

**U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641**

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-110-2009-0043-EA

CASEFILE/PROJECT NUMBER (optional): COC-63728, COC-57286

PROJECT NAME: Five (5) APDs-FU 297-16 A1 thru A5

LEGAL DESCRIPTION: Surface Location all Wells:
T2S, R97W, SWNW sec. 16, 6th P.M.

Production Zones:

NWSW sec. 16- FU 297-16A1 (COC-63728)

SWSW sec. 16 FU 297-16A2 (COC-57286)

NWSW sec. 16- FU 297-16A3 (COC-63728)

SENE sec. 16 FU 297-16A4 (COC-57286)

SENE sec. 16 FU 297-16A5 (COC-57286)

APPLICANT: ExxonMobil Corporation

ISSUES AND CONCERNS: Onsite was conducted on 10/30/2006 and well pad was Freedom Unit (FU) 297-16A. The proposed action is for 5 federal wells. The well pad is designed for a potential total of 10 wells; the five future wells will be split estate (federal minerals-private surface).

- Existing fence where well pad is proposed will have to be moved
- Deer severe winter range
- Raptor survey required

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action: ExxonMobil Corporation (hereafter ExxonMobil) proposes to construct a well pad (500'x 450'), construct 25' of access road, and install 1,200' of 6" steel pipeline to tie into an existing 26" pipeline. Only the south corner of the well pad (0.3 ac.) would extend onto BLM surface. The topsoil stockpile and approximately half of the spoils stockpile would be placed on BLM surface for a total disturbance of approximately 1.5 acres. All other surface disturbance would be on private surface owned by ExxonMobil.

- This is an exploration well
- All roads that are not county maintained will be maintained as required by usage
- Approximately 250' of access road (all of which is located on surface property owned by ExxonMobil Corp.) will be upgraded or constructed to the junction to the drilling pad and no BLM authorization is required for this access road.
- The proposed pipeline will be constructed on surface property owned by ExxonMobil Corp. and no BLM authorization is required.
- Water supply would either be piped from an unidentified source with surface lines or trucked over access road. Remaining clear water would be pumped or hauled forward from previous wells after surface casing is set.
- Location sub-grade will be constructed by normal cut and fill methods.
- Surfacing material will be trucked to the location from an outside source and placed as needed.
- Drill cuttings would be disposed of in the reserve or dry cutting pit and buried with at least 4' of cover. E & P waste would be handled as defined, prescribed or permitted by the COGCC Rules.
- Any drilling mud with greater than 1% diesel net weight would be hauled to a proper disposal site.
- An alternative to hauling would be solidification in the pit with method approved by the Colorado Oil and Gas Conservation Commission (COGCC).
- All mud cuttings will meet these requirements before being buried or removed from the location.
- All cuttings will have all harmful properties of the waste reduced or removed and the mobility of leachate constituents reduced or eliminated.
- The BLM will be contacted prior to testing the cuttings of the first well so that the BLM may witness the testing procedures.
- Trash, waste paper, and other garbage would be contained in a fenced trash cage and hauled to a commercial disposal site.
- Salts that are not used in the drilling fluid would be removed from the location by the supplier.
- Sewage from the trailer houses will be disposed of in a manner meeting the Rio Blanco County Regulations, as under the guidance of Colorado Water Quality Control Commission, Department of Public Health and Environment.
- Portable, self-contained chemical toilets will be provided for human waste disposal. Upon completion and as needed the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility.
- Chemicals that are not used in the drilling and completion of the well would be removed from the location by the supplier.
- Drilling fluids would be allowed to evaporate in the reserve pit until the pit is dry enough for back filling.
- Water produced during tests would be disposed of in the reserve pit as per Onshore Order #7.
- Oil produced during tests would be stored in test tanks until sold, at which time it would be hauled from the site.

- In the event fluids in the pit do not evaporate in a reasonable time, the fluids would be hauled to a state approved disposal site or would be mechanically evaporated.
- The reserve pit would be fenced on three sides with 4-strand barbed wire or woven wire fence or cattle panels during drilling and on the fourth side after the rig is released.
- No camps, airstrips, etc. would be constructed.
- All equipment and vehicles will be confined to the access road and well pad.
- Mud pits in the active circulation system would be steel pits. The reserve pit may be lined with an impermeable liner if needed to hold fluid.
- If snow is encountered, the snow would be removed before construction begins or the topsoil is disturbed, and placed downhill of the proposed topsoil stockpile.
- All available topsoil will be stripped on well locations and access roads, prior to construction, and stockpiled for use in reclamation of the site. Topsoil stockpile would be clearly segregated from any spoil pile and placed where it can be easily retrieved without impact to natural features.
- Upon completion of the operation and disposal of trash and debris as prescribed above, pits will be backfilled and recontoured as soon as practical after they have dried.
- Unneeded disturbed surfaces (on BLM property) remaining after completion to the surface production facilities will be shaped to match the surrounding terrain and seeded as specified by the BLM.
- When the well is abandoned, ExxonMobil would rehabilitate the road and location as per BLM specifications.
- Revegetation of the drill pad (on BLM property) will comply with BLM specifications.
- Rehabilitation operations will start in a timely manner following the completion of operations, typically the following construction season.
- Surface ownership is a combination of private surface and BLM surface.
- Minerals for A1-A5 are managed by the Bureau of Land Management.
- Future wells (A6-A10) will be private minerals.
- The well pad and road are in soils map unit 91. This is the Torriorthents-rock outcrop complex on 15-90% slopes. These are very shallow to moderately deep and well drained soils. Potential plant community is pinyon and juniper with Indian Ricegrass, beardless wheatgrass, prairie junegrass, and low rabbit brush.
- An archaeological investigation and report will be prepared for the proposed access road and well site and submitted to the BLM.
- The nearest drainage is Piceance Creek which is approximately 750' to the east of the proposed location.
- Total surface maximum disturbance of the pad and access road is estimated at 9.76 acres.
- Completed wells on this pad will continue to produce during drilling operations per Exxon Mobil Simultaneous Operations guidelines.
- Water breaks-If applicable, Water breaks will be constructed per Figure 10 (Corrected Diagram) found on page 34 of the document BLM: Surface Operating Standards For Oil and Gas Exploration and Development.

Approximate date proposed action work would start for the FU 297-16A pad is as follows:

08/15/2008 (A1),
10/15/2008 (A2),

11/15/2008 (A3),
12/15/2008 (A4),
01/15/2009 (A5).

Estimated duration of drilling each well would be 35 days.

