the downhole resources.

Mitigative Measures: None

Name of specialist and date: Jennifer Maiolo 04/30/07

WATER QUALITY/HYDROLOGY – SURFACE

Affected Environment: The proposed Hal Stewart Well #5 would be constructed near Ace in the Hole Draw, an ephemeral drainage. Any runoff from the well pad, pipeline, or access road would drain towards the Ace in the Hole Draw, which drains into Powder Wash. All stream segments near the well pad location are presently supporting classified beneficial uses. No impaired stream segments occur in the vicinity of the proposed action.

Environmental Consequences: Runoff water from the well site would drain towards Powder Wash, which is an ephemeral tributary to the Little Snake River. Increased sedimentation to Powder Wash during spring runoff or from high intensity rainstorms would be the most likely environmental consequence from the proposed action. Although some sediment may be transported off site and eventually reach perennial waters, the mitigation provided in the Surface Use Plan and the Conditions of Approval would reduce the potential impacts caused by surface runoff.

Mitigative Measures: None

Name of specialist and date: Shawn Wiser 04/23/07

WETLANDS/RIPARIAN ZONES

Affected Environment: There are no wetlands or riparian areas present in or around the proposed project site.

Environmental Consequences: None

Mitigative Measures: None

Mitigative Measures: Timothy Novotny 06/01/07

WILD & SCENIC RIVERS

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer 04/30/07

WSAs, WILDERNESS CHARACTERISTICS

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer 04/30/07

NON-CRITICAL ELEMENTS

FLUID MINERALS

Affected Environment: The proposed action is in favorability zone 4 (highest for oil and gas potential). This well would penetrate the Wasatch, Fort Union, Lance, Lewis Shale, and Mesaverde Formations. Bituminous coal seams with more than three thousand feet of overburden can be found throughout the Mesaverde (Almond) and Ft. Union Formations, and in a lesser amount the Lance Formation. Shallower thin beds of bituminous coal can be found in the Wasatch Formation as well. Their mineable value is low, but they may be valuable coal bed methane reservoirs and must be protected or isolated where encountered. It should be noted that the hydrology for coal bed methane production within the Sand Wash geologic basin is unfavorable even though the gas resource is large (Scott, et al., 1995). The Mesaverde (Almond) in this area is mainly coastal swamp and lagoon deposits with two transgressive shoreline deposits pinching out in a northwesterly direction near the top of the formation. Coal beds are non-existent in this area within the Ericson Formation. The top third (Canyon Creek Member) and bottom third (Trail Creek Member) of the Ericson Sandstone are coastal-plain fluvial deposits of crossbedded sandstones.

Environmental Consequences: The proposed casing and cementing program appears to be adequate to protect and/or isolate all resources identified above with casing and cement behind pipe from TD to the surface.

Mitigative Measures: None

Name of specialist and date: Jennifer Maiolo 04/30/07

PALEONTOLOGY

Affected Environment: The geologic formation at the surface is the Tertiary Age formation, Wasatch Formation, Cathedral Bluffs Tongue (Twc), a variegated claystone, mudstone and sandstone formation. This formation has been classified a Class II formation for the potential for occurrence of scientifically significant fossils.

Environmental Consequences: Scientifically significant fossils are occasionally found within this formation (Armstrong & Wolney, 1989). The potential for discovery of significant fossils on this location is considered to be moderate. If any such fossils are located here, construction activities could damage the fossils and the information that could have been gained from them would be lost. The significance of this impact would depend upon the significance of the fossil. Ceasing operations and notifying the Field Office Manager immediately upon discovery of a fossil during construction activities can effectively mitigate this impact. An assessment of the significance would be made and a plan to retrieve the fossil or the information from the fossil is developed.

The proposed action could also constitute a beneficial impact to paleontological resources by increasing the chances for discovery of scientifically significant fossils.

Mitigative Measures: "Standard Discovery Stip", i.e., "If fossils are discovered during construction or other operations, all activity in the area will cease and the Field Office Manager will be notified immediately. An assessment of significance will be made within an agreed time frame. Operations will resume only upon written notification by the Authorized Officer."

References

Armstrong, Harley J. and Wolney, David G., 1989, Paleontological Resources of Northwest Colorado: A Regional Analysis, Museum of Western Colorado, Grand Junction, CO, prepared for Bur. Land Management, Vol. I of V.

Miller, A.E., 1977, Geology of Moffat County, Colorado, Colo. Geol. Surv. Map Series 3, 1:126,720.

Name of specialist and date: Jennifer Maiolo 04/30/07

REALTY AUTHORIZATIONS

Affected Environment: The project route would cross or would be adjacent to 7 existing realty pipeline authorizations (COC44217, COC44228, COC45794, COC50002WY, COC50069, COC65406, COC0128058).

