

US Department of the Interior Bureau of Land Management

Environmental Assessment UT-080-2008-373
May 15, 2008

Wexpro Company
Proposed Three Clay Basin Unit (CBU) Gas Wells
CBU #66, CBU #67, and CBU #68
UT-080- 08-373

Location: **Daggett County, Utah**
Sections 21 and 26, Township 3 North, Range 24 East,

Applicant/Address: **Wexpro Company**
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CHAPTER 1

INTRODUCTION AND NEED FOR THE PROPOSED ACTION

INTRODUCTION

This Environmental Assessment (EA) has been prepared to analyze Application for Permit to Drill (APD) submitted by Wexpro Company (WC). They have proposed to drill three gas wells: Clay Basin Unit (CBU) #66, CBU #67, and CBU #68. The details of these wells are given below:

<u>Wells Name/Number</u>	<u>Legal Location</u>	<u>Lease Number</u>
CBU #66	NWSE sec. 21, T3N R24E	SL 045051B
CBU #67	NWNE sec. 21, T3N R24E	SL 045051A
CBU #68	NWNE sec. 26, T3N R24E	SL 045049

The project includes about 500 feet of new access roads, three well pads, and three reserve pits (see Table 1). The total disturbance is approximately 10.73 acres. The wells would be constructed and drilled after approval of the APD. An approved APD is valid for two years; however, the operator can apply for another two year extension if necessary. The proposed wells would be located on land that is administered by the Vernal Field Office (VFO) of the Bureau of Land Management (BLM).

The EA is a site-specific analysis of potential impacts that could result with the implementation of a proposed action or alternatives to the proposed action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. "Significance" is defined by NEPA and is found in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI). A Decision Record, which includes a FONSI statement, is a document that briefly presents the reasons why implementations of the proposed action will not result in "significant" environmental impacts (effects) beyond those already addressed in the Diamond Mountain Resource Management Plan (RMP), 1994. If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record may be signed for the EA approving the alternative selected.

PURPOSE OF THE PROPOSED ACTION

The purpose for the proposed action is for Wexpro Company to develop its federal lease by drilling three natural gas wells and, if successful, producing commercial quantities of gas from the lease.

NEED FOR THE PROPOSED ACTION

The need for private exploration and production from federal oil and gas leases is an integral part of BLM's oil and gas leasing program under authority of the Mineral Leasing Act of 1920, as amended by the Federal Land Policy and Management Act of 1976, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. The BLM oil and gas leasing program encourages development of domestic oil and gas reserves and the reduction of U.S. dependence on foreign energy sources. BLM will consider approval of the proposed drilling in a manner that avoids or minimizes impact on other resources and activities.

CONFORMANCE WITH BLM LAND USE PLAN(S)

The proposed wells and related facilities would be in conformance with the Vernal field Office RMP/ROD (October 31, 2008) and the terms of lease(s). The RMP/ROD decision allows leasing of oil and gas while protecting or mitigating other resource values (RMP/RODp. 96-98). The Minerals and Energy Resource Management Objectives encourage the drilling of oil and gas wells by private industry (RMP/RODp. 96). It has been determined that the proposed action and alternative(s) would not conflict with other decisions throughout the plan.

RELATIONSHIPS TO STATUTES, REGULATIONS AND OTHER PLANS

The subject lands were leased for oil or gas development under authority of the Mineral Leasing Act of 1920, as modified by the Federal Land Policy and Management Act of 1976, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. The lessee/operator has the right to explore for oil and gas on the lease as specified in 43 CFR 3103.1-2, and if a discovery is made, to produce oil and/or natural gas for economic gain.

There are no comprehensive State of Utah plans for the vicinity of the proposed action. The State of Utah School and Institutional Trust Lands Administration (SITLA) have leased much of the nearby state lands for oil and gas production. Because the objectives of SITLA are to produce funding for the state school system, and because production on Federal leases could further interest in drilling on state leases in the area, it is assumed that the alternatives analyzed, except the No Action Alternative, are consistent with the objectives of the state.

The proposed drilling is consistent with the *Daggett County General Plan, 2005 (Plan)* that encompasses the location of the proposed wells. In general, the Plan indicates support for development proposals such as the proposed action through the Plan's emphasis of multiple-use public land management practices, responsible use and optimum utilization

CHAPTER 2 DESCRIPTION OF ALTERNATIVES

INTRODUCTION

This chapter presents the Proposed Action Alternative, as submitted by Wexpro Company, the No Action Alternative, and Directional Drilling Alternatives. However, directional drilling technology cannot be used in all situations and is most commonly used when developing a known field or an area already in production. This drilling technique has also been used in recent years to avoid impact to sensitive resources; avoid complex topographic features; and to develop previously unreachable spacing. The proposed wells locations would be considered as a base for future directionally drilled wells. For more discussion on directional drilling, see page 7. No additional alternatives for this project were considered in detail by the BLM.

PROPOSED ACTION ALTERNATIVE

The following table summarizes the maximum proposed site dimensions and disturbance. Each item is discussed in greater detail in the following subsections.

Table 1: Maximum Proposed Site Dimensions

<i>Wells ID</i>	<i>Location</i>		<i>Reserve Pit</i>		<i>Access Road</i>		<i>Pipelines</i>		<i>Total</i>
	<i>ft</i>	<i>acres</i>	<i>ft</i>	<i>acres</i>	<i>ft</i>	<i>acres</i>	<i>ft</i>	<i>acres</i>	<i>acres</i>
CBU #66	420 X 270	2.60	220 X 170	0.86	130	0.10	955	surface	3.56
CBU #67	420 X 270	2.60	220 X 170	0.86	20	0.01	52	surface	3.47
CBU #68	420 X 270	2.60	220 X 170	0.86	350	0.24	2059	surface	3.70
TOTAL	-	7.80	-	2.58	500	0.35	3066	-	10.73

Access: The project includes about 500 feet of new access road. Total new surface disturbance to the land from the access roads would be approximately 0.35 acres. The access roads would be crowned, ditched, and constructed with a running surface of 18 feet and a maximum disturbed width of 30 feet. Graveling or capping the roadbed would be performed as necessary to provide a well constructed, safe road.

Surface disturbance and vehicular traffic would be limited to the proposed location and proposed access route. Any additional area needed would be approved in advance. All construction shall be in conformance with the standards outlined in the BLM and Forest Service publication: *Surface Operating Standards for Oil and Gas Exploration and Development* (2007).

The road surface and shoulders would be kept in a safe and usable condition and would be maintained in accordance with the original construction standards. All drainage ditches would be kept clear and free-flowing and would be maintained according to original construction

standards. The access road surface would be kept free of trash during operations. All traffic would be confined to the approved disturbed surface. Road drainage crossings would be designed so they would not cause siltation or accumulation of debris in drainage crossings, nor would the drainages be blocked by the road bed. Erosion of drainage ditches by runoff water would be prevented by diverting water off at frequent intervals by means of cutouts. Should mud holes develop, they would be filled in with natural soil or gravel and detours around them avoided. When the snow would be removed from the road during the winter months, the snow would be pushed outside of the borrow ditches, and the turnouts kept clear so that snowmelt would be channeled away from the road.

Pipeline: Approximately 3,066 feet of surface, gas pipeline (3.5" O.D.), with projected maximum operating pressure of 1170 psi would be installed within the access corridors for the well location, follow adjoining roads and would tie into other existing gas pipelines.

Wells Site Layout: For proposed well pad dimensions, refer to Table 1 above. New surface disturbance from three well pads and associated reserve pits would be approximately 10.38 acres. Surface and subsoil materials in the immediate project area would be used for construction. Any necessary gravel would be obtained from a commercial source.

Surface Facilities: All production facilities would be located on the disturbed portion of the well pads and a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike would be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater-treater). It would be constructed of compacted subsoil (impervious), hold 110% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer), above ground structures constructed or installed, including pumping units, would be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee. All facilities would be painted within six months of installation. Facilities which are required to comply with the Occupational Safety and Health Act (OSHA) would be excluded. The requested color is Covert Green (for CBU #66 and CBU #67) and Juniper Green (for CBU #68) as determined during the on-site inspection.

The reserve pits would be constructed on the well pad and would not be located within natural drainages, where flood hazards exist or surface runoff would destroy or damage the pit walls. The reserve pit would be constructed so that it would not leak, break, or allow discharge of liquids. A plastic reinforced liner would be used in the pits. It would be a minimum of 12 mil thick lining, with a felt or straw bedding to cover any rocks. The liner would overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner would be disposed of in the pits. The reserve pit would be fenced on three sides during drilling operations and on the fourth side when the rig moves off location. It would be fenced, and the fence maintained, until the pits would be reclaimed.

Any necessary pits would be properly fenced to protect livestock and prevent wildlife entry. The fence would be maintained until the reserve pits have been backfilled. A 39-inch net wire would be used with at least one strand of barbed wire on top of the net wire. The barbed wire would be 3 inches over the net wire, and the net wire would be no more than 2 inches above the ground. Total height of the fence would be at least 42 inches. Corner posts would be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts would be used between the corner braces. Maximum distance between any two fence posts shall be no greater than 16 feet. All wire would be stretched using a stretching device before attachment to the corner posts.

Water Supply: The source of water supply for the wells would be obtained from Red Creek, State of Utah Water Right # 41-3640, and Utah Water Change Application # t78128. Red Creek is ephemeral tributary of the Green River. Water would also be obtained from a municipal source at Dalbo A-1 Tanks, Rock Springs, Wyoming. Water will be transported with 100-barrel water trucks to the drill sites. The drilling of each well requires approximately 0.75 acre-ft of water (5500 barrels).

T&E Fish and Water Depletion: The U.S. Fish and Wildlife Service (USFWS) has identified four federally listed fish species (Pikeminnow, Humpback Chub, Bonnytail, and Razorback Sucker) that could be affected by water depletion of the Green River from the proposed natural gas wells due to water use for construction and drilling as required in the proposed action.