No Action Alternative: The project would not be authorized and there would be no new environmental impacts as a result of the proposed action. No well pads, access roads, or pipelines would be constructed.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None

NEED FOR THE ACTION: The purpose of the proposed action is to manage the exploration and development of mineral resources on Public Lands in a manner that avoids, minimizes, reduces, or mitigates potential impacts to other resource values.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Page 2-5

Decision Language: “Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values.”

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

NATURAL, BIOLOGICAL, AND CULTURAL RESOURCES

AIR QUALITY

Affected Environment: This Proposed Action is located in rural northwest Colorado in the White River Basin, more than ten miles from special designation air sheds or non-attainment areas. Industrial facilities in White River Basin include coal mines, soda ash mines, natural gas processing plants and power plants. Due to these industrial uses and increased population and oil and gas operations in this region, emissions of air pollutants in the White River Basin due to exhaust emissions and dust (particulate matter) are likely to occur and increase into the future. Despite increases in emissions, overall air quality conditions in the White River Basin are likely to continue to be good for some time to come due to effective atmospheric dispersion conditions and limited transport of air pollutants from outside the area.

Although specific air quality monitoring data are not available for the White River Basin, data have been collected in the region. The cities of Grand Junction (southwest), Steamboat Springs (northeast), and Parachute (directly south) all host air quality monitoring stations. Available monitoring data at Grand Junction, Steamboat Springs, and Parachute indicate that the project area is likely to be in the attainment category, meaning that the ambient concentrations of criteria pollutants are less than the applicable air quality standards (NAAQS and CAAQS). However it should be noted, not all criteria pollutants have been monitored at each monitoring site, there is not continuous monitoring of all criteria pollutants at any of the sites and the atmospheric, proximity to emissions, and climate conditions at these monitoring sites are likely to be different from the project area.

The National Ambient Air Quality Standards (NAAQS) were established under the Federal Clean Air Act (CAA). The Air Pollution Control Division of the Department of Public Health and Environment (CDPHE) is the lead agency for air quality in Colorado and has developed the Colorado Ambient Air Quality Standards (CAAQS). The CAA and its amendments established the Prevention of Significant Deterioration (PSD) program to help protect attainment areas (Class I and Class II areas) and established limits to visibility impairment for Class I areas. The PSD program is applied to national parks and wilderness areas greater than 10,000 acres in size. The nearest Class I area is the Flat Tops Wilderness Area in the White River National Forest is east of the project area. Dinosaur National Monument is to the northwest of the project area and is a designated PSD Class II area with Class I protection status for SO₂. New development projects in or near the PSD areas that would be a major source of pollutants (defined as either 250 tons/year or 150 tons/year, depending on the source) require the demonstration of Best Available Control Technology (BACT), an air quality analysis, an additional impacts analysis, and public involvement.

The White River Field Office resource area has been classified as either attainment or unclassified for all air pollutants (NAAQS and CAAQS standards), and most of the area has been designated for the prevention of significant deterioration class II for the PSD areas nearby. Because the historic air quality in the White River Basin has been good, small changes in air quality may have noticeable and localized effects, especially on visibility.

Environmental Consequences of the Proposed Action: The topsoil stockpile and approximately half of the spoils stockpile would be placed on BLM surface for a total disturbance of approximately 1.5 acres on Federal Lands, the rest of the disturbance will be on private lands adjacent to Piceance Creek. The proposed action includes construction of an access road and new pad adjacent to the pad for ExxonMobil's Love Ranch #5 well as well as re-working the Love Ranch #5 pad. Visible dust is likely to increase due to construction and vehicle traffic during drilling, completion, hydraulic fracturing and production activities.

The Proposed Action would increase the level of inhalable particulate matter, specifically particles ten microns or less in diameter (PM₁₀) associated with fugitive dust. In addition, increases in the following criteria pollutants: carbon monoxide, ozone (secondary pollutant), nitrogen dioxide, and sulfur dioxide would also occur due to combustion of fossil fuels which will likely be the highest during construction and drilling activities. Vehicle emissions are difficult to quantify due to varying environmental conditions and differences in individual vehicle emissions. Natural gas exploration, processing and transportation will result in the combustion of fuels for compressors and other equipment in addition to flaring. Non-criteria pollutants such as visibility, nitric oxide, air toxics (e.g. benzene) and total suspended particulates (TSP) may also experience slight, temporary increases as a result of the Proposed Action (no national ambient air quality standards have been set for non-criteria pollutants). Any potential increase in emissions would likely fall within NAAQ and CAAQ standards.

The Colorado Air Pollution Control Division (APCD) estimates the maximum PM₁₀ levels (24-hour average) in rural portions of western Colorado to be near 50 micrograms per cubic meter (µg/m³). This project is not likely to exceed this western Colorado dust standard or exceed Colorado air quality standards with mitigation of dust during construction and drilling activities. As no PSD Class I areas are located within a 10-mile radius of the project area, no adverse air quality impacts to these areas are expected to occur from the Proposed Action. No major source of pollutants (as defined by the PSD program) is anticipated under the Proposed Action. Therefore, the most likely and consistent impact from this project is periodic increases in fugitive dust. Fugitive dust production can be moderated by good road design and maintenance as well as dust abatement measures.

Cumulative air quality impacts would include an increase in surface disturbance within the region, which would expose bare soils and contribute to particulate matter in the air and reduced visibility and an increase in emissions from the combustion of fossil fuels. This project is unlikely to result in exceedances of the NAAQ and CAAQ standards and is likely to be under the PSD thresholds.

Environmental Consequences of the No Action Alternative: No impacts would occur

Mitigation: These items should be added as conditions of approval (COAs).

All access roads will be treated with water and/or a dust suppressant during construction and drilling activities so that there is not a visible dust trail behind vehicles. All vehicles will abide by company or public speed restrictions during all activities. If water is used as a dust suppressant, there should be no traces of oil or solvents in the water. Only water needed for

abating dust should be applied; dust abatement should not be used as a water disposal option under any circumstances.

WASTES, HAZARDOUS OR SOLID

Affected Environment: Fuels, oils, chemicals, and lubricants will be used during the project, and solid waste (human waste, garbage, etc.) will be generated during activities. There are no known hazardous or other solid wastes on the subject lands. No hazardous materials have been identified that will be used, stored or disposed of at sites included in the project area. ExxonMobil states in its SWMP that fracturing fluids will contain varying amounts of Potassium Chloride (KCl), FR-56 (a friction reducer), LoSurf 300 (a nonionic surfactant), and Optikleen WF (a viscosity reducing agent), all chemical compounds patented by or used by Halliburton. Potential environmental impacts from these agents are not well known.