Environmental Consequences: Existing pipelines could be accidentally damaged during construction activities. Impacts would be temporary until the damage is repaired.

Mitigative Measures: Damage to existing pipelines would be minimized by:

- Utilize the "One Call" system to locate and stake the centerline and limits of all underground facilities in the area of proposed excavations.
- Provide 48 hour notification to the owner/operator of facilities prior to performing any work within 10 feet of buried or above ground pipelines.

Name of Specialist and Date: Louise McMinn 04/25/2007

SOILS

Affected Environment: The proposed Hal Stewart Well #5 would be located within the Tresano-Hiatha-Kandaly association loam soil-mapping unit. These very deep soils are well drained and found on hills, toe slopes, and alluvial fans. Slopes within this unit average 2 to 20 percent. These soils formed in alluvium derived from sandstone and shale. Runoff is rapid and the hazard of wind and water erosion is moderate to high.

Environmental Consequences: The construction and operation of the Hal Stewart Well #5 would affect soils within and immediately adjacent to the proposed area of disturbance. Increased soil erosion from wind and water would occur during construction of the well pad, pipeline, and access road. Erosion would continue throughout the operational life of the wells. Loss of topsoil, soil compaction, and possible increases in sediment loads to drainages are impacts most likely to occur.

Vegetation and soil would be removed from approximately 5.0 acres of land. Soil productivity would decline due to reduced soil microbial activity, impaired water infiltration, mixing of soil horizons, top soil loss, and introduction of weeds. Soil loss from construction would be greatest shortly after project start and would decrease in time as a result of stabilization through revegetation and reclamation of disturbed areas. Soil erosion would be reduced to an acceptable level with the mitigation described in the Surface Use Plan and Conditions of Approval in the approved APD. This mitigation will reduce the potential to have excessive sediments and salts in runoff water from the well site.

Mitigative Measures: Additional mitigative measures will be employed to prevent or reduce accelerated erosion if it begins to occur within or on constructed drainage and diversion ditches or surface drainages affected by the road or well pad.

Name of specialist and date: Shawn Wiser 04/23/07

UPLAND VEGETATION

Affected Environment: The proposed well would be located in a sagebrush-grass/salt desert plant community. Dominant species present include Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), budsage, (*Picrothamnus desertorum*), Nuttall's saltbush (*Atriplex nuttallii*), green rabbitbrush (*Chrysothamnus vicidiflorus*), winterfat (*Euphorbia lanata*), Indian ricegrass (*Oryzopsis hymenoides*), squirreltail (*Sitanion hystrix*), basin wildrye (*Leymus cinereus*) and Sandberg bluegrass (*Poa sandbergii*). Due to time of year and amount of snow cover, no forbs were seen although Hood's phlox (*Phlox hoodii*), longleaf phlox (*P. longifolia*), various *Aster* spp., desert parsely (*Lomatium* spp.), scarlet globemallow (*Spheralcea coccinea*), and desert buckwheat (*Eriogonum* spp.) are likely to be present. Sagebrush is quite abundant on this site and the individual plants exhibited fairly

good vigor. The sagebrush is more abundant along the drainages. Halogeton (*Halogeton glomeratus*) and cheatgrass (*Bromus tectorum*) are two exotic, invasive annuals that are present in relatively high abundance.

Environmental Consequences: The proposed action would remove approximately 5.0 acres of native vegetation for the well, associated pipeline, and access road. This removal would be minor in the larger plant community. All or part of the area disturbed could be reclaimed in the short term if the well fail to produce, but if the well produces, a portion of the total disturbance would be reclaimed as the drilling pad would be shrunk down after well completion. The developed access road would remain if the well is a producing well. In the long term, after the life of the producing well has ended, all disturbances would be reseeded to native vegetation per the drilling and surface use plans. As evidenced by the plant community in its pre-disturbance state, this site is highly susceptible to halogeton invasion. It would be imperative that all COAs regarding weed control and revegetation are followed to avoid increasing halogeton presence on and in areas surrounding the Proposed Action. As long as weeds are controlled and all disturbed areas are reseeded to prescribed mixes of native plant species and establishment is ensured as required, the negative impacts to the native plant communities would be effectively mitigated.

Mitigative Measures: None

Name of specialist and date: Kathy McKinstry 05/03/07

WILDLIFE, TERRESTRIAL

Affected Environment: The proposed project area is mapped as year round habitat for mule deer and pronghorn antelope. The area does not provide critical winter habitat that is capable of supporting either species during hard winters. The project area surrounding the Hal Stewart #5 well is heavily developed with oil and gas infrastructure. An existing compressor station is located near the proposed well site. A variety of small mammals, reptiles and song birds may also be found within the project area.