Water Depletion for these gas wells is based on the use of municipal water source from Rock Springs, Wyoming or from Red Creek, Daggett County, Utah (Water Right # 41-3640 and Change Application # t78128). The water would be diverted from Red Creek, which is ephemeral Green River tributary in section 20, Township 3 North, Range 24 East. This water right was permitted on July 28, 2008. On January 21-22, 1988, the Secretary of the Interior; the Governors of Wyoming, Colorado, and Utah; and the Administrator of the Western Area Power Administration were cosigners of a Cooperative Agreement to implement the "Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin" (Recovery Program) (USFWS 1987). The objective of the Recovery Program was to identify reasonable and prudent alternatives that would ensure the survival and recovery of the listed species while providing for new water development in the Upper Colorado River Drainage Basin.

The water used for this project will be obtained from Rock Springs town municipal water, and Red Creek. The latter is permitted as a new depletion (permitted after January 1988). The Service addresses new and historic depletions differently under the section 7 agreement of March 11, 1993. Historic depletions, regardless of size, do not pay a depletion fee to the Recovery Program.

The Red Creek water source qualifies as water depletion according to explanation found on page 6 of the Programmatic Water Depletion Biological Opinion for Oil and Gas Development, Administered or Permitted by the Bureau of Land Management. Formal consultation with the US Fish and Wildlife Service for this Biological Opinion for water depletion was completed on

July 28, 2006. The BLM is required to submit the following information on water depletion as part of this agreement:

Project name and or applicant name	Wexpro Company
Permit number and or special use authorization	Water Right # 41-3640 and Change Application # t78128
Lease Number	SL 045049, SL 045051A, SI 045051B.
General location and legal description	NWSE and SWNE sec. 20, T3N R24E
Depletion amount	5500 barrels per well
Timing of depletion	Within 1 year
Identify if new or historic depletion	new
Total depletion for the entire year in acre-feet	Up to 9 acre-ft
Total number of APD's approved	3
Total number of wells spudded	3

Hazardous Materials: No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds would be used, produced, stored, transported, or disposed of annually in association with the drilling of these wells. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of in association with the drilling of these wells.

Waste Disposal: Drill cuttings would be contained and buried in the reserve pits. Drilling fluids, including salts and chemicals, would be contained in the reserve pits. Upon termination of drilling and completion operations, the liquid contents of the reserve pit would be removed and disposed of at an approved waste disposal facility within 90 days after drilling is terminated. Any spills of oil, gas, salt water, or other noxious fluids would immediately be cleaned up and removed to an approved disposal site. If adverse weather conditions prevent removal of the fluids from the reserve pit within 90 days, an extension may be granted by Authorized officer upon receipt of a written notice.

A chemical porta-toilet would be furnished with the drilling rig. Garbage, trash, and other waste materials would be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash would be burned on location. All debris and other waste material not contained in the trash cage would be cleaned up and removed from the location immediately after removal of the drilling rig.

Invasive/Noxious Weeds: The operator would control noxious weeds along corridors for roads, pipelines, well sites, or other applicable facilities.

Surface Restoration: Immediately upon well completion, the location and surrounding area would be cleared of all unused tubing, materials, trash, and debris not required for production. Also, any hydrocarbons in the pits would be removed in accordance with 43 CFR 3162.7-1. Before any dirt work associated with location restoration takes place, the reserve pit would be as dry as possible. All debris would be removed. Other waste and spoil materials would be disposed of immediately upon completion of operations. As a Best Management Practice, the reserve pit and the location up to the deadman would be recontoured to the approximate natural

contours. The reserve pit would be reclaimed within 90 days from the date of well completion, weather permitting. To prevent surface water from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit would consist of “mounding” the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively. Upon completion of backfilling, leveling, and re-contouring; the stockpiled topsoil would be spread evenly over the reclaimed area.

Four to six inches of topsoil shall be stripped from the locations and placed as shown on the cut sheet. The topsoil on the well which is producing shall be bedspread over the entire location as soon as construction and drilling operations have been completed, and prior to setting the production equipment. The areas of the well location that is not needed for production operations, including the reserve pit, shall be seeded with the recommended seed mixture given below:

Seed Mixture	Lbs/acre (PLS)
shadscale (<i>Atriplex confertifolia</i>)	3
Gardners saltbush (<i>Atriplex gardneri</i>)	3
needle & thread grass (<i>Hesperostipa comata</i>)	3
Wyoming big sage(<i>Artemisia tridentata</i>)	0.5

If the wells are to be plugged and abandoned, a subsequent report of abandonment would be submitted to obtain the appropriate surface rehabilitation conditions of approval.

The abandoned wells site, roads, and other disturbed areas would be restored, as near as practical, to their original conditions. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified. All disturbed surfaces would be recontoured to the approximate natural contours, with reclamation of the wells pad and access road to be performed as soon as practical after final abandonment. Reseeding operations would be performed after completion of other reclamation operations, and BLM Authorized Officer would recommend final reclamation seed mixture.

Applicant-Committed Environmental Protection Measures:

During the onsite with BLM, the operator committed to the following:

1. Timing restrictions due to mule deer and sage grouse habitat.
The operator will not do any construction or drilling activities at the proposed sites from December 1 – April 30 and March 1- June 30, in order to protect crucial mule deer winter habitat, and sage grouse lek/nesting season respectively.
2. The operator will treat and control all invasive and noxious weeds that are introduced to the proposed sites during the life of the wells.
3. The operator is committed to minimize sedimentation at the point of surface water diversion from the Red Creek tributary. Wexpro has provided information that only a truck driver will pump water directly to his/her truck and drive off. This minimizes the sedimentation effect, and also avoids the possibility of transporting excessive sediment to the Green River drainage.

NO ACTION ALTERNATIVE

BLM would not approve the APDs and Wexpro Company would not be allowed to drill the proposed wells. Water, nutrients, and energy system flows and cycling processes would continue. However, other ongoing land use activities such as livestock grazing, OHV use, and other energy related projects would have the potential to change these processes.

DIRECTIONAL DRILLING ALTERNATIVE

In general, drilling a well directionally results in increased drilling costs due to the larger rig size, which requires larger well pads to accommodate its size, and increased drilling days. In areas where vertical bores are marginally economic, the additional cost of directional drilling could render the well uneconomic. Also, a directional bore would result in higher maintenance costs when compared with vertical well bores, due to the bore angles needed for the vertical penetration of the lenticular, vertically stacked reservoir sands. Maintenance costs increase with the steepness of the bore angle, which is dictated by the depth to the target formation and the horizontal distance between the surface location and the bottom hole location. For directional well bores in general, shallower formations would result in higher maintenance costs relative to deeper formations. Higher costs and the wear on casing within the directional well bore may decrease the overall life of the well(s) as compared to a vertical bore.

Also, no environmental impacts were identified that would make the proposed locations unacceptable. Impacts that were identified have been mitigated through, but not limited to: movement of the proposed locations, timing limitations, and rehabilitation requirements.

CHAPTER 3 AFFECTED ENVIRONMENT

INTRODUCTION AND GENERAL SETTING

The affected environment and environmental consequences of the alternatives were considered and analyzed by an interdisciplinary team as documented in Appendix A. The analysis indicates that resources of concern, including elements of the human environment, are either not present in the project area, or would not be impacted to a degree that requires detailed analysis except for those listed below. The analysis and rationale for this conclusion is provided in Appendix A.

Soils and Vegetation

The soils found at both sites are predominantly sandy clay loams, with gently rolling topography, and some rock outcrops and cliffs in the neighborhood away from the well pads.

The vegetation found at all these sites is very similar: wyoming big sage (*Artemisia tridentata*), prickly pear cactus (*Opuntia sp.*), galleta grass (*Hilaria jamesii*), greasewood (*Sarcobatus vermiculatus*), and gardner saltbush (*Atriplex gardneri*). Clay Basin # 68 also had juniper (*Juniperus monosperma*) surrounding the northern part of the well pad. Cryptobiotic soils which are found in many arid and semiarid climates, and primarily dominated by cyanobacteria, were not observed in the area during onsite.

Invasive and Noxious Weeds

There are no known weed sites in or near the proposed project area. The ground disturbance associated with the proposed action; construction, drilling, and maintenance of the proposed well site, access road, and pipeline throughout the life of the project, may create conditions that are conducive to the introduction or spread of invasive, non-native, or noxious weed species at this location.

Wildlife

The potential wildlife issues for these wells based on Vernal field Office RMP/ROD (October 31, 2008), lease notices and latest available wildlife data. An onsite review was conducted on December 6, 2007. The habitat present within this proposed project area is for big game **mule deer and elk, sage grouse** and other raptors.

Big game

The proposed wells are within crucial mule deer and elk winter habitat. The big game habitat was found to be fairly poor for all three locations during the onsite; except Clay Basin #68 which will be located within a winter range fuel enhancement project area (juniper lop and scatter). The proposed wells are also within the pronghorn antelope crucial year-long range (UDWR).

Sage grouse

These are mainly found on the south side of the Clay Basin. The closest active sage grouse lek found was more than 1.5 miles to the south.

Raptors

The project area is used by a variety of raptors including golden eagles, red-tailed hawks, goshawk and prairie falcon, and burrowing owls. All of these species have been documented using this area, and golden eagles and prairie falcons are considered to be sensitive species. No raptors were found within 0.5 mile of the proposed wells, therefore no impact is expected. This resource will not be carried forward into chapter 4.

Migratory Birds

Several State sensitive song and shore bird species including juniper titmouse, pinyon jay, gray flycatcher, green-tailed towhee, Brewer's sparrow, sage sparrow, sage thrasher and mountain plover could be found in the area during nesting, winter and/or migration. Mountain plovers have only been documented nesting further south along Myton Bench. The other species have nests and/or winter habitat within Browns Park or the juniper breaks north and south of the Green River.

T&E Fish and Water Depletion

The USFWS has identified four federally listed fish species historically associated with the Upper Colorado River Basin, including the Green River, as being within the project area: Colorado pikeminnow, humpback chub, bonytail, and razorback sucker. These fish are federally and state-listed as endangered and have experienced severe population declines due to flow fluctuations, habitat loss or alteration, and introduction of non-native fish species. The Green River and its 100-year floodplain have been designated as Critical Habitat for these four endangered fish species (USFWS 1994).

Three additional species are endemic to the Colorado River Basin, including the Green River: roundtail chub, flannelmouth Sucker and bluehead sucker. The roundtail chub is a state-listed threatened species, while the two suckers have aroused special concern due to declining population numbers and distribution.

Red Creek Watershed ACEC

The proposed project is located within Red Creek Watershed ACEC, which is comprised of 24,600 acres. The ACEC relevant values are primarily crucial big game habitat, sage grouse nesting areas, and highly erodible soils, and raptors.

Sage Grouse

An active lek is located 1.5 miles to the south. The project area contains sage grouse brooding and wintering habitat.

Big Game

The project area has been identified by UDWR as being crucial winter habitat for mule deer and elk.

Highly Erodible Soils of Red Creek

The proposed wells are not on or near the channels and stream banks of Red Creek. All wells are greater than 2 miles away from Red Creek, so no impact is expected. This resource will not be carried forward into chapter 4.

Raptors

No nests for raptors (golden eagles, red-tailed hawks, goshawk and prairie falcon, and burrowing owl) are found within 0.5 mile of the proposed wells, therefore no impact is expected. This resource will not be carried forward into chapter 4.

Water supply

Water for construction and drilling of the proposed wells would be diverted from the Red Creek tributary of the Green River.

CHAPTER 4 ENVIRONMENTAL IMPACTS

INTRODUCTION

This chapter describes the direct and indirect impacts that would be expected to occur upon the implementation of each of the considered alternatives. It also discloses the expected cumulative impacts, which are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions.

DIRECT/INDIRECT IMPACTS OF THE PROPOSED ACTION ALTERNATIVE

Under the proposed action alternative, the following resources would be impacted as documented in Appendix A.

Vegetation and Soils

During construction, the soils on the road and location would be stripped of vegetation. The location soils would be moved around and compacted until the flat wells pad is formed. The proposed action alternative would result in approximately 10.73 acres of disturbance for the access roads, pipelines, and the wells location. The current annual erosion rate is about 1 ton of soil per acre. It is projected that erosion will increase up to three tons per acre during the first year after construction, then average to 1.5 tons per acre over the lifetime of the project. Cryptobiotic soils which are found in many arid and semiarid climates, and primarily dominated by cyanobacteria, were not observed in the area during onsite.

Mitigation:

Upon wells completion, the reserve pit and the location up to the deadmen, would be re-contoured to approximate natural contours, and reseeded. This would reduce the effects of the disturbance by approximately one half because once the vegetation has been re-established, the soil surface would be protected, and the rate of erosion would decrease. After abandonment, the

entire wells location will be re-contoured and reclaimed, and the annual erosion rate would revert to 1.0 ton per acre.

If the first re-vegetation attempt is not successful, BLM Authorized Officer will do a site specific analysis and develop an alternative reclamation plan for the operator. Monitoring will continue until reclamation has been deemed successful by the BLM.

Invasive and Noxious Weeds

There are no known weed sites in or near the proposed project area. The ground disturbance associated with the proposed action; construction, drilling, and maintenance of the proposed well sites, access road, and pipeline throughout the life of the project, may create conditions that are conducive to the introduction or spread of invasive, non-native or noxious weed species at this location. If invasive and noxious weeds develop in the area during the life of the proposed wells, this would be considered a direct impact for the Proposed Action.

Mitigation: Implementation of the applicant committed weed control measures, discussed during onsite, would minimize impacts of weed invasion at the proposed locations and associated access roads and pipelines. Prior to any treatment on BLM administered lands, a Pesticide Use Proposal (PUP) will be submitted to the Vernal Field Office for approval.

Wildlife

The potential wildlife issues for these wells is based on the Vernal field Office RMP/ROD (October 31, 2008) lease notices and latest available wildlife data. An onsite review was conducted on December 6, 2007. The habitat present within this proposed project area includes mule deer, elk, pronghorn antelope, sage grouse, and raptors.

Big game - Mule deer, elk, antelope

Mule deer and elk would be potentially impacted by the removal of crucial winter habitat. But, they are mobile animals, and would be expected to avoid construction and drilling activities in the area. However, mule deer and elk would return to the area after surface disturbing activities have been completed. The mule deer and elk are most vulnerable during the wintering season because this is the time when direct impacts of abandonment, predation, and vehicle collisions are more likely to occur. Indirect impacts include increased vehicle activity within the area. Avoiding construction activities during the winter would help minimize impacts to the big game, including antelope. In addition the sage grouse timing restriction would also be beneficial for the antelope kidding, mule deer fawning, and elk calving.

Mitigation: See Applicant-Committed Environmental Protection Measures.

Sage grouse

No indirect impacts to the sage grouse leks would occur. However, approximately 10.73 acres of sage grouse brooding and wintering habitat would be lost. Avoiding construction activities during the spring/summer months of the year would help minimize surface disturbance and impacts to sage grouse brooding habitat. The big game timing restriction would be beneficial to

wintering sage grouse in the area because it allows the timing restriction to begin earlier (December 1).

Mitigation: See Applicant-Committed Environmental Protection Measures.

Migratory Birds

Impacts to State sensitive song and shore birds could result from removal of trees and shrubs for pad construction and ancillary impacts due to vehicle collisions, entrapment within open drilling waste pits and heater-treater units after wells are operational. These impacts can be minimized if the following mitigation measures are implemented:

Mitigation:

- a) Screen stacks to heater-treater units to prevent bird entry.
- b) Close waste pits as soon as possible (within 90 days is optimum)
- c) Remove trees and shrubs outside of nesting season (March 1 – July 31) if possible.

T&E Fish and Water Depletion

Water depletions from the Upper Colorado River Drainage System, along with a number of other factors, have resulted in drastic reductions in the populations of the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker, consequently, USFWS has listed these species as endangered and has implemented programs to prevent them from becoming extinct.

Water depletions have been shown to reduce the quality of critical fish habitat. Food supply, predation, and competition are important elements of the biological environment. Food supply is a function of nutrient supply and productivity, which could be limited by a reduction of high spring flows brought about by water depletions. Predation and competition from non-native fish species have been identified as factors in the decline of the endangered fishes. Water depletions contribute to alterations in flow regimes that favor native fishes.

The potential exists for water intake structures placed in the Upper Colorado River Drainage System (flowing rivers and streams) that results in mortality to eggs, larvae, young-of-the-year, and juveniles. BLM and their applicants would minimize this potential by implementing mitigation measures. Key habitat components for foraging or cover may be removed or altered due to equipment, including decreased water quantity for aquatic species due to withdrawals during low flow periods.

Overall, the proposed action would result in water depletion due to the use of historical municipal water or intermittent Red Creek tributary water (new depletion). Therefore, the proposed action would have a **“likely to adversely affect,” determination** for the endangered Colorado pikeminnow, humpback chub, bonytail, and razorback sucker. However, this project would be covered by the Programmatic Water Depletion Biological Opinion (BO) that was prepared by the US Fish and Wildlife Service and the Bureau of Land Management (VFO). In this BO, the Service determined that the level of anticipated water use for oil and gas development activities administered or permitted by the BLM, would be moderate. It is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

Otherwise reasonable and prudent alternatives would need to be implemented in conjunction with this project.

Red Creek Watershed ACEC

The proposed project is located within the Red Creek Watershed ACEC according to Vernal field Office RMP/ROD (October 31, 2008). The proposed action would disturb 10.73 acres, which is approximately 0.04% the total ACEC acreage.

Sage grouse

No indirect impacts to the sage grouse leks would occur. However, approximately 10.73 acres of sage grouse brooding and wintering habitat would be lost. Avoiding construction activities during the spring/summer months of the year would help minimize surface disturbance and impacts to sage grouse brooding habitat.

Mitigation: See Applicant-Committed Environmental Protection Measures.

Big game - Mule deer, elk, antelope

Mule deer and elk would be potentially impacted by the removal of crucial winter habitat. But, they are mobile animals, and would be expected to avoid construction and drilling activities in the area. However, mule deer and elk would return to the area after surface disturbing activities have been completed. The mule deer and elk are most vulnerable during the wintering season because this is the time when direct impacts of abandonment, predation, and vehicle collisions are more likely to occur. Indirect impacts include increased vehicle activity within the area. Avoiding construction activities during the winter would help minimize impacts to the big game, including antelope.

Mitigation: See Applicant-Committed Environmental Protection Measures.

Water supply

Red Creek is ephemeral tributary of the Green River. There would be disturbance associated with diversion of water from this tributary.

Mitigation: If water is pulled from Red Creek for drilling, construction etc., no materials would be added to or moved in or from the stream channel. If materials are moved in the stream channel, a Core of Engineers 404 permit or a State of Utah Stream Channel Alteration permit would be required.

DIRECT/INDIRECT IMPACTS OF THE NO ACTION ALTERNATIVE

Under the no action alternative, there would be no impacts to the other resources as documented in Appendix A.

Soils and Vegetation

Under the No Action Alternative, there would be no direct disturbance or indirect effects to soils and vegetation from surface disturbing activities associated with these wells. Current land use practices, primarily wildlife and livestock grazing, would continue, including ongoing oil and gas operations. There would be no increase in soil erosion rates associated with the proposed wells, and natural rates would prevail.