In the Surface Use Plan (SUP), ExxonMobil has stated that the excess liquids may be removed from the reserve pit or mechanical evaporation will be used to reduce liquids before filling. Drill cuttings will be disposed of in the reserve or dry cuttings pit and buried with at least 4' of cover, unless the drill cuttings/fluids contain greater than 1% diesel net weight. In this case, these cuttings will be transported via tanker truck over existing roads to a state approved disposal site. Mud and cuttings may be solidified in place. Garbage will be contained onsite and then hauled to an approved disposal site. Sewage from trailers handled according to State and County regulation and portolets waste will be hauled to an approved sewage disposal site.

Environmental Consequences of the Proposed Action: Accidental spills or leaks associated with equipment failures, refueling or maintenance of equipment, and storage of fuel, oil, or other fluids could cause soil, surface water and/or groundwater contamination. With implementation of the mitigation measures described below and ExxonMobil's spill prevention program, impacts would be temporary.

Since not all chemicals that will be used on the site have been disclosed, specifically chemicals used for drilling, completion and hydraulic fracturing operations impacts to groundwater may occur. ExxonMobil has stated likely chemicals to be used for hydraulic fracturing in their SWMP, but actual chemicals and amounts are not known. During hydraulic fracturing operations these chemicals are injected with water and engineered sands into the surrounding formation at depth to increase gas transmissivity to the well bore. Chemicals used in gas producing aquifers may change the solubility of metals and other compounds in the treated formation and will also locally increase transmissivity around the well bore. With proper well completion impacts between aquifers of varying water quality could potentially occur, but is unlikely due to the vertical displacement of "freshwater" aquifers ($\leq 1,500$ ft below surface in general) and targeted gas producing zones ($\geq 6,000$ ft below surface).

Solid wastes and sewage would be properly disposed of offsite in an approved facility and therefore impacts are not expected beside the potential for accidental spills during transportation.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The following items should be added as conditions of approval.

Onsite sewage treatment on Federal Lands needs to be approved by the BLM via Sundry Notice by the AO.

To reduce the need to store excess soil from the pad construction, please consider a design that better balances the cut and fill and maybe uses more of the area around Love Ranch #5 for this purpose.

To reduce the need to store excess soil from the cuttings or reserve pits that will not be needed during interim reclamation should be used in balancing the cut/fill on the pad or road construction and not stored.

If needed, mechanical evaporation in the pits should be done in such a way that there is no overspray beyond the pit boundaries. This will reduce the likelihood of salts and other potential contaminants being deposited on adjacent undisturbed vegetation.

All pits need to be lined with at least a 24 mil liner due to the proximity of groundwater.

The pits should be closed as soon as possible after drilling and completion of these wells, regardless if additional wells are planned for this pad. Reserve pits will be allowed to dry through natural evaporation for one four season cycle after the well is drilled (as per White River ROD/RMP). If a pit has not dried by the end of this period, all remaining fluids and/or mud must be removed and disposed of in an approved manner (see SUP, EP has been identified). All pits shall be recontoured within 15 months after the final well is drilled.

The release of any chemical, oil, petroleum product, produced water, or sewage, etc, (regardless of quantity) must be reported by the lease holder, to the Bureau of Land Management – WRFO Hazardous Materials Coordinator at (970) 878-3800.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: This project is entirely within the Lower Piceance Creek watershed. The water quality classification of the mainstem of Piceance Creek from just below Hunter Creek to Ryan Gulch (segment 14b) is for Aquatic Life Cold 1, Recreation Primary, and Agriculture.

Environmental Consequences of the Proposed Action: The topsoil stockpile and approximately half of the spoils stockpile would be placed on BLM surface for a total disturbance of approximately 1.5 acres on Federal Lands, the rest of the disturbance will be on private lands adjacent to Piceance Creek. Construction of the access road and pad will result in

temporary disturbance causing increased erosion and surface runoff until re-vegetation efforts are successful.

The location of this pad is on a steep slope with a fairly substantial drainage through the middle of the pad. If the drainage features are not adequate for the pad, overland flow will be concentrated in some areas and this will lead to localized erosion. The stormwater management plan (SWMP) calls for drainage swells with check dams to be constructed around the entire pad and excess spoils piles. If too much water from these swells is concentrated into the drainage below the pad additional erosion may result. Immediately below the pad and before Piceance Creek is an irrigation ditch which would most likely collect any additional sediment production off the site.

Environmental Consequences of the No Action Alternative: No impacts identified.

Mitigation: The following should be attached as conditions of approval.

Provide for erosion-resistant surface drainage by adding necessary drainage facilities and armoring prior to fall rain or snow. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.

- a. If erosion features such as riling, gulying, piping and mass wasting occur along the pipeline right-of-way at anytime in the future these erosion features will be addressed immediately after observation by contacting the AO and submitting a reclamation plan with BMPs to address the erosion problems.
- b. A Reclamation Status Report will be submitted to the WRFO biannually for all actions that require disturbance of surface soils on BLM-administered lands as a result of the proposed action. Actions may include, but are not limited to, well pad and road construction, construction of ancillary facilities, or power line and pipeline construction. The Reclamation Status Report will be submitted by 15 May and 15 November of each calendar year, and will include the well number, legal description, project description (e.g., well pad or pipeline), reclamation status (e.g., interim or final), whether the well pad or pipeline has been re-vegetated and/or re-contoured, date seeded, photos of the reclaimed site, estimate of acres seeded and seeding method (e.g., disk-plowed, drilled, or both). Internal and external review of this plan and the process used to acquire the necessary information will be conducted annually, and new information or changes in the reporting process will be incorporated into the plan. The Reclamation Status Report will be submitted electronically via email as a Microsoft Excel table to Natural Resource Specialist, Brett Smithers (brett_smithers@blm.gov).

Finding on the Public Land Health Standard for water quality: It is unlikely that the access road and well pad construction, as well as drilling and production activities would result in an exceedence of state water quality standards. Cumulative impacts from this activity and others may eventually impact sediment yields to the degree that they impact listing of Piceance Creek.

SOILS

Affected Environment: The BLM surface disturbance would be in a sagebrush terrace adjacent to Piceance Creek entirely within the Torriorthents-Rock outcrop complex with 15 to 90 percent slopes. The drop where the terrace goes down to the floodplain is where the steepest slopes are. The SWMP calls for drainage swells to be placed around excess and topsoil storage piles and drained into the drainage off the terrace.

Environmental Consequences of the Proposed Action: If reclamation is successful impacts from this project will be localized to disturbed areas. The soils in this area have runoff characteristics that are very rapid, and the hazard of water erosion is very high. This means the majority of the surface disturbance has the potential to have difficult reclamation and might have more of a potential for localized erosion.

If the seedbed is not stabilized, re-vegetation efforts will not be successful and erosion could become substantial. Loss of vegetation increases surface runoff and erosion along the pad and soils piles could result in mass wasting along cut and fill slopes. This project is likely to result in localized erosion due to the poor soils and steep slopes. The mitigation applied in the Water Quality section should moderate these impacts.

Environmental Consequences of the No Action Alternative: No impacts to soils would likely occur.

Mitigation: See the Water Quality section

Finding on the Public Land Health Standard for upland soils: With mitigation this action is unlikely to reduce the productivity of soils impacted by surface disturbing activities.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: The nearest channel system supporting riparian vegetation is the privately owned portion of Piceance Creek, which is separated by approximately 270 meters from the project area by a flat, irrigated hay meadow. The nearest BLM-administered reach capable of supporting riparian vegetation is a 200-meter stretch along Piceance Creek which is nearly two miles downstream from the project area.

Environmental Consequences of the Proposed Action: Pad, road and pipeline construction would have no direct impact on riparian/wetland resources. With the application of BMPs associated with soil erosion there is no reasonable likelihood that fugitive sediments would have any influence on the function or condition of the Piceance Creek channel or its associated riparian resources.

Environmental Consequences of the No Action Alternative: There would be no action authorized that would have any direct or indirect influence on downstream riparian communities.

Mitigation: None

Finding on the Public Land Health Standard for riparian systems: The Public Land Health Standards are not applicable to those privately-owned reaches that support riparian vegetation. The nearest BLM-administered reach is located along Piceance Creek, which is approximately two miles downstream. Neither the proposed or no-action alternative would have any reasonable potential to influence the function or condition of riparian and wetland habitat.

VEGETATION (includes a finding on Standard 3)

Affected Environment: Vegetation at the project site is a sparse stand of Wyoming big sagebrush, bunchgrass and cheatgrass with subdominant shrubs including spineless horsebrush and shadscale. The corresponding ecological site is Stony foothills.

Environmental Consequences of the Proposed Action: The proposed action will create about 1.5 acres of new earthen disturbance on BLM lands. The principal impact to vegetation will be complete removal of vegetation on the well site and the earthen disturbance associated with it. In terms of plant community composition, structure and function, the principal negative impact over the long term would occur if cheatgrass or noxious weeds are allowed to establish and proliferate on the disturbed areas resulting from pad construction.

Environmental Consequences of the No Action Alternative: There will be no change from the present situation.

Mitigation: All disturbed areas of the location not necessary for production would be reclaimed within the first growing season or prior to the first full growing season following disturbance with Native seed mix #3. Successful revegetation should be achieved within three years. The operator will be required to monitor the project site for the life of the project to detect the presence of noxious/invasive species. Any such species which occur will be eradicated using materials and methods approved in advance by the Authorized Officer.

Native seed mix #3		
Western wheatgrass (Rosanna)	2	Gravelly 10"-14", Pinyon/Juniper Woodland, Stony Foothills, 147 (Mountain Mahogany)
Bluebunch wheatgrass (Whitmar)	2	
Thickspike wheatgrass (Critana)	1	
Indian ricegrass (Rimrock)	2	
Fourwing saltbush (Wytana)	1	
Utah sweetvetch	1	

***Double the seeding rate and harrow seed into the soil when broadcasting. Use seed that is certified and free of noxious weeds.**

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The BLM portion of the proposed location marginally meets the Standard for upland vegetation but with proper revegetation of disturbed areas it could be expected to meet the Standard in the future.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: There are no known noxious weeds at the site of the proposed location. The invasive annual cheatgrass (*Bromus tectorum*) is present on the site.

Environmental Consequences of the Proposed Action: The proposed action will create about 1.5 acres of earthen disturbance, which if it is not revegetated with desirable species and /or treated with herbicides to eradicate cheatgrass, will be invaded and dominated by cheatgrass, increasing the potential for fire and the consequent further proliferation of cheatgrass.

Environmental Consequences of the No Action Alternative: There will be no change from the present situation.

Mitigation: The operator will monitor the location for the life of the project to detect the presence of noxious and invasive species. The operator will be responsible for eradication of noxious weeds and cheatgrass on the location using materials and methods authorized in advance by the Field Manager.

THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES (includes a finding on Standard 4)

Affected Environment: The proposed well pad will encounter a narrow exposed outcrop of the Thirteen Mile Tongue member of the Green River Formation. The Thirteen Mile Tongue provides habitat for the federally threatened Dudley Bluffs bladderpod (*Lesquerella congesta*) and Dudley Bluffs twinpod (*Physaria obcordata*) these species are only known to occur along the Piceance Creek, Yellow Creek, and Duck Creek drainages in the Piceance Basin. This geologic formation is also known to support Rollins cryptanth (*Cryptantha rollinsii*) which is a BLM sensitive species that also derives habitat from several other members of the Green River geologic formation and is distributed throughout Garfield, Rio Blanco, Moffat counties in Colorado and Uintah and Grand counties in Utah.

The Thirteen Mile Tongue formation encountered by the proposed action occurs entirely on private land owned by ExxonMobil. Numerous surveys dating as far back as 1982 have found no evidence of occupation of either sensitive species known to occur within proximity of the proposed action. The nearest known population of *Physaria obcordata* occurs approximately 0.62 miles north on the north side of Hog Lot Draw and 0.36 miles east across Piceance Creek inside the Dudley Bluffs ACEC.

Environmental Consequences of the Proposed Action: The proposed action will disturb approximately 0.84 acres of exposed Thirteen Mile Tongue member of the Green River formation. This outcrop occurs entirely on private lands and is degraded by current and historic livestock use. As such the formation proposed for disturbance is best described as potential habitat but the presence of cheatgrass and other competitive winter annuals such as alyssum spp. and chorispora spp. likely would inhibit establishment and healthy occupation of this formation by Dudley Bluffs twinpod, Dudley Bluffs bladderpod, or Rollins cryptanth conversely species

also commonly associated with suitable habitat for Dudley Bluffs twinpod and Dudley Bluffs bladderpod such as *Mentzelia multicaulis* and *Cirsium barnebyi* appear to be absent from the site suggesting the degraded nature of the site. Development of the well pad location will not affect current population trends for either Dudley Bluffs twinpod or Dudley Bluffs bladderpod as there is no evidence of occupation in twenty plus years of survey for the species. A no affect determination is further supported considering that livestock grazing will likely be the continued land use for this site in the post energy development environment and while there is a minimal chance the site could potentially support sensitive species there is far more suitable recovery sites located to the east and north in the Dudley Bluffs and Ryan Gulch ACECs on federal lands.

Environmental Consequences of the No Action Alternative: There would be no surface disturbance to the thirteen mile tongue member of the Green River Shale formation which is considered potential habitat for the federally threatened Dudley Bluffs Bladderpod, Dudley Bluffs twinpod, and Rollins cryptanth.

Mitigation: None

Finding on the Public Land Health Standard for Threatened & Endangered species: The proposed and no-action alternatives would have no influence on existing populations of special status plants and based on the low potential of the site to support populations of Threatened and Endangered Species (TES) plants and the fact that more suitable habitats exist on federally owned properties in the immediate vicinity. The proposed action would have no influence on the status of applicable land health standards.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: There are no threatened, endangered or sensitive animal species that are known to inhabit or derive important use from the project area.

Environmental Consequences of the Proposed Action: The proposed action would have no conceivable influence on special status species or associated habitats

Environmental Consequences of the No Action Alternative: There would be no action authorized that would have potential to influence special status species or associated habitats.

Mitigation: None

Finding on the Public Land Health Standard for Threatened & Endangered species: The proposed and no-action alternatives would have no influence on populations or habitats of animals associated with the Endangered Species Act or BLM sensitive species and, as such, would have no influence on the status of applicable land health standards.

MIGRATORY BIRDS

Affected Environment: The proposed pad is broadly encompassed by Wyoming big sagebrush, basin big sagebrush (draw bottoms) and shadscale, with a perennial bunchgrass understory. There are a number of migratory birds that fulfill nesting functions in these sagebrush and grassland communities during the months of May, June, and July, such as meadowlark, Vesper's sparrow and blue-gray gnatcatcher, but also species identified as having higher conservation interest by the Rocky Mountain Bird Observatory, Partners in Flight program and the US Fish and Wildlife Service (USFWS) Birds of Conservation Concern (i.e., Brewer's sparrow).

Due to the proximity of this pad to Piceance Creek, it is likely that waterfowl frequent the area. The development of reserve pits that contain drilling fluids may further attract waterfowl use throughout the breeding season.

Environmental Consequences of the Proposed Action: Pad and road construction will likely be initiated in late-July or August and as such will have little impact on breeding activities. Public land involvement in the proposed action is minimal (~1.5 acres) and as such would have little impact on breeding bird densities at the local scale. Removal of approximately one acre of sagebrush-grassland communities may displace one breeding pair, likely a more generalized species.

It has been brought to BLM's attention that in certain situations migratory waterfowl have contacted drilling or frac fluids (i.e., stored in reserve pits) during or after completion operations and are suffering mortality in violation of the Migratory Bird Treaty Act. The extent and nature of the problem is not well defined, but is being actively investigated by the federal agencies and the companies. Until the vectors of mortality are better understood, management measures must be conservative and relegated to preventing bird contact with frac and drilling fluids that may pose a problem.

Environmental Consequences of the No Action Alternative: There would be no conceivable influence on migratory birds under the no action alternative.

Mitigation: The operator shall prevent use by migratory birds of reserve pits that store or are expected to store fluids which may pose a risk to such birds (e.g., migratory waterfowl, shorebirds, wading birds and raptors) during completion and after completion activities have ceased. Methods may include netting or other alternative methods that effectively prevent use and that meet BLM approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to prevent use two weeks prior to when completion activities are expected to begin. The BLM approved method will be applied within 24 hours after completion.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: The nearest perennial reach which supports higher order vertebrate communities is the privately owned portion of Piceance Creek, which is separated from the project area by approximately 270 meters of flat, irrigated hay meadows. A short (200 meter)

BLM-administered portion of Piceance Creek, located approximately two miles downstream from the project area, is the nearest reach which potentially supports higher order aquatic communities. Downstream reaches have been found to support small populations of speckled dace, flannelmouth and mountain sucker and leopard frog.

Environmental Consequences of the Proposed Action: Pad, road and pipeline construction would have no direct impact on aquatic resources. With the application of BMPs associated with soil erosion there is no reasonable likelihood that fugitive sediments would have any influence on the function or condition of the Piceance Creek channel, its aquatic wildlife or associated habitats.

Environmental Consequences of the No Action Alternative: There would be no action authorized that would have any direct or indirect influence on downstream aquatic habitat.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): The Public Land Health Standards are not applicable to downstream reaches that support prolonged intermittent or perennial flows since they are substantially private or State-owned. The nearest BLM-administered reach is approximately two miles downstream. Neither the proposed or no-action alternative would have any reasonable potential to influence the function or condition of subtending channels or their aquatic habitat values.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The lower elevational sagebrush and grassland communities are categorized by the Colorado Division of Wildlife as mule deer severe winter range, a specialized component of winter range that periodically supports virtually all an area's deer under the most severe winter conditions (i.e., extreme cold and heavy snowpack). These ranges receive heaviest use from January through April.

The project area lacks any suitable nest substrate (i.e., mature woodlands) for woodland raptors. Cliffs and rock outcrops which provide nesting habitat for golden eagle and red-tailed hawk are absent from the project area.

Small mammal populations are poorly documented however, the species that are likely to occur in this area display broad ecological tolerance and are widely distributed throughout the Resource Area. No narrowly distributed or highly specialized species or subspecific populations are known to inhabit this area.

Environmental Consequences of the Proposed Action: Pad construction is scheduled to take place during the summer and fall months and as such would not coincide with big game critical use periods. Should construction or drilling operations extend into the winter use period, appropriate timing restrictions would be applied. The proposed action represents an incremental

expansion of industrial development on the Piceance Basin mule deer severe winter range. The long-term occupation of about one acres of forage habitat would have minor localized influence on big game forage availability, but these reductions have cumulative connotations. Interim reclamation on the well pad would help offset herbaceous forage losses and accelerate the reestablishment of woody forage and cover components for all resident wildlife.

Environmental Consequences of the No Action Alternative: There would be no action authorized that would have any direct or indirect influence on terrestrial wildlife or associated habitats.

Mitigation: There will be no development allowed from 1 December through 30 April to avoid big game severe winter ranges (TL-08 White River ROD/RMP).

The use of interim reclamation techniques will be used to the extent practicable on this pad such that: 1) all available topsoil material would be used to rehabilitate recontoured cut and fill slopes and areas outside the anchors (maintaining the viability of the soils for final reclamation), 2) production facilities are located to maximize the extent of surface disturbance available for recontouring and reclamation after completion operations and through the productive life of the well (e.g., where access road enters pad), and 3) all disturbed areas are reseeded and, if necessary, effectively fenced to control livestock use once well completion activities have been finalized (this includes cut and fill slopes of roads and trial application on the roadbeds themselves).

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): Although the project area is being subjected to increasing levels of natural gas development, the project area meets the land health standards on a landscape scale. The proposed action is expected to incrementally reduce local habitat capacity over the life of the project. As conditioned by reclamation-related provisions, implementation of the proposed action would not interfere with continued landscape level maintenance of the land health standards.

CULTURAL RESOURCES

Affected Environment: The proposed well pad location and access route have been inventoried (Bott 2008, Compliance Dated 12/5/2008) with no new cultural resources identified in the inventoried area. The majority of the project area was inventoried at the Class III (100% pedestrian) level, and a small section was not inventoried due to the presence of recent ground disturbance with is an exception to inventory covered under the BLM Manual Section 8110. There is still the potential for previously undetected resources within 308 meters of the proposed development.

Environmental Consequences of the Proposed Action: The proposed action will not impact any known cultural resources however, there is the potential to impact previously undetected resources due to vibrations from construction and drilling or increased unauthorized collection due to increased access and activity in the area.

Environmental Consequences of the No Action Alternative: Under this alternative there would be no surface disturbance resulting in no impacts to cultural resources.

Mitigation: The operator is responsible for informing all persons who are associated with the project 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 uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). 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 site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

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 cost. 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.

Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), 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.

PALEONTOLOGY

Affected Environment: The proposed action is located in an area mapped as the Uintah Formation and as Modern Alluvium which the BLM, WRFO has classified as a PFYC 5 and PFYC 4 respectively (Tweto 1979). These formations are known to produce scientifically important fossil resources.

Environmental Consequences of the Proposed Action: If it becomes necessary, for any reason, to excavate into the underlying rock formation there is a potential to impact scientifically important fossil resources.

Environmental Consequences of the No Action Alternative: Under this alternative there would be no surface disturbance resulting in no impacts to fossil resources.

Mitigation: The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

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 cost. 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.

If it becomes necessary to excavate into the underlying rock formation to construct the access, level the well pad or excavate the reserve/blooiie pit a paleontological monitor shall be present for all such excavations.

ELEMENTS NOT PRESENT OR NOT AFFECTED:

No ACEC, flood plains, prime and unique farmlands or Wild Horses exist within the area affected by the proposed action. There are also no Native American religious or environmental justice concerns associated with the proposed action.

OTHER ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Visual Resources			X
Fire Management	X		
Forest Management	X		
Hydrology/Water Rights			X
Rangeland Management		X	
Realty Authorizations		X	
Recreation		X	
Access and Transportation		X	

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Geology and Minerals			X
Areas of Environmental Concern	X		
Wilderness	X		
Wild and Scenic Rivers	X		
Cadastral	X		
Socio-Economics		X	
Law Enforcement		X	

VISUAL RESOURCES

Affected Environment: The proposed action would be located in an area with a VRM III classification. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Environmental Consequences of the Proposed Action: The route commonly traveled by a casual observer would be RBC 5 (Piceance Creek Road). The proposed action would be visible from this route. Persons traveling this route and viewing this proposed action could be casual observers, but would most likely be energy related personnel, local ranchers/permittees, and seasonal big game hunters. The proposed action would be close to an existing well pad and only the corner of the proposed well pad would be on BLM lands. Surface disturbance on private lands are not subject to BLM VRM classifications and management activities. By painting all above ground facilities Juniper Green to mimic the background of nearby woody vegetation, the level of change to the characteristic landscape would be low, and the objectives of the VRM III classification would be retained.

Environmental Consequences of the No Action Alternative: There would be no environmental impacts.

Mitigation: All permanent (onsite for six [6] months or longer) structures, facilities and equipment placed above ground shall be painted Munsell Soil Color Chart Juniper Green, or equivalent within six months of installation.

HYDROLOGY AND WATER RIGHTS

Affected Environment: Water will be used for construction, drilling, completion and fracing operations as part of this action. ExxonMobil does not define the source of waters for these uses in the Surface Use Plan (SUP)

Environmental Consequences of the Proposed Action: This action could deplete water sources and has the potential to impact water rights if sources are not properly permitted for this use.

Environmental Consequences of the No Action Alternative: no water would be used.

Mitigation: The following item should be attached as conditions of approval.

An estimate of the volumes of water that may be used for construction, drilling, completion, fracing and dust abatement will be provided to the WRFO hydrologist by well and by pad.

As per Onshore Order #1 requirements, the operator will submit an amendment to the current Surface Use Permit via Sundry Notice Form 3160-5 before construction activities begin detailing:

- The source of all water used for construction, drilling, completion and fracing operations
- Any water haul routes that may be used
- Municipal water provider, the permit number or a copy of the water right permit being use for each water source (see http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/Onshore_Order_no1.html, section 2e for more information)

GEOLOGY AND MINERALS

Affected Environment: The surface geologic formation of the well location is alluvium and the Uinta formation. The targeted zone is in the lower Mesaverde. During drilling potential water, oil shale, sodium, and gas zones will be encountered from surface to the targeted zone. Fresh water aquifers that will be encountered during drilling are; the Perched in the Uinta, the A-groove, B-groove and the Dissolution Surface in the Green River formation. These geologic zones along with upper portion of the Wasatch are known for difficulties in drilling and cementing. The wells will develop the natural gas resources on Federal oil and gas leases.

These wells are located in an area identified in the White River ROD/RMP as available for multi-mineral leasing and sodium leasing.

Environmental Consequences of the Proposed Action: Drilling and completion of this well may adversely affect fresh water aquifers if there is loss of circulation or problems cementing the casing. However, the identified cementing and completion procedure of the proposed action isolates the formations and will prevent the migration of gas, water, and oil between formations. Development of these wells will deplete the hydrocarbon resources in the targeted formation.

Environmental Consequences of the No Action Alternative: The natural gas resources in the targeted zones will not be developed at this time.

Mitigation: None

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts from oil and gas development were analyzed in the White River Resource Area Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) completed in June 1996. Current development, including the proposed action, has not exceeded the cumulative impacts from the foreseeable development analyzed in the PRMP/FEIS.

REFERENCES CITED:

Bott, Tracy

2008 ExxonMobil Corporation: A Class III Cultural Resources Inventory of the Proposed FRU 297-16A Well Pad in Rio Blanco County, Colorado. Metcalf Archaeological Consultants, Inc., Eagle, Colorado.

Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

PERSONS / AGENCIES CONSULTED: None

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Bob Lange	Hydrologist	Air Quality, Water Quality, Surface and Ground Hydrology and Water Rights, Soils, Wastes, Hazardous or Solid
Ken Holsinger	Botanist	Areas of Critical Environmental Concern, Threatened and Endangered Plant Species
Michael Selle	Archeologist	Cultural Resources, Paleontological Resources
Mark Hafkenschiel	Rangeland Management Specialist	Invasive, Non-Native Species, Vegetation , Rangeland Management
Lisa Belmonte	Wildlife Biologist	Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Terrestrial and Aquatic Wildlife, Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness, Access and Transportation, Recreation,
Jim Michels	Fire/Fuels Technician	Fire Management, Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Penny Brown	Realty Specialist	Realty Authorizations
Keith Whitaker	Natural Resource Specialist	Visual Resources
Melissa Kindall	Range Technician	Wild Horse

Finding of No Significant Impact/Decision Record (FONSI/DR)

DIO-BLM-CO-110-2009-0043-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION/RATIONALE: It is my decision to approve this action as described I the proposed action with the addition of the mitigation listed below.

MITIGATION MEASURES:

1. All access roads will be treated with water and/or a dust suppressant during construction and drilling activities so that there is not a visible dust trail behind vehicles. All vehicles will abide by company or public speed restrictions during all activities. If water is used as a dust suppressant, there should be no traces of oil or solvents in the water. Only water needed for abating dust should be applied; dust abatement should not be used as a water disposal option under any circumstances.
2. Onsite sewage treatment on Federal Lands needs to be approved by the BLM via Sundry Notice by the AO.
3. To reduce the need to store excess soil from the pad construction, please consider a design that better balances the cut and fill and maybe uses more of the area around Love Ranch #5 for this purpose.
4. To reduce the need to store excess soil from the cuttings or reserve pits that will not be needed during interim reclamation should be used in balancing the cut/fill on the pad or road construction and not stored.
5. If needed, mechanical evaporation in the pits should be done in such a way that there is no overspray beyond the pit boundaries. This will reduce the likelihood of salts and other potential contaminants being deposited on adjacent undisturbed vegetation.
6. All pits need to be lined with at least a 24 mil liner due to the proximity of groundwater.
7. The pits should be closed as soon as possible after drilling and completion of these wells, regardless if additional wells are planned for this pad. Reserve pits will be allowed to dry

through natural evaporation for one four season cycle after the well is drilled (as per White River ROD/RMP). If a pit has not dried by the end of this period, all remaining fluids and/or mud must be removed and disposed of in an approved manner (see SUP, EP has been identified). All pits shall be recontoured within 15 months after the final well is drilled.

8. The release of any chemical, oil, petroleum product, produced water, or sewage, etc, (regardless of quantity) must be reported by the lease holder, to the Bureau of Land Management – WRFO Hazardous Materials Coordinator at (970) 878-3800.

9. Provide for erosion-resistant surface drainage by adding necessary drainage facilities and armoring prior to fall rain or snow. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.
 - a. If erosion features such as riling, gullying, piping and mass wasting occur along the pipeline right-of-way at anytime in the future these erosion features will be addressed immediately after observation by contacting the AO and submitting a reclamation plan with BMPs to address the erosion problems.
 - b. A Reclamation Status Report will be submitted to the WRFO biannually for all actions that require disturbance of surface soils on BLM-administered lands as a result of the proposed action. Actions may include, but are not limited to, well pad and road construction, construction of ancillary facilities, or power line and pipeline construction. The Reclamation Status Report will be submitted by 15 May and 15 November of each calendar year, and will include the well number, legal description, project description (e.g., well pad or pipeline), reclamation status (e.g., interim or final), whether the well pad or pipeline has been re-vegetated and/or re-contoured, date seeded, photos of the reclaimed site, estimate of acres seeded and seeding method (e.g., disk-plowed, drilled, or both). Internal and external review of this plan and the process used to acquire the necessary information will be conducted annually, and new information or changes in the reporting process will be incorporated into the plan. The Reclamation Status Report will be submitted electronically via email as a Microsoft Excel table to Natural Resource Specialist, Brett Smithers (brett_smithers@blm.gov).

10. All disturbed areas of the location not necessary for production would be reclaimed within the first growing season or prior to the first full growing season following disturbance with Native seed mix #3. Successful revegetation should be achieved within three years. The operator will be required to monitor the project site for the life of the project to detect the presence of noxious/invasive species. Any such species which occur will be eradicated using materials and methods approved in advance by the Authorized Officer.

Native seed mix #3		
Western wheatgrass (Rosanna)	2	Gravelly 10"-14", Pinyon/Juniper Woodland, Stony Foothills, 147 (Mountain Mahogany)
Bluebunch wheatgrass (Whitmar)	2	
Thickspike wheatgrass (Critana)	1	
Indian ricegrass (Rimrock)	2	
Fourwing saltbush (Wytana)	1	
Utah sweetvetch	1	

***Double the seeding rate and harrow seed into the soil when broadcasting. Use seed that is certified and free of noxious weeds.**

11. The operator will monitor the location for the life of the project to detect the presence of noxious and invasive species. The operator will be responsible for eradication of noxious weeds and cheatgrass on the location using materials and methods authorized in advance by the Field Manager.
12. The operator shall prevent use by migratory birds of reserve pits that store or are expected to store fluids which may pose a risk to such birds (e.g., migratory waterfowl, shorebirds, wading birds and raptors) during completion and after completion activities have ceased. Methods may include netting or other alternative methods that effectively prevent use and that meet BLM approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to prevent use two weeks prior to when completion activities are expected to begin. The BLM approved method will be applied within 24 hours after completion.
13. There will be no development allowed from 1 December through 30 April to avoid big game severe winter ranges (TL-08 White River ROD/RMP).
14. The use of interim reclamation techniques will be used to the extent practicable on this pad such that: 1) all available topsoil material would be used to rehabilitate recontoured cut and fill slopes and areas outside the anchors (maintaining the viability of the soils for final reclamation), 2) production facilities are located to maximize the extent of surface disturbance available for recontouring and reclamation after completion operations and through the productive life of the well (e.g., where access road enters pad), and 3) all disturbed areas are reseeded and, if necessary, effectively fenced to control livestock use once well completion activities have been finalized (this includes cut and fill slopes of roads and trial application on the roadbeds themselves).
15. The operator is responsible for informing all persons who are associated with the project 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 uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). 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 site can be used (assuming in situ preservation is not necessary)
 - a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

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 cost. 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.

16. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), 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.

17. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

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 cost. 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.

18. If it becomes necessary to excavate into the underlying rock formation to construct the access, level the well pad or excavate the reserve/blooiie pit a paleontological monitor shall be present for all such excavations.

19. All permanent (onsite for six [6] months or longer) structures, facilities and equipment placed above ground shall be painted Munsell Soil Color Chart Juniper Green, or equivalent within six months of installation.

20. An estimate of the volumes of water that may be used for construction, drilling, completion, fracing and dust abatement will be provided to the WRFO hydrologist by well and by pad.

21. As per Onshore Order #1 requirements, the operator will submit an amendment to the current Surface Use Permit via Sundry Notice Form 3160-5 before construction activities begin detailing:

- The source of all water used for construction, drilling, completion and fracing operations
- Any water haul routes that may be used

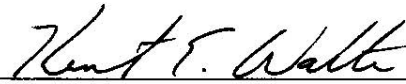
- Municipal water provider, the permit number or a copy of the water right permit being use for each water source (see http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/Onshore_Order_no1.html, section 2e for more information)

COMPLIANCE/MONITORING: On-going compliance inspections and monitoring of drilling, production and post-production activities will be conducted by White River Field Office staff during construction of well pad and access road. Specific mitigation developed in this Environmental Assessment and the lease terms and conditions will be followed. The operator will be notified of compliance-related issues in writing, and depending on the nature of the issue(s), will be provided 30 days to resolve such issues.

NAME OF PREPARER: Keith Whitaker/Jay Johnson

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL:



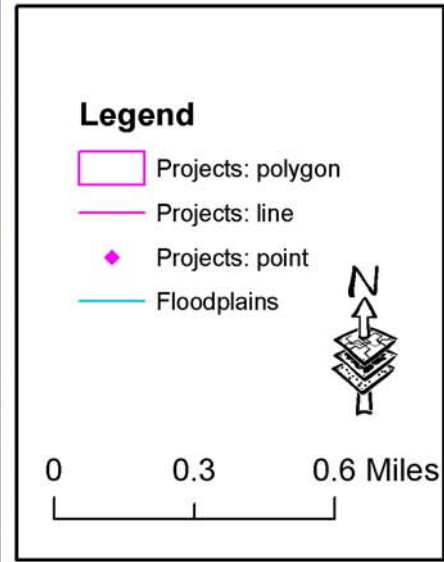
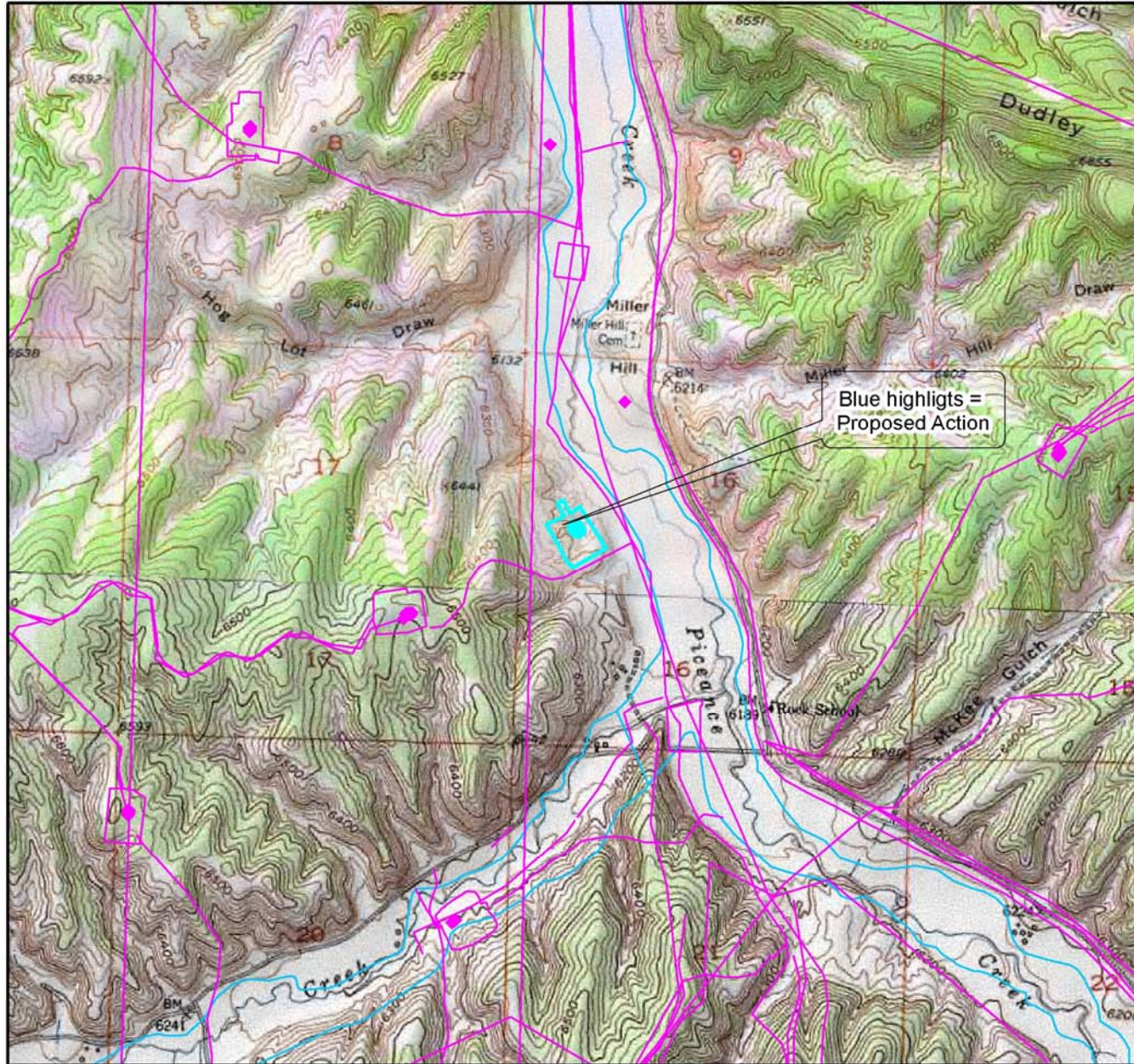
Field Manager

DATE SIGNED:

01/14/09

ATTACHMENTS: General Location map of the Proposed Action

DOI-BLM-CO-110-2009-0043-EA



1/13/09