Environmental Consequences: Most of the mule deer and pronghorn antelope would choose to avoid the project area due to heavy human activity that is associated with oil and gas production in the area. A few individuals that are accustomed to the heavy activity likely use the project area. The development of this well would result in the loss of approximately five acres of habitat. This in itself is not sufficient to impact mule deer or pronghorn antelope. Cumulatively, every well that is placed in this area would likely further reduce the suitability of this area for both species.

Small mammals such as rabbits do not appear to have been impacted by the development which has occurred in the project area. Construction activities associated with access road and well pad development could result in the entrapment and death of burrowing mammals and reptiles. If conducted during the nesting period (February – August) these activities

could result in nest abandonment or destruction. This would not result in any negative impacts to any species populations.

Mitigative Measures: None

Name of specialist and date: Timothy Novotny 06/01/07

OTHER NON-CRITICAL ELEMENTS:

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Forest Management	SW 04/23/07		
Hydrology/Ground			JAM 4/30/2007
Hydrology/Surface		SW 04/23/07	
Paleontology			JAM 4/30/2007
Range Management		KM 05/03/07	
Realty Authorizations			LM 04/25/07
Recreation/Transportation		RS 4/30/07	
Socio-Economics		LM 04/24/07	
Solid Minerals		JAM 04/30/02	
Visual Resources		RS 4/30/07	
Wild Horse & Burro Mgmt	SW 04/23/07		
Wildlife, Aquatic	TN 06/01/07		

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts may result from the development of the Hal Stewart Well #5 when added to non-project impacts that result from past, present, and reasonably foreseeable future actions. The potential exists for future oil and gas development throughout the Powder Wash Field. Currently numerous producing wells exist within a one-mile radius of the proposed well. Other past or existing actions near the project area that have influence on the landscape are wildfire, recreation, hunting, grazing, and ranching activities.

Surface disturbance associated with oil and gas activity would increase the potential for erosion and sedimentation. Displacement of hunters and recreationists during the short-term construction and drilling periods would occur. Contrasts in line, form, color, and texture from development would impact the visual qualities on the landscape.

Cumulative impacts to the plant communities within the gas lease and adjacent areas include an incremental reduction of continuity in the plant communities in terms of acreages that remain undisturbed. Loss of continuity results in smaller and smaller areas of undisturbed native vegetation and the potential for loss of integrity within the larger plant community. Fragmented

plant communities can lose resilience to natural and man-made disturbance due to isolation of areas from seed sources necessary for proper age class distribution of plants, and subsequently, a greater opportunity for stressors such as drought to have a more severe impact on the plant community as a whole. The increased disturbance also makes native plant communities more susceptible to invasion by annual weeds as vectors for increasing weeds. Even with weed control measures applied, the potential for weeds to move further into undisturbed remnant areas increases as these remnants become smaller and more isolated from larger undisturbed areas.

Cumulative impacts to the livestock grazing operations in the area are also increased through the Proposed Action. The grazing allotment in which these wells are proposed is primarily a winter sheep allotment. The growth in wells, roads, and human activity has reduced the availability of forage in this area far beyond direct impacts caused by construction. Halogeton which has increased among the new roads and well pads is toxic to sheep. The resulting impact to grazing activities permitted in the area is a loss of available Animal Unit Months (AUMs), i.e. a loss of the amount of livestock that the allotment can reasonably carry. Due to recent years of drought, the livestock operator has only lightly used this allotment, so direct impacts to grazing activities have not been fully felt.

Habitat fragmentation from well pad construction and the associated roads have likely decreased the nesting suitability for migratory birds in Powder Wash. Ingelfinger (2001) found that roads associated with oil and gas development have a negative impact on passerines bird species. Bird densities were reduced within 100m of each road. Due to the amount of new road construction and an increase in traffic on these roads, passerine populations in the area are likely decreasing.

The cumulative impacts of additional wells and roads in the Powder Wash field would continue to degrade habitat for the greater sage grouse. Fragmentation, mostly due to road construction, is an important factor contributing to a decrease in habitat quality. Disturbances such as higher traffic volume and other human activities also contribute to degradation of habitat quality. However, as the area is not used for nesting, brood rearing, or wintering, these impacts would be less severe. Continued oil and gas development would lead to decreased sage grouse use of the habitat.

Although big game species are able to adapt to disturbances better than other wildlife, increased development would still have impacts to mule deer and antelope. Timing stipulations adequately protect big game species during critical times of the year; however, continued oil and gas development would lead to decreased use of the habitat due to increased human activity. A significant amount of vehicle traffic occurs with oil and gas development. Impacts to big game may be vehicle-animal collisions, as these are a major cause of mortality for big game species.

References:

Ingelfinger, F. 2001. The Effects of Natural Gas Development on Sagebrush Steppe Passerines in Sublette County, Wyoming. University of Wyoming, Laramie, WY.