T&E Fish Species

The No Action Alternative would have a “*no affect, determination*” for the endangered Colorado pikeminnow, humpback chub, bonytail, and razorback sucker fish species because no depletion would occur..

Red Creek Watershed ACEC

Under the No Action alternative, there would be no surface disturbance or indirect effects to the Red Creek Watershed ACEC.

Sage grouse

The sage grouse brooding and wintering habitat would not be affected under the No Action Alternative. There would be no loss of habitat because the three proposed wells would not be developed in the area.

Big game - Mule deer, elk, antelope

Under the No Action Alternative mule deer and elk crucial winter habitat or pronghorn habitat would not be impacted directly or indirectly. Habitat acreage of approximately 10.73 acres would not be lost.

CUMULATIVE IMPACTS

Soils and Vegetation

Cumulative impacts typical of oil and gas field development include: the loss or damage to vegetation in the impact area; and increased erosion rates of soils which are generally very thin, slow to develop, and difficult to reclaim due to the arid climate and low organic content.

The cumulative impact area of analysis for soils and vegetation is the Clay Basin area which is located in Township 3North and Range 24 East with total area of 14546.65 acres, approximately 7 miles from Dutch John, Utah. There are currently 72 existing wells within the cumulative impact area. The three proposed wells addressed in this EA, would bring the existing or foreseeable number of wells to 75. The existing 72 wells fall into 6 categories: 16 producing oil wells, 3 abandoned wells, 44 wells currently being used as service wells, 1 shut in well, 3 new wells, and 5 wells that have been plugged and abandoned.

According to available information, the total surface disturbance due to the past, present, and foreseeable future actions associated with oil and gas development in this area would be approximately 350 acres (average well size of 5 acres for location including access roads and pipelines). The Proposed Action would add approximately 10.73 acres, which is about 0.07 % of the project area. The No Action alternative would not result in accumulation of impacts.

T&E Fish Species

There would be no cumulative impacts for the endangered Colorado pikeminnow, humpback chub, bonytail, and razorback sucker fish species because Red Creek is ephemeral tributary of the Green River and is not critical habitat. In addition, according to the Programmatic Water Depletion Biological Opinion that was prepared by the US Fish and Wildlife Service and the Bureau of Land Management, Vernal Field Office, the Service determined that the level of anticipated water use for oil and gas development administered or permitted by the BLM is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat. Otherwise reasonable and prudent alternatives would need to be implemented.

Red Creek Watershed ACEC

The cumulative impact area is the boundary of the ACEC. Within the 24,475 acres area, cumulative impacts include oil and gas and right-of-way development, recreation activities, and fire management activities. Recreation and fire management impacts include disturbance to soils, vegetation, and wildlife. Oil and gas wells within the cumulative impact area include 85 wells. Assuming 5 acres of disturbance per well, the total area would be 425 acres of disturbance or 1.7 % of the cumulative impact area.

Impacts to the sage grouse and big game in the cumulative impact area would occur on up to 425 acres, and include displacement and habitat alteration/removal. The proposed action would add 10.73 acres of disturbance. No cumulative impacts would occur to the Red Creek and raptors because no direct or indirect impacts would occur under either alternative.

Wildlife

The cumulative impact for wildlife (burrowing owl and prairie dog) is the same as for soils and vegetation. Disturbance to those species would occur on up to 350 acres of habitat, and impacts include displacement from and destruction of habitat. The No Action Alternative would not result in an accumulation of impacts.

CHAPTER 5 PERSONS, GROUPS, AND AGENCIES CONSULTED

PERSONS, AGENCIES AND ORGANIZATIONS CONSULTED:

SUMMARY OF PUBLIC PARTICIPATION: The NOS was posted for a 30-day public notification period. An on-site and file inspection was conducted by the BLM to identify any new or changed information and potential on-the-ground conflicts. Also, the proposed action was posted to the public Environmental Notification Bulletin Board on July 10, 2008, with the NEPA number assigned. A fifteen day public comment period would be offered.

Table: 5.1. List of Persons, Agencies and Organizations Consulted*

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Anna Figueroa	Natural Resource Specialist	Team Lead
Robin Hansen	Paleontologist	Paleontology
Blaine Phillips	Archaeologist	Archaeology
Scott Ackerman	Wildlife Biologist	Wildlife, Special Status Animals
Clayton Newberry	Botanist	Special Status Pant Species

*For more consultations, see Appendix A - Interdisciplinary Team Analysis Record Checklist

REFERENCES

Diamond Mountain Resource Area Resource Management Plan and Record of Decision. U.S. Bureau of Land Management, Vernal District, Utah. December 20, 1994.

Surface Operating Standards for Oil and Gas Exploration and Development. U.S. Bureau of Land Management and U.S. Forest Service, Washington D.C. 2007.

Vernal Field Office Draft Resource Management Plan and Environmental Impact Statement Bureau of Land Management (BLM). U.S. Bureau of Land Management, Vernal Field Office, Vernal, Utah. January 2005.

6.0 REFERENCES, GLOSSARY, AND ACRONYMS

6.1 References Cited

Diamond Mountain Resource Area Resource Management Plan and Record of Decision.
U.S. Bureau of Land Management, Vernal District, Utah. December 20, 1994.

Council on Environmental Quality. 1997. Environmental Justice Guidance Under the Executive Office of the President. <http://www.whitehouse.gov/CEQ/>
December 10, 1997 National Environmental Policy Act.

USFWS. 1987. Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin. U.S. Forest Service, Region 6, Denver, CO.

6.2 Acronyms

APD – Application for Permit to Drill

AUM – Animal Unit Month

BIA – Bureau of Indian Affairs

BLM – Bureau of Land Management

CEQ – Council on Environmental Quality

CFR – Code of Federal Regulations

DMRA – Diamond Mountain Resource Area

DR – Decision Record

EA – Environmental Assessment

EIS – Environmental Impact Statement

FONSI – Finding of No Significant Impact

Newfield – Newfield Production Company

LUP – Land Use Plans

NEPA – National Environmental Policy Act

OHV – Off-Highway Vehicles

OSHA - Occupational Safety and Health Act

RMP – Resource Management Plan

SARA – Superfund Amendments and Reauthorization Act

SITLA – School and Institutional Trust Lands Administration (State of Utah)

VFO – Vernal Field Office

APPENDICES

Appendix A: Interdisciplinary Team Analysis Record Checklist

Appendix B-1: Potential Occurrence Summary of Special Status Plant Species VFO.

Appendix B-2: Summary of Potential Occurrence of Special Status Wildlife Species.

Appendix C-1: Comment Analysis

INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST

**Project Title: Wexpro Company
Proposed Three Gas Wells; CBU # 66, CBU # 67, and CBU #68**

NEPA Log Number: UT-080-08-373

<u>Wells Name/Number</u>	<u>Legal Location</u>	<u>Lease Number</u>
CBU #66	NWSE sec. 21, T3N R24E	SL 045051B
CBU #67	NWNE sec. 21, T3N R24E	SL 045051A
CBU #68	NWNE sec. 26, T3N R24E	SL 045049

Project Leader: Anna Figueroa

DETERMINATION OF STAFF: (Choose one of the following abbreviated options for the left column)

- NP = not present in the area impacted by the proposed or alternative actions.
- NI = present, but not affected to a degree that detailed analysis is required.
- PI = present with potential for significant impact analyzed in detail in the EA; or identified in a DNA as requiring further analysis.
- NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section C of the DNA form.

Determination	Resource	Rationale for Determination*	Signature	Date
NI	Air Quality	Compressor stations are not proposed. Minimum quantities of dust emissions are anticipated because the volume of traffic from this proposal would be less than one vehicle per day during the production life of the wells. Increased traffic during construction and drilling activities would be temporary.	Stephanie Howard	9/25/08
PI	Areas of Critical Environmental Concern (existing)	The proposed project would be located within the existing Red Creek Watershed ACEC – see chapters 3 & 4 of the EA that address this issue.	Jason West	1/26/09
NP	Cultural Resources	No cultural resources would be affected by the proposed action. See Cultural Resource Report dated 12/31/07.	Blaine Phillips	12/31/07
NP	Environmental Justice	According to the EPA Region VIII, State of Utah, Environmental Justice Map, the region has been categorized as a minority population area of 10-20% and a poverty population area of 10-20%. No minority or economically disadvantaged communities or populations are present which could be affected by the proposed action or alternatives. (http://www.epa.gov/enviro/ej , 08/25/05)	Stephanie Howard	9/25/08
NP	Farmlands (Prime or Unique)	No prime or unique farmlands have been identified in Daggett County by the Natural Resource Conservation Service (NRCS). Therefore, this resource will not be carried forward in the EA for analysis.	Mark Wimmer	12/16/08
NP	Floodplains	This element addresses Executive Order (EO) 1990 (Protection of Wetlands) & EO 11988 (Floodplain Management) which pertains to construction activities. Diversion of water from Red creek is not a construction activity; therefore it is not likely to impact flood plains.	Anna Figueroa	9/16/08

Determination	Resource	Rationale for Determination*	Signature	Date
PI	Invasive, Non-native Species	Operator would control invasive species along road and pipeline corridors and on wells pads (discussed during onsite); and as described in chapters 3&4 and applicant committed measures.	Anna Figueroa	9/16/08
NP	Native American Religious Concerns	There are no known issues of concern to the Northern Ute Tribe associated with the proposed action. See Cultural Resource Report dated 12/31/07. The wells are in an area that had a Class III Cultural Resource Inventory in the late 1970's. No sites were located in and near the project location. Tribal cultural properties are not present and values important to the tribes are not present.	Blaine Phillips	12/31/07
PI	Threatened, Endangered or Candidate Animal Species	Water depletion impacts to special status animal species due to the proposed action. However, this project would be covered by the Programmatic Water Depletion Biological Opinion (BO).; see page 13 of the EA. No other impacts to T & E animals (see Wildlife Report dated, 2/11/08).	Scott Ackerman	9/16/08
NP	Threatened, Endangered or Candidate Plant Species	No special status plant species would be impacted by the proposed action. See SSPS Report dated 12/19/07.	Clayton Newberry	12/19/07
NI	Wastes (hazardous or solid)	<i>Hazardous Waste:</i> No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well" <i>Solid Wastes:</i> Trash would be confined in a covered container and hauled to an approved landfill. Burning of waste or oil would not be done. Human waste would be contained and be disposed of at an approved sewage treatment facility.	Stephanie Howard	9/25/08
NI	Water Quality (surface/ground)	The operator has certified compliance with all Onshore Oil and Gas Orders. "Onshore Oil and Gas Order No. 2 Drilling Operations" will assure that the project will not adversely affect groundwater quality. Due to the state-of-the-art drilling and well completion techniques, the possibility of adverse degradation of groundwater quality or prospectively valuable mineral deposits by the proposed action will be negligible. Well completion must be accomplished in compliance with "Onshore Oil and Gas Order No. 2, Drilling Operations", These guidelines specify the following: <i>...proposed casing and cementing programs shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use.</i> <i>For Surface Water:</i> At the point where water will be diverted from the Red Creek there could be potentially increased sediment in the Red Creek drainage that may eventually be transported to the Green River. However, Wexpro has provided information that only a truck driver will pump water directly to his truck and drive off. So this minimizes the sedimentation effect.	Stephanie Howard Anna Figueroa	9/25/08 10/20/08

Determination	Resource	Rationale for Determination*	Signature	Date
PI	Wetlands/Riparian Zones	There is a wetland/riparian area at the Red Creek water diversion point that could potentially be disturbed. However, during the diversion, if materials would be added or moved in or from the stream channel, a Core of Engineers 404 permit or a State of Utah Stream Channel Alteration permit would be required.	Karl Wright	10/20/08
NP	Wild and Scenic Rivers	None present in the project area as per Vernal RMP (10/31/08)	Anna Figueroa	12/19/08
NP	Wilderness	No wilderness areas have been designated by the U.S. Congress on BLM lands in the Vernal Field Office.	Mark Wimmer	10/16/08
NI	County Transportation Plan	Operator will use existing county road infrastructure.	Anna Figueroa	10/8/08
PI	Fish and Wildlife including Special Status Species other than FWS Candidate or Listed species (eg. Migratory Birds)	Big game, sage grouse and burrowing owl would potentially be impacted by the removal of crucial winter habitat. See Wildlife Report dated 2/11/08. Prairie dogs are not an issue because the CBU #67 well pad was moved away from the habitat.	Scott Ackerman	2/11/08
NI	Fuels / Fire Management	The proposed Clay Basin Unit #68 well is located within a deer winter range habitat enhancement project that was completed in 2007, which would amount to a loss of about 3 acres, out of the original 2,000 acre project. The loss of the 3 acres is not expected to adversely affect the overall accomplishment of the project.	Steve Strong	1/27/09
NI	Geology / Mineral Resources	Natural gas and oil are the only mineral resources that could be impacted by the project. Production of natural gas or oil would deplete reserves, but the proposed project allows for the recovery of natural gas and oil per 43 CFR 3162.1(a), under the existing Federal lease. Wells completion must be accomplished in compliance with "Onshore Oil and Gas Order No. 2, Drilling Operations". These guidelines specify the following: ... <i>proposed casing and cementing programs shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use.</i>	Robin Hansen	10/8/08
NP	Lands / Access	ROW will not be required, see APD. The proposed action is all within the Clay Basin Unit.	Anna Figueroa	10/8/08
NI	Livestock Grazing	Forage would initially be removed from 10.73 acres. But due to interim reclamation, approximately 4.5 acres will not be available as forage for the life of the wells. This is approximately less than 1 AUM for sheep and cattle. The disturbed area would be reseeded during intermediate and final reclamation.	Anna Figueroa	10/8/08
NP	Paleontology	See Paleo Report dated 12/31/07. However if, at any point, any fossil material is observed, stop work immediately and do not move or disturb the fossils. Notify the BLM Vernal Field Office Paleontologist within 48 hrs in order to determine appropriate mitigation.	Robin Hansen	12/31/07
NI	Rangeland Health Standards and Guidelines	Hydrologic processes would not be altered because the site-specific wells pads and roads are designed to minimize concentrated runoff and to convey runoff to adjacent undisturbed drainages. Species diversity would not decline due to reseeded. Allotment is meeting standards evaluated during summer of 2007 by the VFO Range Resources Department.	Stephanie Howard	9/25/08
NI	Recreation	Hunting and OHV take place within the proposed project area.	Jason West	1/26/09

Determination	Resource	Rationale for Determination*	Signature	Date
NI	Socio-economics	Due to the low number of wells, socioeconomics are not expected to be adversely impacted by this proposed project.	Stephanie Howard	10/8/08
PI	Soils	Soils would be disturbed on 10.73 acres initially, but due to reclamation approximately 6 acres would be disturbed for the life of the wells. The disturbed areas would be re-contoured and re-seeded during interim and final reclamation.	Anna Figueroa	10/8/08
NI	Special Status Plant Species other than FWS Candidate or Listed species	No Special Status Plant Species would be impacted by the proposed action. See SSPS Report dated 12/14/07	Clayton Newberry	12/14/07
PI	Non-status vegetation	Vegetation would initially be removed from 10.73 acres. But due to interim reclamation, approximately 4.5 acres would be removed for the life of the wells. The disturbed area would be re-seeded with appropriate seedmix during interim and final reclamation.	Anna Figueroa	10/8/08
NI	Visual Resources	The area is designated Visual Resource Management (VRM) Class IV. The proposed action and the alternatives analyzed are in compliance with the VRM objectives.	Anna Figueroa	10/8/08
NI	Waters of the U.S. (C.O.E.)	The point of diversion is within the 100 year floodplain of Red Creek. A truck driver will pump water directly to his/her truck and drive off; this minimizes any impacts to water. Impacts to floodplains & waters of the U.S. would be minimized through applicant committed measures.	Anna Figueroa	12/6/07
NP	Wild Horses and Burros (WHB)	The project area is not WHB HA or HMA, as per GIS data.	Anna Figueroa.	10/8/08
NP	BLM natural areas	None present as per Vernal RMP (10/31/08) in the project area.	Anna Figueroa	10/8/08
NP	Wilderness Study Area	None present as per Vernal RMP (10/31/08) and GIS data	Anna Figueroa	10/8/08
NP	Woodland / Forestry	A few juniper trees found around CBU # 68, but not at the site. Noted during the onsite.	Anna Figueroa	10/8/08

Appendix B-1

POTENTIAL OCCURRENCE SUMMARY SPECIAL STATUS PLANT SPECIES VFO

SPECIES	S T A T U S	LOCATION / HABITAT (county—location, geologic stratum, plant community, elevation)	OCCURRENCE or POTENTIAL OCCURRENCE
<i>Arabis vivariensis</i> Park rock cress	S	Uintah—Diamond Mt, Diamond Gulch Weber Fm sandstone & limestone, MDS or PJ, 5000'-6000'	None
<i>Astragalus equisolensis</i> Horseshoe milkvetch	0	Uintah—Green River Horseshoe Bend, Duchesne River Fm sand & silty sand, MDS, 4790'-5185'	None
<i>Astragalus hamiltonii</i> Hamilton milkvetch	S	Uintah—Asphalt Ridge Mowry, Dakota & Wasatch Fms Lapoint & Dry Gulch Mbrs, Duchesne Fm MDS or PJ, 5240'-5800'	None
<i>Cirsium ownbeyi</i> Ownbey thistle	S	Daggett, ne Uintah—east Uinta Mts canyons Crowe & Allen Cyns, Diamond Mt WMA PJS, MDS or riparian, 5500'-6200'	None
<i>Cleomella p. var. goodrichii</i> Goodrich cleomella	S	Uintah—Diamond Mt Morrison, Mancos, Tropic Fms heavy clay & shale slopes SDS, 4000'-6000'	None
<i>Erigeron untermannii</i> Untermann fleabane	S	Duchesne, Uintah—West Tavaputs Plateau Green River, Uinta Fm ridges, dry calcareous shales & sandstones PJ or MB, 7000'-7800'	None
<i>Habenaria zothecina</i> Alcove bog-orchid	S	Uintah—"hanging garden" oases Navajo or Nugget Sandstone Fm MDS, PJS, or oak brush, 4360'-8690'	None
<i>Hymenoxys lapidicola</i> Rock bitterweed	S	Uintah—Blue Mt, Cliff Ridge Weber Fm, sandy ledges & crevices PJ or ponderosa-manzanita, 5700'-8100'	None

SPECIES	S T A T U S	LOCATION / HABITAT (county—location, geologic stratum, plant community, elevation)	OCCURRENCE or POTENTIAL OCCURRENCE
<i>Lepidium barnebyanum</i> Barneby's pepperplant	E	TRIBAL—Duchesne West Tavaputs Plateau, Indian Canyon Uinta Fm, white shale outcrops & ridges barren inclusions in PJ, 6200'-6500'	None
<i>Lepidium huberi</i> Huber pepperplant	S	Uintah—foothills, Ashley Crk, Dry Fork Chinle, Park City, Weber Fm eroding cliffs, alluvium, sandy or shaly bluffs black sage or MB, 5000'-6400'	None
<i>Mentzelia goodrichii</i> Goodrich blazingstar	S	Duchesne—Willow & Argyle Canyons Green River Fm, steep escarpments & cliffs white calcareous shale, open MB, 8100'-8800'	None
<i>Penstemon acaulis</i> Stemless beardtongue	S	Daggett—Browns Park Fm ashy, gravelly or sandy ridges & knolls sagebrush-desert grass or PJ, 5840'-7285'	None
<i>Penstemon gibbensii</i> Gibbens beardtongue	S	Daggett—Browns Park Fm Green River Fm sandy / shaly bluffs, slopes juniper, thistle, buckwheat, serviceberry 5500'-6400'	None
<i>Penstemon goodrichii</i> Goodrich beardtongue	S	Duchesne, Uintah— Lapoint, Tridell, Whiterocks Duchesne River Fm; clay badlands MDS, shadscale, PJ or MB, 5590'-6215'	None
<i>Penstemon grahamii</i> Graham beardtongue	S	Uintah, Duchesne— oil shale outcrops throughout VFO Evacuation Creek, lower Parachute Mbrs oil shale or white shale knolls & talus semi-barren MDS or PJ, 4600'-6700'	None
<i>Penstemon scariosus</i> . var. <i>albifluvis</i> White River beardtongue	C	Uintah—south & southeast of Bonanza Evacuation Creek, lower Parachute Mbrs shale slopes, semi-barren MDS or PJ 4600'-6000'	None
<i>Schoenocrambe argillacea</i> Clay reed-mustard	T	Uintah—canyon rims & steep slopes contact zone, Uinta-Green River Fms MDS, 5000'-5650'	None
<i>Schoenocrambe suffrutescens</i> Shrubby reed-mustard	E	Duchesne, Uintah— Big Pack Mt, Wrinkles Rd, Hill Creek Basin Green River Fm, calcareous shale MDS, PJS or MB, 5400'-6000'	None

SPECIES	S T A T U S	LOCATION / HABITAT (county—location, geologic stratum, plant community, elevation)	OCCURRENCE or POTENTIAL OCCURRENCE
<i>Sclerocactus brevispinus</i> Pariette cactus	T	Duchesne—Pariette Wash south of Myton Uinta Fm, Wagonhound Mbr, alkaline clay shadscale, mat-saltbush, greasewood comm 4700'-5400'	None
<i>Sclerocactus wetlandicus</i> Uinta Basin hookless cactus	T	Duchesne, Uintah—widespread in VFO alluvial benches Ouray to Carbon Co. line MDS, 4700'-6000'	None
<i>Spiranthes diluvialis</i> Ute ladies'-tresses	T	Daggett, Duchesne, Uintah— unconsolidated alluvium riparian corridors, wetlands, wet meadows 4400'-6810'	None
<i>Thelesperma caespitosum</i> Uinta greenthread	S	Duchesne— West Tavaputs Plateau, north slope Uinta Mts Bishop Fm, white shale benches, ridgecrests cushion plant comm above PJS & MB 5000'-9000'	None

STATUS: E = Federally Endangered
T = Federally Threatened
C = Federal Candidate
S = Bureau-sensitive
0 = nonstatus, removed from status, potential status

HABITAT: MB = Montane Brush
MDS = Mixed Desert Shrub
PJ = Pinyon-Juniper
PJS = Pinyon-Juniper-Sagebrush
SDS = Salt Desert Scrub

OCCURRENCE: None = populations, potential or suitable habitat for this species unknown in Project Area.
Yes = There are no known occurrences in Project Area; however, habitat does occur here.

Appendix B-2

Special Status Species Lists

SUMMARY OF POTENTIAL OCCURRENCE of SPECIAL STATUS WILDLIFE SPECIES

Species	Status	Habitat Association	Potential for Occurrence Within the Proposed Project Area and Cumulative Effects Area	Eliminated From Detailed Analysis (Yes/No)
Humpback chub <i>Gila cypha</i>	FE; SE	Endemic to the Colorado River system within deep, swift-running rivers, with canyon shaded environments.	Low. This species occurs in the Green River. Critical Habitat is identified along the Green River.	Yes – The USFWS has identified four Federally listed fish species (pikeminnow, humpback chub, bonytail, and razorback sucker) that could be affected by water depletion of the Green River from the proposed gas wells proposed for use in construction of the Proposed Action. Water Depletion for these wells is based off of the use of water from Red Creek and Rock Springs town. The water taken from this location would qualify as water depletion as explained on page 6 in the Programmatic Water Depletion Biological Opinion for Oil and Gas Development Administered or Permitted by the Bureau of Land Management. Formal consultation with the US Fish and Wildlife Service for this Biological Opinion for water depletion was completed on July 28, 2006.
Bonytail <i>Gila elegans</i>	FE; SE	Endemic to the Colorado River system, restricted to the Green River. They use main channels of large rivers and favor swift currents.	Low. This species occurs in the Green River. Critical Habitat is identified along the Green River.	Same as Humpback chub
Colorado pikeminnow <i>Ptychocheilus lucius</i>	FE; SE	Endemic to the Colorado River system. Uses large swift rivers.	High. The Proposed Action will cause annual depletion to the White River in the Upper Colorado River Basin. Dalbo Inc.'s underground well located in Ouray, Utah; Sec 32, T4S, R3E, Water claim #43-8496, Application #53617. Original water right filed on 08/18/1979.	Same as Humpback chub
Razorback sucker <i>Xyrauchen texanus</i>	FE; SE	Endemic to large rivers of the Colorado River system.	High. The Proposed Action will cause average annual depletion to the White River in the Upper Colorado River Basin. Dalbo Inc.'s underground well located in Ouray, Utah; Sec 32, T4S, R3E, Water claim #43-8496, Application #53617. Original water right filed on 08/18/1979.	Same as Humpback chub

Species	Status	Habitat Association	Potential for Occurrence Within the Proposed Project Area and Cumulative Effects Area	Eliminated From Detailed Analysis (Yes/No)
Mexican spotted owl <i>Strix occidentalis lucida</i>	FT; ST; PIF	Found primarily in canyons with mixed conifer forests, pine-oak woodlands and riparian areas. This species nests on platforms and large cavities in trees, on ledges, and in caves. Breeding and nesting season: approximately March through August.	None. The Mexican spotted owl nests, roosts and forages in a diverse array of biotic communities (FWS 2001). The preferred nesting habitat of the species includes complex, thickly forested canyons, steep-walled rocky canyons, uneven-aged, multi-storied mature or old growth stands that have high canopy closure. The Project Area is north of the species known distribution in Utah (Willey 1995), and northeast of designated critical habitat in Carbon, Emery and Uintah counties. Furthermore, the Project Area does not provide suitable nesting habitat for the species.	Yes – No Fair or better habitat found within half mile of the proposed work
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FC; ST	Riparian obligate and usually occurs in large tracts of cottonwood/willow habitats. However, this species also has been documented in lowland deciduous woodlands, alder thickets, deserted farmlands, and orchards. Breeding season: late June through July.	Low. This species is known to occur at the Ouray NWR and along the Green River.	Yes – Yellow-billed cuckoo is associated with mature riparian forest. No habitat of this type being impacted
Black-footed ferret <i>Mustela nigripes</i>	FE; SE	Semi-arid grasslands and mountain basins. It is found primarily in association with active prairie dog colonies that contain suitable burrow densities and colonies that are of sufficient size.	Low. The distribution of this species is limited to a nonessential experimental population reintroduced into Coyote Basin, Uintah County starting in 1999.	Yes – No prairie dog colonies found in the project area. Not within the Primary Management Zone.
Canada lynx <i>Lynx lynx canadensis</i>	FT; SS	Primarily occurs in Douglas-fir, spruce-fir, and subalpine forests at elevations above 7,800 feet amsl. The lynx uses large woody debris, such as downed logs and windfalls.	None. If extant in Utah, this species most likely occurs in montane forests in the Uinta Mountains.	Yes – No suitable habitat

FE = Federally listed as endangered

FT = Federally listed as threatened

FC = Federal candidate

SE = State listed as endangered in Utah

ST = State listed as threatened in Utah

SS = Utah state sensitive species

PIF = Partners In Flight species of concern, Colorado Plateau, potentially in Vernal Field Office

Appendix C-1

COMMENT ANALYSIS (VERMILLION RANCH)

The BLM received comments from the Vermillion Ranch Limited Partnership (VRLP or Vermillion) during the public review period. Those comments were analyzed and resolved by BLM. The table below shows the comments that were received and corresponding BLM responses.

PUBLIC COMMENT		BLM RESPONSES
Vermillion Ranch Comments		
1:	a):	Conformance to Vernal RMP <i>Changes have been made in the EA. See page # 2.</i>
	b):	Wildlife Habitat impacts <i>Potential habitat impacts and mitigations are discussed on page 12-13 of the EA. Also see Wildlife Report, dated 2/11/08.</i>
	c):	Red Creek ACEC <i>Potential impacts to Red Creek Watershed ACEC and mitigations are discussed on page 14-15 of the EA.</i>
	d):	Reclamation Monitoring <i>Interim and final reclamation will be done. It would be monitored by BLM Authorized Officer (page 11-12 of the EA, and it is also found under BLM Conditions of Approval (COA).</i>
	e):	Coordination with landowners, livestock grazing permittees, and local government <i>BLM coordinates with landowners and approves the drilling of proposed oil/gas wells in a manner that avoids or minimizes impacts on other resources and activities (page 2 of the EA).</i>
2:	Identified Impacts Must be reduced to Insignificance <i>This is covered by applicant committed measures on page 7, and specific mitigation measures discussed in Chapter 4. And also through BLM Goldbook Best Management Practices (BMPs).</i>	
3:	Recommended Mitigation and Monitoring Plan for Adaptive Management <i>BLM staff will review environmental factors associated with reclamation monitoring and formulate a monitoring schedule. The BLM will evaluate reclamation efforts in coordination with operator and authorize changes if necessary.</i>	

4:	a):	Conformance with Vernal RMP and Record of decision	<i>Changes have been made in the EA. See page # 2.</i>
	b):	Mitigate damage to livestock or structures and limit operational impacts	<p><i>Public comment is part of BLM effort to coordinate with landowners, grazing permittees, etc. before approving oil/gas construction and drilling activities.</i></p> <p><i>There are no known fences, water projects, etc. within the project area. No water resources will be lost, and water use for the project is permitted by the State of Utah, Water Right # 41-3640, and Water Change Application # t78128.</i></p> <p><i>Compensation for loss of livestock caused by project operations will be handled on a case by case basis with involved parties.</i></p>
	c):	Conformance with Red Creek ACEC	<p><i>Potential impacts to the Red Creek Watershed ACEC including mitigation measures are discussed in the EA on page 14-15.</i></p> <p><i>The ACEC calls for maintaining or increasing vegetation cover and this will be achieved through reclamation (both interim and final) as discussed under 'Surface Restoration' in the EA, on page 6 & 7.</i></p> <p><i>The potential disturbance associated with diversion of water from the Red Creek tributary of the Green River would be mitigated as discussed in Chapter 4 of the EA, under 'water Supply' on page 14..</i></p> <p><i>BLM will continue to monitor reclamation until it is deemed successful as discussed in Chapter 4, page 11-12.</i></p>
	d):	Impacts on Fish, Wildlife, Big Game habitat	<p><i>i). Correction made on page 10, no error found on page 12.</i></p> <p><i>ii). Due to a combination of big game & sage grouse timing restrictions, the brooding and wintering habitat would be protected from surface disturbing activities (construction, drilling, and fracing) for a total of 7 months, beginning December 1- June 30.</i></p>
	e):	Coordinate the travel plan with county, permittees, and landowners	<i>There will be no need to coordinate travel plans because existing road infrastructure will be used. New surface disturbance due to access roads for the proposed wells would only be approximately 500 feet.</i>
	f):	Noxious weeds and halogeton	<i>The operator would control noxious weeds as discussed on page 6 of the EA, and in chapter 4 on page 12. Mechanical or chemical means of weed control would be used. A list of noxious weeds may be obtained from the BLM weeds specialist or the appropriate County Extension Office. On BLM administered lands, a Pesticide Use Proposal (PUP) must be submitted and approved prior to the application of any chemicals (herbicides, pesticides, etc.)</i>

Appendix C-2

COMMENT ANALYSIS (USFWS)

The BLM received comments from U.S. Fish and Wildlife Service, West Valley City, Utah (dated 11/6/08) during the public review period. Those comments were analyzed and resolved by BLM. The table below shows the comments that were received and corresponding BLM responses.

PAGE #	PUBLIC COMMENT	BLM RESPONSES
5	To help meet responsibilities under Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) and to assist in efforts to comply with the Migratory Bird Treaty Act, the Service recommends that reserve pits be netted with bird exclusion netting to reduce potential impacts to migratory birds.	<i>Migratory Birds Treaty Act is addressed on page 10 and 13 within the document.</i>
6	The Service recommends that reserve pits be drained and backfilled as soon as possible to limit potential impacts to wildlife.	<i>This comment is addressed on page 6 and 7 of the EA. It is also included as a BLM surface Condition of Approval (COA).</i>
12	For effective control of invasive and noxious weeds in the project area, the Service recommends that a monitoring program for these be incorporated into this development.	<i>See comment # 4 (f): in Appendix C-1</i>
13	The Service recommends rewording the paragraph that addresses water depletion to clarify that the programmatic water depletion BO will be used for this project.	<i>Comment noted, paragraph reworded to adequately address the issue.</i>
Appendix A	The Service recommends changing the determination for T & E or Candidate animal species to Potential Impact (PI) since T & E fish were analyzed accordingly in the document.	<i>Determination has been changed to Potential Impact (PI) for T & E or Candidate animal species.</i>
Appendix A	The Service recommends changing the determination for wetlands/riparian zone to Potential Impact (PI) since the rationale states that a wetland/riparian zone could be disturbed in the Red Creek.	<i>See revised determination under Wetlands/Riparian section.</i>

FINAL REVIEW:

Reviewer Title	Date	Signature	Comments
Environmental Coordinator	1/29/09		
Manager Review	2/3/2009		

DOCUMENTS CITED:						
<i>*Signature incorporated by reference to the following documents. All documents are on file in the Vernal Office.</i>						
Wells Number	1: Cultural Resource Report	2: Water Depletion Report	3: Paleontological Resource Report	4: Wildlife Species Report	5: Special Status Plant Species	6: Application for Permit to Drill
CBU #66	12/31/2007	7/7/08	12/31/2007	2/11/08	12/19/2007	2/27/2008
CBU #67	12/31/2007	9/26/08	12/31/2007	2/11/08	12/19/2007	2/27/2008
CBU #68	12/31/2007	7/7/08	12/31/2007	2/11/08	12/19/2007	2/27/2008

7: Vernal field Office RMP/ROD (October 31, 2008)

8: State of Utah Water Right # 41-3640, and Utah Water Change Application # t78128

**FINDING OF NO SIGNIFICANT IMPACT
AND
DECISION RECORD**

**Wexpro Company
Proposed Three Gas Wells
CBU # 66, CBU # 67, and CBU #68**

Lease UT-080-08-373

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, and considering the significance criteria in 40 CFR 1508.27, I have determined that the action will not have any significant effects on the human and wildlife environments. Therefore, an environmental impact statement is not required.

Decision:

It is my decision to authorize Wexpro Company to proceed with three gas wells as described in the Proposed Action Alternative of EA-UT-080-08-373, as modified by the attached 'Conditions of Approval'.

Summary of the Selected Alternative:

Wexpro Company proposed to drill three gas wells with construction requirements as summarized in the table below:

<i>Wells ID</i>	<i>Location</i>		<i>Reserve Pit</i>		<i>Access Road</i>		<i>Pipelines</i>		<i>Total</i>
	<i>ft</i>	<i>acres</i>	<i>ft</i>	<i>acres</i>	<i>ft</i>	<i>acres</i>	<i>ft</i>	<i>acres</i>	
CBU #66	420 X 270	2.60	220 X 170	0.86	130	0.10	955	surface	3.56
CBU #67	420 X 270	2.60	220 X 170	0.86	20	0.01	52	surface	3.47
CBU #68	420 X 270	2.60	220 X 170	0.86	350	0.24	2059	surface	3.70
TOTAL	-	7.80	-	2.58	500	0.35	3066	-	10.73

This decision is contingent on meeting all stipulations and monitoring requirements listed below:

- See attached Conditions of Approval.

Rationale for the Decision:

The proposed wells and related facilities would be in conformance with the Vernal field Office RMP/ROD (October 31, 2008) and the terms of lease(s). The RMP/ROD decision allows leasing of oil and gas while protecting or mitigating other resource values (RMP/RODp. 96-98). The Minerals and Energy Resource Management Objectives encourage the drilling of oil and gas wells by private industry (RMP/RODp. 96). It has been determined that the proposed action and alternative(s) would not conflict with other decisions throughout the plan.

The subject lands were leased for oil or gas development under authority of the Mineral Leasing Act of 1920, as modified by the Federal Land Policy and Management Act of 1976, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987 and the Energy Policy Act of 2005. The lessee/operator has the right to explore for oil and gas on the lease as specified in 43 CFR 3103.1-2, and if a discovery is made, to produce oil and/or natural gas for economic gain.

There are no comprehensive State of Utah plans for the vicinity of the proposed action. The State of Utah School and Institutional Trust Lands Administration (SITLA) have leased much of the nearby state lands for oil and gas production. Because the objectives of SITLA are to produce funding for the state school system, and because production on federal leases could further interest in drilling on state leases in the area, it is assumed that the alternatives analyzed, except the No Action Alternative, are consistent with the objectives of the State of Utah.

The proposed drilling is consistent with the *Dagett County General Plan, 2005* (Plan) that encompasses the location of the proposed well. In general, the Plan indicates support for development proposals such as the proposed action through the Plan's emphasis of multiple-use public land management practices, responsible use and optimum utilization of public land resources.

On-site visits were conducted by Vernal Field Office personnel. The On-Site Inspection Reports do not indicate that any other locations be proposed for analysis. In addition, 43 CFR 3101-2 states that, at a minimum, the relocation of proposed operations by 200 meters or timing restrictions of less than 60 days would be consistent with the lease rights granted.

The APDs were posted for a 30-day public notification period. An on-site and file inspection was conducted by the BLM to identify any new or changed information and potential on-the-ground conflicts. The proposed action was posted to the public Environmental Notification Bulletin Board with its assigned NEPA number. A public comment period was offered because the proposed wells are within Red Creek Watershed ACEC.

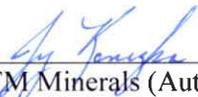
Important Dates				
<i>Wells ID</i>	<i>NOS Posting</i>	<i>Onsite Inspection</i>	<i>APD Receipt</i>	<i>ENBB Posting</i>
CBU #66	11/26/2007	12/6/2007	2/27/2008	7/10/2008
CBU #67	11/26/2007	12/6/2007 & 4/22/2008	2/27/2008	7/10/2008
CBU #68	11/26/2007	12/6/2007	2/27/2008	7/10/2008

Compliance with "Onshore Oil and Gas Order No. 2, Drilling Operations" will assure that the wells drilling and completion will not adversely affect groundwater quality or prospectively valuable mineral deposits. Due to the state-of-the-art drilling and wells completion techniques, the possibility of adverse degradation of groundwater quality or prospectively valuable mineral deposits by the proposed action will be negligible.

Wells completion must be accomplished in compliance with "Onshore Oil and Gas Order No. 2, Drilling Operations". These guidelines specify the following:

... proposed casing and cementing programs shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use.

The above factors and the analysis contained in EA No. UT-080-08-373 for Wexpro Company concerning drilling of three gas wells was carefully considered and evaluated. In addition, the Applications for Permit to Drill (APDs) were reviewed. All reports were read and the information contained appropriately weighed in determining the appropriateness of the decision stated above.



AFM Minerals (Authorized Officer)

2/3/2009

Date

Appeals:

This decision is effective upon the date it is signed by the authorized officer. The decision is subject to appeal. Under BLM regulation, this decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of this decision must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, Utah State Office, P.O. Box 45155, Salt Lake City, Utah, 84145-0155, within 20 business days of the date this Decision is received or considered to have been received.

If you wish to file a petition for stay, the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied;
 - (2) The likelihood of the appellant's success on the merits;
 - (3) The likelihood of irreparable harm to the appellant or resources if the stay is not granted;
- and,
- (4) Whether the public interest favors granting the stay.

BLM SURFACE CONDITIONS OF APPROVAL (COA)

Clay Basin Unit # 66

- 1. Time Limitations:** (Only during construction & drilling)
Lands in this lease have been identified as habitat for some wildlife. Therefore, modifications to the Surface Use Plan of Operations will be required in order to protect this wildlife habitat from surface disturbing activities (see below).

TIME RESTRICTION

REASON

December 1 - April 30.....Crucial mule deer winter habitat
March 1 - June 30.....Sage grouse lek/nesting habitat

There will be no construction, drilling or fracing operations during the above time periods.

- 2. Special Status Plants:** If Uinta Basin hookless cactus or other special status plants are found, construction will cease and the AO will be notified to determine the appropriate mitigation.
- 3. Operator will minimize potential impacts to migratory birds by implementing the following mitigative measures:**
 - Screen stacks to heater-treater units to prevent bird entry.
 - Close waste pits as soon as possible (within 90 days is optimum)
 - Remove trees and shrubs outside of nesting season (March 1 – July 31) if possible.
- 4. Diversion of water from Red Creek tributary:** If water is pulled from Red Creek for drilling, construction etc., no materials would be added to or moved in or from the stream channel. If materials are moved in the stream channel, a Core of Engineers 404 permit or a State of Utah Stream Channel Alteration permit would be required.
- 5. Surface Pipelines:** Restrictions for placement of surface pipelines:-
 - Surface pipelines will be placed 5-10 feet outside of the borrow area.
 - Surface pipelines will be placed in such a way that they would not wander into the borrow area.
 - Pipelines will be buried at all major road and drainage crossings.
- 6. Specific Conditions Pertaining to Location Construction:**
 - Ditch around the well pad & channel flow away from the location.
- 7. Reserve pit:** Any pits, and open tanks shall be fenced in order to exclude livestock and other wildlife from the area. The reserve pit will be closed within 90 days (weather permitting).
- 8. Paint all facilities covert green** within six months of installation, except those facilities which are required to comply with the Occupational Safety and Health Act (OSHA).
- 9. Invasive/Noxiuos Weeds** The operator will be responsible for treatment and control of invasive and noxious weeds.
Prior to any treatment on BLM administered lands, a Pesticide Use Proposal will be submitted to the Vernal Field Office for approval.
- 10. Interim Reclamation:**

All portions of the well pads and ROWS not utilized for the operation phase of the project will be re-seeded. Post construction seeding applications will continue until determined successful by the BLM.

 - During interim reclamation of the surface, the following seed mixture will be used PLS (Pure Live Seed) formula.

shadscale (<i>Atriplex confertifolia</i>).....	3 lbs/acre
Gardner saltbush (<i>Atriplex gardneri</i>).....	3 lbs/acre
needle & thread grass (<i>Hesperostipa comata</i>).....	3 lbs/acre
Wyoming big sage (<i>Artemisia tridentata</i>).....	0.5 lbs/acre

Rates are set for drill seeding; double the rate if broadcasting.

 - Reseeding may be required if initial seeding is not successful.
- 11. Final Reclamation:**
 - Once the location has been plugged and abandoned, final reclamation will be done.

SURFACE CONDITIONS OF APPROVAL (COA)

Clay Basin Unit # 67

1. **Time Limitations:** (Only during construction & drilling)
Lands in this lease have been identified as habitat for some wildlife. Therefore, modifications to the Surface Use Plan of Operations will be required in order to protect this wildlife habitat from surface disturbing activities (see below).

TIME RESTRICTION

REASON

December 1 - April 30.....Crucial mule deer winter habitat

March 1 - June 30.....Sage grouse lek/nesting habitat

There will be no construction, drilling or fracing operations during the above time periods.

2. **Special Status Plants:** If Uinta Basin hookless cactus or other special status plants are found, construction will cease and the AO will be notified to determine the appropriate mitigation.
3. Operator will minimize potential impacts to migratory birds by implementing the following mitigative measures:
 - a) Screen stacks to heater-treater units to prevent bird entry.
 - b) Close waste pits as soon as possible (within 90 days is optimum)
 - c) Remove trees and shrubs outside of nesting season (March 1 – July 31) if possible.
4. **Diversion of water from Red Creek tributary:** If water is pulled from Red Creek for drilling, construction etc., no materials would be added to or moved in or from the stream channel. If materials are moved in the stream channel, a Core of Engineers 404 permit or a State of Utah Stream Channel Alteration permit would be required.
5. **Surface Pipelines:** Restrictions for placement of surface pipelines:-
 - a): Surface pipelines will be placed 5-10 feet outside of the borrow area.
 - b): Surface pipelines will be placed in such a way that they would not wander into the borrow area.
 - c): Pipelines will be buried at all major road and drainage crossings.
6. **Reserve pit:** Any pits, and open tanks shall be fenced in order to exclude livestock and other wildlife from the area. The reserve pit will be closed within 90 days (weather permitting).
7. **Specific Conditions Pertaining to Location Construction:**
 - Ditch around the well pad & channel flow away from the location.
8. Paint all facilities covert green within six months of installation, except those facilities which are required to comply with the Occupational Safety and Health Act (OSHA).
9. **Invasive/Noxiuos Weeds** The operator will be responsible for treatment and control of invasive and noxious weeds.
Prior to any treatment on BLM administered lands, a Pesticide Use Proposal will be submitted to the Vernal Field Office for approval.
10. **Interim Reclamation:**

All portions of the well pads and ROWS not utilized for the operation phase of the project will be re-seeded. Post construction seeding applications will continue until determined successful by the BLM.

 - During interim reclamation of the surface, the following seed mixture will be used PLS (Pure Live Seed) formula.

shadscale (<i>Atriplex confertifolia</i>).....	3 lbs/acre
Gardner saltbush (<i>Atriplex gardneri</i>).....	3 lbs/acre
needle & thread grass (<i>Hesperostipa comata</i>).....	3 lbs/acre
Wyoming big sage (<i>Artemisia tridentata</i>).....	0.5 lbs/acre

Rates are set for drill seeding; double the rate if broadcasting.

 - Reseeding may be required if initial seeding is not successful.
11. **Final Reclamation:**
 - Once the location has been plugged and abandoned, final reclamation will be done.

SURFACE CONDITIONS OF APPROVAL (COA)

Clay Basin Unit # 68

1. **Time Limitations:** (Only during construction & drilling)
Lands in this lease have been identified as habitat for some wildlife. Therefore, modifications to the Surface Use Plan of Operations will be required in order to protect this wildlife habitat from surface disturbing activities (see below).

TIME RESTRICTION

REASON

December 1 - April 30.....Crucial mule deer winter habitat
March 1 - June 30..... Sage grouse lek/nesting habitat

There will be no construction, drilling or fracing operations during the above time periods.

2. **Special Status Plants:** If Uinta Basin hookless cactus or other special status plants are found, construction will cease and the AO will be notified to determine the appropriate mitigation.
3. Operator will minimize potential impacts to migratory birds by implementing the following mitigative measures:
- a) Screen stacks to heater-treater units to prevent bird entry.
 - b) Close waste pits as soon as possible (within 90 days is optimum)
 - c) Remove trees and shrubs outside of nesting season (March 1 – July 31) if possible
4. **Diversion of water from Red Creek tributary:** If water is pulled from Red Creek for drilling, construction etc., no materials would be added to or moved in or from the stream channel. If materials are moved in the stream channel, a Core of Engineers 404 permit or a State of Utah Stream Channel Alteration permit would be required.
5. **Surface Pipelines:** Restrictions for placement of surface pipelines:-
- a): Surface pipelines will be placed 5-10 feet outside of the borrow area.
 - b): Surface pipelines will be placed in such a way that they would not wander into the borrow area.
 - c): Pipelines will be buried at all major road and drainage crossings.
6. **Specific Conditions Pertaining to Location Construction:**
- Ditch around the well pad & channel flow away from the location.
7. **Reserve pit:** Any pits, and open tanks shall be fenced in order to exclude livestock and other wildlife from the area. The reserve pit will be closed within 90 days (weather permitting).
8. Paint all facilities juniper green within six months of installation, except those facilities which are required to comply with the Occupational Safety and Health Act (OSHA).
9. **Invasive/Noxious Weeds** The operator will be responsible for treatment and control of invasive and noxious weeds.
Prior to any treatment on BLM administered lands, a Pesticide Use Proposal will be submitted to the Vernal Field Office for approval.
10. **Interim Reclamation:**
All portions of the well pads and ROWS not utilized for the operation phase of the project will be re-seeded. Post construction seeding applications will continue until determined successful by the BLM.
- During interim reclamation of the surface, the following seed mixture will be used PLS (Pure Live Seed) formula.
- | | |
|---|--------------|
| shadscale (<i>Atriplex confertifolia</i>)..... | 3 lbs/acre |
| Gardner saltbush (<i>Atriplex gardneri</i>)..... | 3 lbs/acre |
| needle & thread grass (<i>Hesperostipa comata</i>)..... | 3 lbs/acre |
| Wyoming big sage (<i>Artemisia tridentata</i>)..... | 0.5 lbs/acre |
- Rates are set for drill seeding; double the rate if broadcasting.
- Reseeding may be required if initial seeding is not successful.
11. **Final Reclamation:**
- Once the location has been plugged and abandoned, final reclamation will be done.