STANDARDS:

PLANT AND ANIMAL COMMUNITY (animal) STANDARD: The proposed project area provides marginal habitat for a variety of wildlife species. Heavy oil and gas development in the project area has diminished habitat quality in the surrounding area. The area is still capable of supporting some limited wildlife activity. The development of this well would result in the loss of approximately five acres of habitat. This will not impact any species populations. This project would not prevent this standard from being met.

Name of specialist and date: Timothy Novotny 06/01/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal) STANDARD: There are no threatened, endangered or special status species or habitat for such species present in or near the project area. This standard does not apply.

Name of specialist and date: Timothy Novotny 06/01/07

PLANT AND ANIMAL COMMUNITY (plant) STANDARD: The Proposed Action would completely remove existing vegetation. As long as the COAs concerning revegetation and weed control are faithfully adhered to, the native plant community would eventually return, weeds could be kept in check, and thus meet this standard.

Name of specialist and date: Kathy McKinstry 05/03/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant) STANDARD: There are no federally listed threatened or endangered or BLM sensitive plant species within or in the vicinity of the Proposed Action. This standard does not apply.

Name of specialist and date: Hunter Seim 04/26/07

RIPARIAN SYSTEMS STANDARD: There are no wetlands or riparian systems present within the project area. This standard does not apply.

Name of specialist and date: Timothy Novotny 06/01/07

WATER QUALITY STANDARD: The proposed action would meet the public land health standard for water quality. Reclamation of the pipeline corridors would be completed immediately after installation to minimize sheet and rill erosion from the corridor. Interim reclamation of the unused area on the well pads will be completed to minimize sheet and rill erosion from the well sites. When the well pads are no longer needed for production operations, the disturbed well pads and access roads would be reclaimed to approximate original contours, topsoil would be redistributed, and adapted plant species would be reseeded. These Best Management Practices would help to reduce accelerated erosion of the site. No stream segments near this project are listed as impaired.

Name of specialist and date: Shawn Wiser 04/23/07

UPLAND SOILS STANDARD: The proposed action would not meet the upland soil standard for land health, and it is not expected to while the well locations, pipelines, and access roads are used for operations. The well pad sites, pipeline corridors, and access roads would not exhibit the characteristics of a healthy soil. Several Best Management Practices have been designed into the project or are attached as mitigating measures that will reduce impacts to and conserve soil materials. Upland soil health will return to the well pad, pipeline corridor, and access road disturbances after reclamation practices and well abandonments have been successfully achieved.

Name of specialist and date: Shawn Wiser 04/23/07

PERSONS/AGENCIES CONSULTED: Uintah and Ouray Tribal Council, Colorado Native American Commission, Colorado State Historic Preservation Office.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
EA CO-100-2007-025

Based on the analysis of potential environmental impacts contained in the EA and all other available information, I have determined that the proposal and the alternatives analyzed do not constitute a major Federal action that would adversely impact the quality of the human environment. Therefore, an EIS is unnecessary and will not be prepared. This determination is based on the following factors:

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests, or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas, or designated Areas of Critical Environmental Concern.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State, or local natural resource related plans, policies, or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.
8. Based on previous and ongoing cultural surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.

9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.

10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

DECISION AND RATIONALE: I have determined that approving the APD is in conformance with the approved land use plan. It is my decision to implement the project with the mitigation measures provided in the Applications for Permit to Drill and the Conditions of Approval. The project will be monitored as stated in the Compliance Plan outlined below.

MITIGATION MEASURES: The mitigation measures for this project are found in the file room of the Little Snake Field Office. The APD 13-point surface use plan, well location maps, and the Conditions of Approval are found in the well case file labeled COD040867A Hal Stewart Well #5.

COMPLIANCE PLAN(S):

Compliance Schedule

Compliance will be conducted during the construction phase and drilling phase to insure that all terms and conditions specified in the lease and the approved APD are followed. In the event a producing well is established, periodic inspections as identified through the Inspection and Enforcement Strategy and independent well observations will be conducted. File inspections will include a review of all required reports and the Monthly Report of Operations will be evaluated for accuracy.

Monitoring Plan

The well location and access road will be monitored during the term of the lease for compliance with pertinent Regulations, Onshore Orders, Notices to Lessees, or subsequent COAs until final abandonment is granted; monitoring will help determine the effectiveness of mitigation and document the need for additional mitigative measures.

Assignment of Responsibility

Responsibility for implementation of the compliance schedule and monitoring plan will be assigned to the Fluid Mineral staff in the Little Snake Field Office. The primary inspector will be the Petroleum Engineering Technician, but the Petroleum Engineer, Natural Resource Specialist, Realty Specialist, and Land Law Examiner will also be involved.

SIGNATURE OF PREPARER:

DATE SIGNED:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED: