CONDITIONS OF APPROVAL

CONDITIONS OF APPROVAL					
Project Type	Oil Wells, Pads, Roads, Buried Lines			**EA Number**	WY-020-E06-096
Proposed Action	Bison Ranch #21-1 Well and Access Road				
Applicant	Windsor Energy Group LLC	**Author**	Seefeldt	**Date**	May 24, 2006
Case Number	**Well Number & Name**	**Legal**			
CA6-014	Bison Ranch #21-1	T54N, R102W, Sections 20-22			

GENERAL INFORMATION

One federal well is planned for the current pad and, depending on success of the first well, there is a possibility of another private well for the same pad. The pad and entire access road are on private surface.

If continued drilling is successful, multiple wells may be drilled from a minimal number of well pads. Before any additional federal wells are approved, appropriate analysis will be undertaken to assure it comports with a long term development strategy. At some point (2nd or 3rd well), a complete field development strategy will be developed and analyzed in an environmental document to assure minimum surface disturbance and visual intrusion and maximum protection of watershed, wildlife and other values.

All surface operations will comply with the intent of 43 CFR 3101.1-2; 3101.1-3; 3160, Onshore Oil and Gas Orders No. 1, No. 2, and Nos. 6 & 7, Notice to Lessees (NTL's) 2-B, 3-A, and NTL-4A, and the BLM-USGS-USFS brochure, "Surface Operating Standards for Oil and Gas Exploration and Development" (Goldbook: Fourth Edition – 2006) and appropriate, current State of Wyoming standards including storm water discharge requirements of the Water Quality Division of the Wyoming Department of Environmental Quality (Barb Sahl at 307-777-7570/e-mail: bsahl@state.wy.us). Where State of Wyoming standards for storm water discharge mitigation exceed these conditions of approval they will supersede BLM conditions of approval.

The operator will coordinate with US Army Corps of Engineers, as required by law in regards to the need for 404 permit (s) associated with the proposed action - esspecially for the crossing and installation of the 4 foot diameter culvert on the drainage the access road will cross.

All actions will be subject to the lease stipulations shown on the table below. Exceptions to these stipulations will be considered, but only if all concerns that prompted these stipulations have been resolved to the benefit of the resource. This may be done by appropriate measures in this document or field inspections, which, in the case of wildlife stipulations, demonstrate that affected species are not present or will not be seriously impacted by actions associated with this project.

RESOURCE CONCERN	LEASE STIPULATION
Big game crucial habitat (winter range, migration corridors, etc.)	No surface use from Nov. 15 to April 30; to protect important big game winter range (Operations and maintenance excluded).
Sage Grouse and Raptor nesting sites	No surface use from Feb. 1 to July 31 to protect sage grouse and raptor nesting sites (Operations and maintenance excluded).
	EXCEPTION: This stipulation is excepted to allow drilling after June 30, 2006.
Class II Visual Resource Management Areas.	Surface occupancy or use restricted or prohibited pending completion of acceptable plan for mitigation of anticipated impacts to protect Class II Visual Resource Management Areas.

1. EXISTING ROADS

All traffic will be confined to new and existing lease roads and rights-of-way. The operator will upgrade and maintain access roads and drainage control (e.g. culverts, drainage dips, ditching, crown, surfacing, etc.) as necessary and/or as directed by the BLM Authorized Officer to prevent soil erosion and accommodate safe, environmentally-sound access. Culverts, ditches, water turnouts and other features will be fully functional and maintained. The operator shall restrict travel on unimproved two-track roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g. rutting in excess of 4-inches, travel outside two-track roadway, etc.). Cross-country vehicle travel is not authorized.

2. PLANNED ACCESS ROADS

GENERAL

Except for 1700 foot segment of road from the hilltop near the well pad to the well pad, the entire access road will use an existing roadway. A 300-400 foot segment of the existing road (NE of Section 21, T54N, R102W, will be reclaimed because it serves no further use – the new access road veers upslope of the existing road and then crosses the existing road as it curves back towards the south. Due to the steep grade here (15.8%), this portion of the road will be constructed in compliance with the engineering drawings submitted in the APD and with BLM's requirements for improvements, including drainage controls, low water crossings, drainage dips, culverts, and surfacing.

The road surface will be worked and seeded with the mix shown on Point 10 whether the well is productive or not. The cut and fill slopes will be seeded in the fall of 2006.

CLEARING AND GRADING

Where actual road construction occurs, suitable topsoil will be stripped to an average depth of six inches and stockpiled for subsequent application on the inslopes and back slopes of ditches; **or** roads without stockpiled topsoil will be reclaimed through mulching, seeding, and fertilization at final abandonment in order to make up for lost topsoil.

Aggregate will be applied to the road where necessary for safe passage, road stability, and drainage and erosion control. To blend into the landscape, it will be dark colored pit run like that found in BLM's Windy Flats Community Pit.

LOW WATER CROSSINGS

The road will cross at the channel bottom of the drainage. Approach ramps will be used as necessary. Where needed, approach ramps will be cut into the sides or banks of the drainage to assure that the center line gradients and the intersection gradients are not too steep or abrupt to accommodate anticipated traffic. In no case will the drainage be filled so that water is impounded; material will be placed on the banks near the road above anticipated high water.

The newly constructed sub-grade will be shaped and bladed as necessary to prepare a safe, stable roadbed. Where necessary to create a firm, stable bottom, fabric and riprap will be used. Geotextile fabric will be applied to the channel bottom and extend up the approach ramps to within two feet of the top; at least two feet of the fabric will be buried six inches into the ground

for anchoring. Fabric material may be woven or non-woven but will meet AASHTO M 288 Separation and Stabilization Specifications for Class 2 of service. Pit-run aggregate will be placed on top of the fabric in the channel bottom and extend up the approach ramps

DRAINAGE DIPS

After the road is upgraded for production, drainage or runoff will be returned to the natural drainage direction by means of drainage dips, which will have sufficient height to assure that water is turned and does not continue along the gradient of the road.

Drainage dips that do not effectively turn water as desired or are not expected to work effectively because of poor soils or other factors will be properly reinforced with aggregate. Pit- run aggregate will be applied at a depth of at least six (6) inches to the crest of the drainage dip starting at the channel bottom, extending up to the crest and continuing at least twenty-five feet (25') beyond the crest of the drainage dip. It will also extend to the edges of the running surface of the road.

CULVERTS

One 48" culvert will be installed at the drainage crossing near the dam and corral. The installation area will be cleaned of dirt prior to culvert installation. One 24" culvert will be installed in the drainage immediately before the well pad. The outlet of both culverts will be armored with rip rap placed on geotextile fabric to reduce the potential for erosion. Culvert installation will comply with general discussions in the following paragraphs.

Culverts will be set on native ground or in thoroughly compacted fill. Minimum cover over culverts will be 12 inches or half the culvert diameter, whichever is greater.

Culverts in drainages will be placed on firm, uniform beds that have been shaped to accept them, aligned parallel with the natural channel and set at a gradient that maintains the natural drainage velocity so sedimentation or erosion is not increased.

Culverts used as laterals to provide cross drainage between natural drainage will be skewed to form an entrance angle of 45 degrees to 60 degrees with the side ditch, and have a gradient equal to or slightly greater than the approach ditch gradient. Suitable ditch blocks will be constructed below culvert inlets.

The inlets and outlets of culverts will be modified as necessary to protect from debris, and limit excessive channel scour and erosion. The modifications may include racks, cribs, raisers, drop inlets, downspout, energy dissipaters, flared ends, headwalls, or rip-rap. Geotextile fabric shall be placed beneath all riprap.

The outlet of all culverts shall extend at least one foot beyond the toe of any slope.

CATTLE GAURDS

A thirty foot (30) DOT approved cattle guard will be installed at the access from State Highway 120 as agreed to by the landowner at the access, Mr. Blackstone. An eighteen (18) foot cattle guard will be placed at the fence which divides Mr. Dager's and Mr. Blackstone's property line. Each cattle guard will have a lockable swing gate made of metal to accommodate movement of cattle.

3. LOCATION OF EXISTING WELLS

See Operator's Plan.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

After the well is completed but before permanent facilities are installed, a single surface line may be will be laid along the road for temporary production of the well. Should the well incur operational problems (i.e. freezing, slugging, etc.) and not be able to produce effectively, the minimum amount of equipment to properly produce the well will be placed at the well pad. At a minimum, this would include a three-phase separator and gas metering equipment.

Permanent production facilities will be installed within 9 months of the first production report unless other agreements are made with the surface owner and the authorized officer.

Production or evaporation pits will not be allowed on the well pad as a permanent solution – all fluids will be piped to the off-site facility.

Any new permanent production structures, other than wellheads and electrical devices will be painted a camouflage mix of colors to blend into the site. This applies to facilities at the wellhead and the off site production facilities. The pattern will be satisfactory to the authorized officer and the surface owner. The exception to these painting requirements would apply only to those items requiring Safety Colors.

For permanent production, the minimum production equipment that will be required on the well pad will be the well head and a small building (8' high x 8' square) that would contain some chemicals (paraffin inhibitor, methanol, etc.) and a small pump to inject the chemicals into the flow stream. A separator and associated metering equipment (8' high x 6' wide x 20 feet long) may be necessary, depending on the amount of liquid produced with the gas.

All facilities will be screened by mound construction and creative facility placement so they are not visible from surrounding ridges. Windsor will visually model seen areas to assure the effectiveness of mounding is fully understood before construction. If mounds do not fully or satisfactorily screen the facilities, additional mitigation will be necessary including camouflage painting; shrub and tree planting with appropriate grading to ensure they receive adequate moisture; or additional forms of concealment. This work will occur either after the second well is drilled or it is determined that it will not be drilled. If a second well is drilled, facilities serving both wells will be mitigated as discussed above. All enumerated functions will be subject to approval of the authorized officer in consultation with the land owner.

Facilities shall be either completely invisible from any key observation points identified by the BLM in consultation with the surface owner because of screening, or will be disguised by camouflaging such facilities as cabins, barns or other features of the characteristic landscape. Production facilities and screening may be constructed of whatever materials are needed for safe effective operation so long as they appear as features in the characteristic landscape and do not attract attention. This could include fiberglass, metal, soil, vegetation or other materials. All disturbed areas including the well pad and access road shall be fully revegetated to within 5 feet of the production facilities with native plant species to within 80% of the basal area of surrounding undisturbed area species. This paragraph supersedes any conflicting provisions with the two paragraphs above.

Well-head telemetry will be used to reduce the need to access the well and production locations.

All other permanent production facilities will be located on a remote facility about a mile or more to the west of the well pad. Its final location will depend on test results of this well, in turn, are critical to Windsor's decision to drill other wells in the area. The off-site production facility will employ 'Visual Resources Management - Best Management Practices' which may include low profile tanks, camouflaged paint and other applications to lessen its visual effect. The facilities may also be screened with trees, shrubs, berms, and other features.

The final pipeline route between the well and the offsite production facilities will follow the access road at least until the crossing in the NW of Section 21, T54N, R102W. From there, the route will be determined by locations of wells, the location of off site production equipment, the requirements of the land owner and environmental analysis.

To assure testing so that good decisions can be made on drilling, locations of permanent buried lines, and the off site production facility, Windsor will be allowed to employ temporary facilities until September 30, 2007, but must submit all plans for permanent production facilities, buried lines(s), and well pad development by June 1, 2007.

5. LOCATION AND TYPE OF WATER SUPPLY

To limit heavy truck traffic during drilling, water tanks will be placed close to the access road in the NW of Section 21, T54N, R102W in the vicinity of the stream crossing close to where the 48" culvert will be used. The tank(s) will store water for drilling. Water will be pumped to the well via a temporary 2" diameter. water line placed on the surface following the access road alignment. Only potable, irrigation or river water will be used so that if leaks or spills occur there will be no risk of soil contamination. The tanks and surface pipeline will be removed after drilling is concluded.

6. SOURCE OF CONSTRUCTION MATERIALS

When available, onsite materials will be used for building locations and roads. If materials are not available onsite, material will be brought in from other sources such as the BLM's Windy Flats Community Pit or other sources that possess a range of colors that matches the colors found in the surrounding landscape. Proper permits will be obtained prior to the removal of materials from other sources. Construction activities will not be conducted using frozen or saturated soil material or during periods when watershed damage or excessive rutting is likely to occur.

7. METHODS FOR HANDLING WASTE DISPOSAL

CUTTINGS AND RESERVE PIT FLUIDS - RESERVE PITS

A closed loop mud system will be used. The operator will contain cuttings separated from normal, non-toxic drilling fluids in a pit set against the high wall of the pad.

The pit will be oriented to prevent collection of surface runoff. A trench or diversion ditch may be needed on the uphill side of the pad to divert surface drainage around the pit and pad. If constructed, the trench will be left intact until the pit is closed.

The pit will be sized so that all anticipated contents can be contained with at least three (3) feet of free board so the contents can be covered with at least three (3) feet of fill after the pit is no longer needed. The pit will be reclaimed as soon as possible after removal of the drilling rig and after the cuttings have been allowed enough time to dry out.

The cuttings pit will be lined with an impermeable liner having a permeability less than 10^{-7}cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use.

Drilling fluids will be transported to a disposal facility with appropriate permits to receive such spent drilling fluids. Final backfilling will comply with relevant measures of Point 10 of these Conditions of Approval.

Any release of pit fluids or cuttings occurring in storage will be remediated and reported in compliance with standard practice and regulations.

All pits will be kept free of oil. If for any reason petroleum fluids are released on any pit, they will be removed in 24 hours or the pit will be netted.

WASTE AND SANITATION

The operator will comply with all State and Local laws and regulations pertaining to disposal of human and solid waste. The location will be maintained in a sanitary condition at all times. Garbage and other waste material will be gathered and disposed of in an approved sanitary landfill.

Hazardous substances specifically listed as hazardous waste or demonstrating a character of a hazardous waste (see 40 CFR Part 261 - Identification and Listing of Hazardous Wastes; and 40 CFR Part 355 - Emergency Planning Notification) will not be improperly used, produced, stored, transported or disposed of in permitted (lease, unit) operations.

The operator and its contractor(s) will maintain a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling completion, and production operations for this project. Hazardous materials (substances) which may be found at the site may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous and Extremely Hazardous Substances and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

8. ANCILLARY FACILITIES

Ancillary facilities will be temporary. No camps or airstrips will be constructed.

9. WELL SITE LAYOUT & USE

Before any dirt work or pit construction begins, a minimum of six inches of topsoil will be removed from the location and stockpiled. Topsoil will be scraped from all areas where dirt work is necessary. It will not be buried under fill material. During construction and restoration, dirt moving equipment will not extend beyond forty feet of the disturbance area as shown on Exhibit VI as submitted in the APD.

10. PLANS FOR RECLAMATION OF THE SURFACE

All equipment, hardware, waste or debris will be removed prior to any reclamation or stabilization actions. Linear disturbances such as newly constructed pipelines or reclaimed pipelines or roads, will be cross drained by water. On short, steep grades, additional erosion control structures will be located as determined by local conditions.

A berm at least one foot in height may be constructed around all pads to contain spills during the production phase of the well. Where substantial upslope runoff is anticipated, a diversion will be constructed above the berm to prevent water from running onto the pad to reduce the potential for flooding.

All equipment, hardware, waste or debris will be removed prior to any reclamation or stabilization actions.

INTERIM RECLAMATION

After all anticipated wells are drilled on the pad, the operator, land owner and authorized officer will meet to determine permanent reclamation of the pad and road for the life of the wells, pipelines and other facilities as discussed in other parts of these conditions of approval. Once agreed to, the plan will be implemented by the operator.

If the well is productive, the operator will provide an interim reclamation plan within two months of the first production report. It will define those parts of the pad needed for additional drilling.

For production, unused areas around wellpads, unused pits, and any other surfaces not occupied for field use, will be graded to form stable slopes, blending with the natural terrain. Water bars or other erosion control structures will be built as needed, the areas will be ripped, the topsoil replaced and the areas seeded.

All cut and fill slopes of the pad and access road will be reseeded. The surface of both the pad and road will also be seeded. Seeding on the pad will extend to within fifteen feet of the well head.

FINAL RECONTOURING AND ABANDONMENT

The following practices will be employed for final abandonment.

Before recontouring takes place, the stockpiled topsoil and vegetative material will be scraped from cut and fill slopes of roads and pads where stable vegetation has occurred. It will be stockpiled for final distribution after the area is recontoured. The point is **NOT** to bury good topsoil that has been previously placed on pad edges or road back slopes.

Before the well pad and battery areas are recontoured, oily surface material and cuttings (provided they are not regulated under RCRA, CERCLA, or other applicable regulations) should be worked and broken into aggregates of one inch in diameter or smaller, then treated with at least 200 lbs. of fertilizer (15-15-15)/ acre, working it into the material. This should be conducted before available topsoil and vegetation is spread on the surface for seed bed preparation. Additional fertilizer may be needed to establish the desired plant growth.

All disturbed areas (pads, flowlines, etc.) will be graded to the original approximate contour. The road will be retained as graded and reclaimed for production. Modifications will be undertaken in consultation with the BLM in coordination with the land owner.

Drainages will be reclaimed to approximate the original bank configuration, stream bottom width, and channel gradient.

PITS

Any other pits will be filled, leveled or sloped to resemble adjacent terrain, when no longer needed. Cuttings and drilling mud will be allowed to dry, and then, all contents including liners will be covered with at least three feet of uncontaminated soils.

SEEDING AND SOIL AMENDMENTS

This seed mix supersedes the mix in the plan of development.

All disturbed areas (linear disturbances less than one foot in width exempted) will be seeded according to seed mix shown below:

SEED VARIETY	LBS/A.
'Secar' Bluebunch Wheatgrass	2
Western Wheatgrass	3
Needle and Threadgrass	2
Canada blue grass	2
Green Needle Grass	2
Sweet Vetch	.5
Cicer Milkvetch	.5
Green Rabbit Brush	1
Winterfat	2
The operator will include at least two pounds of three or more of the species shown in this box. (Scarlet Globemallow, Yarrow, Rocky Mountain Penstamen, Evening Primrose, Indian Paintbrush, Rocky Mountain Bee Plant, Dotted Gay Feather)	2
Totals	17

Fertilizer (16-20-0 or similar rating) will be spread on all seeded areas at a rate of 200 lbs / acre.

Preparation of the seedbed, application of seed and any soil amendment, and coverage of the seed is critical to successful re-vegetation. Unless otherwise approved, the following cultural methods will be followed:

The site may be ripped or otherwise scarified up to a maximum depth of 18" on 24" centers to prepare a rough seedbed and eliminate compacted soils. The objective is to leave an extremely rough surface for maximum snow and rainfall retention, as well as ridges to protect the surface from wind erosion.

Seed will be applied together by mechanical broadcasting to assure even coverage over the entire area to be reclaimed. The seed will be covered by harrowing, disking, or any other mechanical method of scarifying that assures seed coverage after seeding. (Note: Seeding can occur before final scarifying to leave a rough surface and provide seed coverage).

After the first year, seeded areas will be fertilized if seedling establishment is sparse.

Soil pitting, imprinting, or similar methods of seeding can be used, but must have prior approval from the AO.

All seeded areas will be mulched with native hay, grass hay or straw that is sufficiently free of weeds to meet Park County noxious weed standards. Mulch will be applied evenly at a rate of 2,000 lbs / acre. Where possible, it will be anchored by means of a disc set straight at a depth of 2-3 inches, but on steep slopes, where mechanical spreaders don't work, it will be applied by hand and anchored by other suitable means.

As much as possible, seeding will be take place in fall between the first of September and the fifteenth of October, or in spring from the time the ground is workable to the first of May. It will be repeated if a satisfactory stand is not obtained.

11. SURFACE OWNERSHIP

The surface is owned by Mr. Jim Dager.

12. OTHER INFORMATION

New construction will not take place in wet and unstable soils. Routine maintenance off prepared road and pad surfaces will take place when soils are dry enough to prevent rutting or serious erosion. Unplanned construction to control spills, fires, and other undesirable events will occur at any time. Inadvertent surface damage will be fixed within a reasonable time.

Weeds – Noxious weeds will be controlled in accordance with the operator's weed management program that was established in compliance with EPA, BLM, State, and local pesticide requirements. For BLM requirements, contact Eve Warren at 307/347-5100.

Before bringing construction equipment into the oil field the operator will spray it to remove weed seeds. This may be done with high pressure air or by a water power wash at an appropriate facility. The spraying will employ a place and method that ensures that the detached weed seeds are contained so they do not infest new areas. Before construction begins, the operator will identify and spray noxious weeds. Following construction, the operator will closely monitor all disturbed areas and will control weeds as necessary as part of the annual weed spraying and management program. Monitoring and treatment, as needed, will continue for at least three growing seasons.

The operator will inspect the construction area for the presence of both surface and subsurface utility facilities, and notify the Wyoming One Call System 1-800-849-2476 (or

www.onecallofwyoming.com) before construction activities begin. The operator will use extra safety precautions when working near or around buried lines, power lines, power poles, underground cables, or other utility installations**.**

C) CULTURAL RESOURCES

Cultural Resources, Standard Stipulation The operator is responsible for informing all persons associated with this project that they may be subject to prosecution for knowingly damaging, altering, excavating or removing any archaeological, historical, or vertebrate fossil objects or site. If archaeological, historical, Native American, or vertebrate fossil materials are discovered, the operator is to suspend all operations that further disturb such materials and immediately contact the Authorized Officer. Operations are not to resume until written authorization to proceed is issued by the Authorized Officer (AO).

The authorized officer will evaluate, or will have evaluated such discoveries not later than five working days after being notified, and will determine what action shall be taken with respect to such discoveries. The decision as to the appropriate measures to mitigate adverse effects to significant cultural or Paleontological resources will be made by the authorized officer after consulting with the operator/holder.

The operator/holder is responsible for the cost of any investigations necessary for the evaluation, and any mitigative measures required by the Authorized Officer. The AO will provide technical and procedural guidelines for the conduct of evaluation and mitigation. Upon verification from the AO that the required evaluation and/or mitigation has been completed, the operator will be allowed to resume operations.

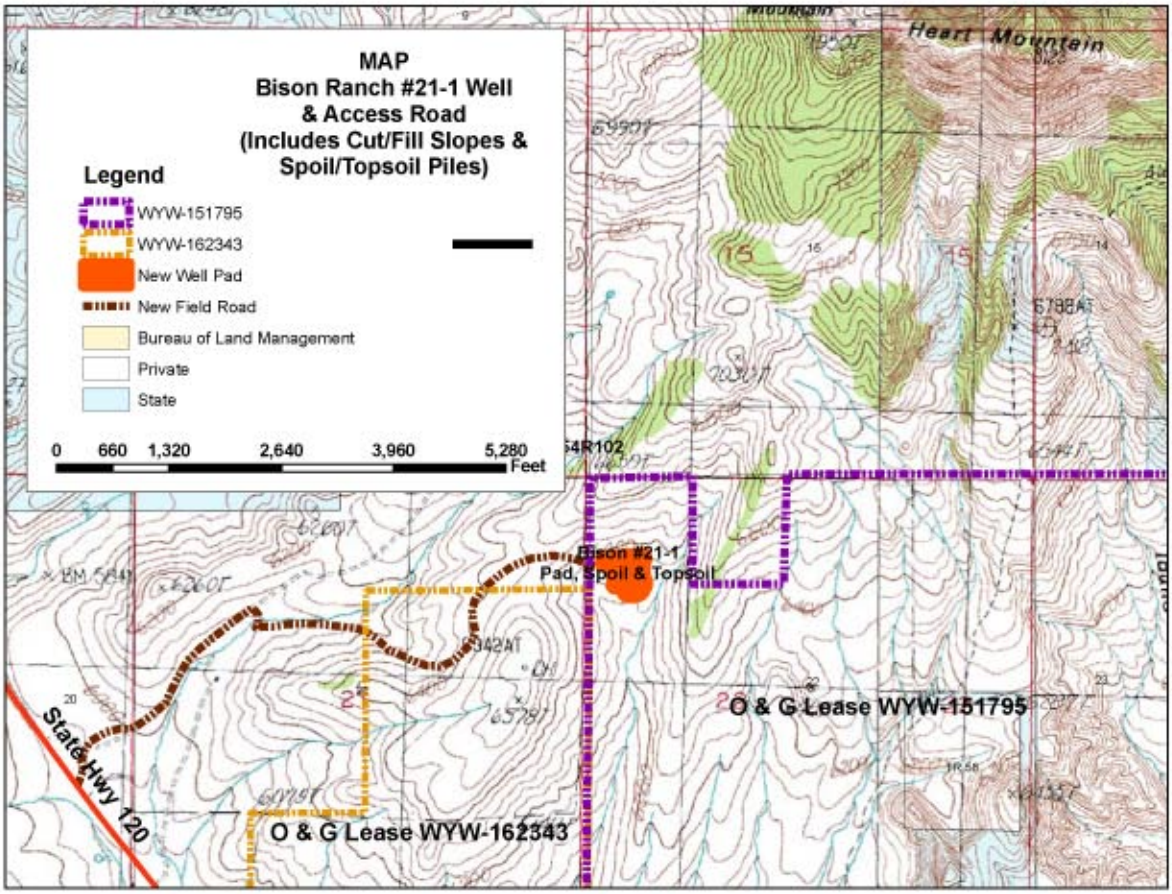
Native American Resources The area under consideration contains no known areas or locations of religious or cultural concern to Native Americans. If such areas are subsequently identified or become known through the Native American notification or consultation process they would be considered during the implementation phase. The BLM would take no action that would adversely affect these areas or locations without consultation with the appropriate Native Americans.

Human Remains If human remains are discovered or suspected the operator/holder shall suspend operations immediately, physically guard the area, and notify BLM immediately.

ENVIRONMENTAL ASSESSMENT – BLM – CODY

EA PROJECT DATA					
Project Type	Oil Well, Pad, Roads, Buried Lines			**EA Number**	WY-020-E06-096
Proposed Action	Bison Ranch #21-1 Well and Access Road				
Lease Numbers	WYW-151795 & WYW-162343				
Applicant	Windsor Energy Group LLC	**Author**	Seefeldt	**Date**	May 26, 2006
Case Number	**Well Number & Name**	**Township**	**Range**	**Section(s)**	**Cultural Number(s)**
CA5-022	Bison Ranch #21-1	54N	102W	20, 21	200550121

Need for Proposed Action Windsor Energy Group LLC has filed an application for permit to drill and produce the Bison Ranch #21-1 well (see Map). The permit would be kept on file in the Cody Field Office and considered an integral part of this Environmental Assessment (EA) by reference. The 8-point plan (drilling, geology, etc.), 13 point plan (surface use; well pad, road, etc.), and associated cultural and T&E consultation are considered part of the proposed action. If needed, Windsor submits a Drilling Contingency Plan with each APD to comply with Onshore Oil and Gas Order No. 6, Hydrogen Sulfide Operations.



The entire project is on non-federal surface. Most of the project occurs on lands owned by Jim and Ginger Dager though approximately 900 feet of access road closest to Highway 120 crosses land owned by Mr. Charles Blackstone. The Nature Conservancy and the Trail Creek Ranch own lands immediately east of the Dagers, which include the top of Heart Mountain. Only about fifty five

percent of the project occurs on the two federal leases shown on the map above. BLM's regulatory responsibility is generally limited to actions related to the lease: on the surface BLM has more responsibility inside the lease boundary than out side of it, however, where an action retains a federal attachment beyond the lease boundary, BLM would require operators to meet federal requirements. Where the buried line carries federal product, that line would generally be considered a federal action. There is a responsibility under the National Environmental Policy Act and other acts to document potential effects of a federal action. Mr. and Mrs. Dager have requested that the BLM apply its most recently developed Best Management Practices (BMPs) for oil and gas development. The BMPs specify development standards that must be met on federal wells, particularly on wells like the Bison Ranch #21-1, which is located in an area with high scenic and environmental value. The BMPs are, however, subject to limitations imposed by safety concerns, available technology, and other factors that ensure a sound operation and development plan not subject to repeated failure because of faulty design in attempting to follow BMPs.

One of the landowner requests is for most production facilities to be located on a separate facility more than a mile from the well pad. Off site production facilities are one of the BLM's BMPs for minimizing adverse visual effects in high quality environments. The production facility ocation, however, is almost a half mile beyond the boundary of Lease WYW-162343, and though BLM may have a responsibility to require off-site facilities (so far as they are safely and technically feasible) it may be difficult for BLM to enforce anything beyond the lease boundary making the total action more private than federal. Similarly the second proposed well on the pad would be drilled to a target on non-federals minerals. Hence, federal BMPs which, if fully implemented, could greatly minimize most environmental effects, may be imposed by BLM on only a small part of the entire development - if indeed drilling success were to warrant full field development. Finally, in honoring requests of surface estate owners, BLM may impose conditions of approval where it has responsibility and authority, but it cannot impose restrictions on an operator that would be more stringent than what would be applied to federal surface.

The proposed action would allow Windsor to exercise their right to drill, explore, and produce hydrocarbons. (The decision to lease is discretionary, but after lease issuance the Secretary of Interior must normally allow enjoyment of rights granted under the lease or buy back the lease.)

<u>Relationship to Statutes, Regulations, Policies, Plans or Other Environmental Analyses</u> BLM policy requires that environmental effects be properly assessed and documented in an National Environmental Policy Act (NEPA) review to assure the decision on the permit is informed and the affects are not significant. The primary regulation governing the analysis process is 40 CFR 1500 (RE: The President's Council on Environmental Quality implementing regulations for procedural provisions of NEPA). BLM regulations for oil and gas development are found in 43 CFR 3100. The principal statutes governing oil and gas production on public lands are the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976.

This action conforms to the Cody RMP/EIS (signed 11/8/90) as required by 43 CFR 1610.5. That plan specified an objective "to maintain or enhance opportunities for mineral exploration and development, while providing protection or enhancement of other resource values". It anticipated the drilling of between 40 and 50 wildcat wells and 620 and 630 development wells in the decade following signature of the ROD (November 1990; See Cody Resource Management Plan - Final EIS, pg. 20). At this time, about 50% of anticipated wells have been drilled.

Two issues have been identified in the analysis in part because stipulations were applied to Lease WYW-136310 pursuant to the Cody Resource Management Plan. The additional crucial big game winter range stipulation should not be an issue because drilling should be completed before

November 15, the beginning date of that timing limitation stipulation. The stipulations are based on Wyoming BLM Standard Mitigation Guidelines and shown in Appendix "B" of the Cody RMP.

The format for discussion in this document places all mitigation into the descriptions of the alternatives. This is true whether mitigation is part of what was proposed by the operator or suggested during interdisciplinary review; hence, all effects described in this section are, by definition, residual.

DESCRIPTION OF ALTERNATIVES

Two alternatives will be considered: 1) not approving the permit, 2) approving the permit. Relocation was considered as an alternative and rejected because the current well site is relocation from a site with poor drainage and slope characteristics.

1) NOT APPROVING THE PERMIT - under this alternative the action would not be approved; other activities like grazing, hunting would continue along with and associated environmental effects.

2) APPROVING THE PERMIT - under this alternative the Proposed Action would be approved. The SPECIFIC WELL INFORMATION BELOW describes the specific elements and acreage of the project. The succeeding narrative provides a more thorough description of the operations.

Access Road (Sta. 0+0 - 42+20)	4220 Feet in Length	0.0	3.90
			2.13
Access Road (Sta. 65+10 - 76+10)	1100 Feet in Length	0.0	1.02
			0.29
			0.31
			0.23
			0.62
			2.91
			11.41

Note: On lease disturbance is shaded. The surveyor calculated total road length of 7923 feet up to 40 feet wide for a total disturbance of about 7.3 acres.

The 11.4 acres of disturbance represents the maximum anticipated disturbance. At the surface owner's request, road construction will be limited to what is absolutely necessary and conventional

mud handling was replaced by a closed mud system. However, there are some places where the road will require all measures in the engineering plan. Similarly, a closed mud system still requires a pit for cuttings though it is smaller.

General Under Alternative 2, there are four potential stages in the life of an oil or gas well: initial construction; drilling; production (if economic reserves are present); and, abandonment and reclamation.

Operations – All operations will be kept on the pad except for actual construction of the pad or spill containment.

Historic & Pre-historic Values - Historic and pre-historic values are addressed by participation (Windsor Energy Group LLC& BLM) in the Section 106 process (standard cultural conditions submitted in plan of development are positively binding on Windsor).

Exception of Lease Stipulations - The three key lease issues, which are also reflected in lease stipulations, impose requirements on the action. Where conflicts are found, BLM guidance allows for exception, modification, or waiver where impacts can be mitigated or avoided.

Class II Visual Resource Management (VRM) – Surface disturbing activities are prohibited unless they can be mitigated. BLM's Best Management Practices (BMPs) add greater emphasis reducing adverse visual effects by spelling out exact practices that must be employed to reduce or even eliminate adverse visual effects, but such measures would be consistent with sound and safe production practices.

Measures may include, but not be limited to special re-vegetation measures like interim cover crops, tree planting, mulching and irrigation mound construction. They also include aggressive interim reclamation such as seeding up to the well head; severe limitations on facilities may include no more than a well head placed on the pad. Any facilities permitted on the pad would have to be completely camouflaged. For road construction, the road would be built to the standard needed for all foreseeable activity. The cut and fill slopes would be reseeded in the fall of 2006. The road bed would also be worked and seeded. Gravel would be obtained from the Windy Flats community pit because its dark grey color is less visually intrusive than gravel from other sources (See the ENVIRONMENTAL EFFECTS section for an analysis of the affected environment, effects and mitigation.)

There would be a concrete requirement that facilities would be either completely invisible because of screening or would be disguised by camouflage with such facilities as cabins barns or other features of the characteristic landscape. They may be constructed of whatever materials needed for safe effective operation so long as they appear as features in the characteristic landscape. This could include fiberglass, metal or other materials.

Big game Crucial Winter Range – November 15 to April 30 (winter range, migration corridors, etc.) Drilling between November 15 and April 30 is not anticipated and would not be allowed unless no adverse affects would occur.

Sage Grouse Nesting – Drilling may be allowed as early as July 1, 2006 if it can be determined that it would not adversely affect sage grouse nesting. Most sage grouse nesting activity is completed in this area by June 15th.

Initial Construction The steps shown below would be taken to prepare the pad for drilling and production. (For more specific descriptive information see tables above.)

Topsoil – Six inches (6") of topsoil is stripped from the pad area and stored for later reclamation; none would be removed on road.

Work Area - For pad construction, equipment use may extend 40' outside the outer limits of stockpiles, cut slopes and fill slopes.

Pad – The pad is graded large enough for safe drilling operations; the rat and mouse holes drilled. The plan for the pad, as submitted, would accommodate the two wells in the permit (one federal and one non-federal).

Road – The road is graded to permit reasonable, all-weather access for all drilling, completion and production. It is about 1.5 mile long and width for construction disturbance is estimated to be 40 feet. Actual road surface width would be about 16 feet with some wider sections for curves.

Watershed Protection – The operator would comply with storm water discharge requirements of the Water Quality Division of the Wyoming Department of Environmental Quality (Barb Sahl at 307-777-7570/e-mail: bsahl@state.wy.us). Where standards for storm water discharge mitigation exceed these conditions of approval they would supersede BLM conditions of approval.

Wetlands – The operator would coordinate with the U. S. Army Corps of Engineers (USACE), as required by law, to ensure compliance with Section 404 of the Clean Water Act.

Drilling - Rig-up and drilling (rotary rig) generally begin soon after pad construction. A BLM petroleum engineer reviews the drilling (8-point) plan including the proposed casing and cementing program. (For more specific descriptive information see tables above.)

Casing – Casing is inspected to ensure that it meets or exceeds standard safety factors required for tension, collapse, and burst criteria; it is properly set to isolate contaminants and protect fresh-water aquifers.

Cementing – Cementing depths properly set with material that meets approved specifications.

Blowout Preventer – A blowout preventer is used in all drilling operations; the rated working pressure of the stack and choke manifold is reviewed to ensure it is adequate to handle anticipated bottom hole pressures.

Drilling Mud – The drilling fluids are of a density sufficient to contain wellbore pressures, but not so high that they exceed fracture gradients of formations to be encountered.

Hydrogen Gas – If needed, an H2S contingency plan is prepared, approved and followed to control drilling operations so that sour gas does not endanger worker or public safety.

Reserve Pit – There will be no reserve pit: the operator will use a closed mud system and haul all wastes to an approved land fill.

Production - If the well is produced the following steps can occur without further approval. Additional permits are required for deepening, sidetracks, and re-completions to review for bursts in

the casing, leakage, blowouts or other problems. (For more specific descriptive information see tables above.)

Structures – The only structures would be the well head, a small building for chemicals and chemical injection pump (approximately 8' high x 8' square) and a separator facility and associated metering equipment (8' high x 6' wide x 20 feet long), which may be necessary depending on the amount of liquid produced with the gas. (Locating the separator on pad should reduce the number of trips needed to manage the well.) Production or evaporation pits would not be allowed on the well pad as a permanent solution – all fluids would be piped to the off-site facility.

Dirt Work - Unused portions of the pad would be graded to blend with surrounding contours, topsoiled and seeded to blend with landscape. Additional grading, mulching and irrigation may be included to camouflage facilities in a reasonable amount of time. Mounds may be required for screening. Native conifers may be added to provide additional screening. Over the life of the well, temporary pits may be dug to accommodate work over and production stimulation activities.

Production Facilities – Separators would not be allowed on the pad if they could not be completely camouflaged. This could include disguising them as cabins or old barns.

All other permanent production facilities will be located on a remote facility. The off-site production facility could employ low profile tanks, camouflaged paint and other applications to lessen its visual effect, but this would be outside the sphere of federal control. It could also be screened with trees, shrubs, berms, or mounds and other features.

Well head telemetry would be used to reduce the need to access to the well location(s) as much as possible. This would limit adverse effects to wildlife and allow re-establishment of vegetation on the road.

Production Stimulation – To increase production the paying formations are fractured under pressure to increase the flow of hydrocarbons to well bore; acids are also injected into carbonate formations to open pore space.

Workovers – Throughout its useful life, the well requires periodic workovers to replace or repair sucker rods, pumps, tubing, etc. These components may need to be repaired and replaced throughout the life of the well.

Abandonment & Reclamation - The well would be plugged and abandoned, either after drilling or after some extended term of production.

Equipment – The well head, tanks, buildings and other equipment are removed; pipelines are purged for abandonment or other use. If they are abandoned, the ends are capped.

Cement plugs - Oil or gas horizons, fresh water zones, lost circulation zones, casing stubs, and casing shoes are isolated with cement plugs.

Surface plugs – Surface plugs are placed in all casing that extends to the surface, including any annular space.

Remediation - Oily wastes and other contaminants are either stabilized or removed.

Reclamation – Well pads and production pads would be graded to the approximate original contours, ripped, topsoiled and then re-seeded; road would be graded and retained for surface owner's use depending on his wishes at the time. Because this is non-federal surface, final reclamation will reflect concerns of the surface estate holder. It is expected the road would remain with its seeded back slopes and running surface.

ALTERNATIVE CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

An alternative was briefly considered to analyze affects of the project without application of the BMPs. After considerable research and discussion, it was determined that for this area is in a Class II Visual Resource Zone, such consideration would be out of compliance with BLM policy. For this reason, this alternative was removed from further consideration.

ENVIRONMENTAL EFFECTS There is a general discussion of project setting and the affected environment, but the specifics of the affected environment are addressed along with environmental affects under the general categories of "Geology and Ground Water; Soil, Water & Air; Flora & Fauna; Recreation; and, Cultural, Paleaontological & Native American Resources." Ground water is discussed with geology while surface waters are discussed under the effects to soil, water and air. As discussed in the proposed action, 11.4 acres is the maximum disturbance anticipated. Even for drilling, disturbances are expected to be less than 11 acres.

Mandatory elements must be considered in every EA or EIS to comply with existing law, Executive Order or regulation. Elements marked with an asterisk "*" are either not present or are not substantively affected; the words, "see text", direct attention to the text where environmental consequences are summarized.

Air Quality	See Text		Wastes, Hazardous or Solid	See Text	
Areas of Critical Environmental Concern	*	*	Water Quality Drinking/Ground	*	*
Cultural Resources	See Text		Wetlands/Riparian Zones	*	*
Farm Lands (prime or unique)	*	*	Wild and Scenic Rivers	*	*
Flood Plains	*	*	Wilderness	*	*
Native American Religious Concerns	*	See Text	Environmental Justice	*	*
Threatened or Endangered Species	*	*	Invasive, Non-native Species	See Text	

* *Not present or not substantially affected*

PROJECT SETTING AND THE AFFECTED ENVIRONMENT The well pad and road are on the west slope of Heart Mountain in the headwaters of the Cottonwood Creek drainage which flows into the Shoshone River. The off site production facilities would be located in the Skull Creek drainage which flows into the Pat O'Hara drainage, which empties into the Clarks Fork of the Yellowstone river about fifteen miles to the north. Oil and gas has occurred in the project area as described below.

1. There are at least seven Plugged & Abandoned (P&A) wells within a mile radius of this proposed well. There are no producing wells within this one mile radius.

2. The Heart Mountain Field is roughly two miles north of this proposed location.

3. The closest producing well is roughly 1.5 to 2.0 miles to the north.

4. The Discovery well (in section 8) for the Heart Mountain Field was drilled in 1948.

5. Within the Heart Mountain Field there are 11 producing wells and 11 P&A'd wells.

However, in spite of the highway and some mineral and residential development, wildlife does use the Heart Mountain area. In fact elk have expanded east toward the north slope of Heart Mountain where there is a resident herd of about 150 elk and a migratory wintering herd of 300-400 elk. The project itself occupies lands between 6000 and 6500 feet in elevation on the west slope of Heart Mountain. From the well site, the west slope of Heart Mountain continues for another one and one half miles to the top of Heart Mountain which has an elevation of about 8,000 feet. More specific descriptions of the affected environment and environmental consequences are described below.

GEOLOGY AND GROUNDWATER

Affected Environment - The well is being drilled entirely into sedimentary rocks and would penetrate several water bearing formations. Heart Mountain is the unique manifestation of a slide of sedimentary rock that traveled as much as twenty miles from a source area east of Cooke City Montana. Because of this, many sedimentary strata found close to the top of Heart Mountain are actually older than the deeper formations on which the slide came to rest. The shallow water tables tend to be fresher than the ones found in the desert soils in most of the Big Horn Basin. Deeper aquifers occurring in oil-bearing formations are less saline and more acidic - reflecting the occurrence of sulfur in various chemical states. These pay zones are rich in petroleum resources. The geologic attributes of the site are shown below:

a. Land stability: Good. (Information Source: Field Observation)

b. Subsidence: None evident. (Information Source: Field Observation)

c. Seismicity: Minor.

d. High Pressure Zones: No abnormal pressures anticipated. (Information Source: Operator's 10-Point Plan)

e. H2S Potential: Expected, adequate plan provided. (Target formation – Frontier-Dakota

f.

ENVIRONMENTAL EFFECTS OCCURRING IN EXISTING ENVIRONMENT
Production operations carry a slight risk to contaminate aquifers; risk increases as casings age & corrode

Effects - The major affect results from a casing or cementing leak that allows unwanted commingling of water or petroleum products with other aquifers or even surface waters.

EFFECTS ON GEOLOGY & GROUNDWATER SPECIFIC TO EACH ALTERNATIVE	
Not Approving The Permit	Approving The Permit
. No additional effects	Even though they are not anticipated, improper drilling or completion measures could allow contamination.

SOIL, WATER & AIR

Affected Environment – The project is on the west flank of Heart Mountain, which is rugged, deeply incised area of deep canyons separated by precipitous ridges. Soils are sandy or rocky, though

bentonitic soils are present farther to the east and farther upslope on Heart Mountain. A substantial cover of vegetation holds soil particles in place and this limits erosion and sediment loading.

ENVIRONMENTAL EFFECTS OCCURRING IN EXISTING ENVIRONMENT
Soil – The project area is grazed but has few other effects on the natural system.
Water – The system of dry washes could release fairly high levels of sediments during major storm events. Surface disturbance (roads, pads and features) can increase and accelerate runoff, increase erosion, and increase sediment loads generated by storm events .
Air – The existing air quality is good to excellent.

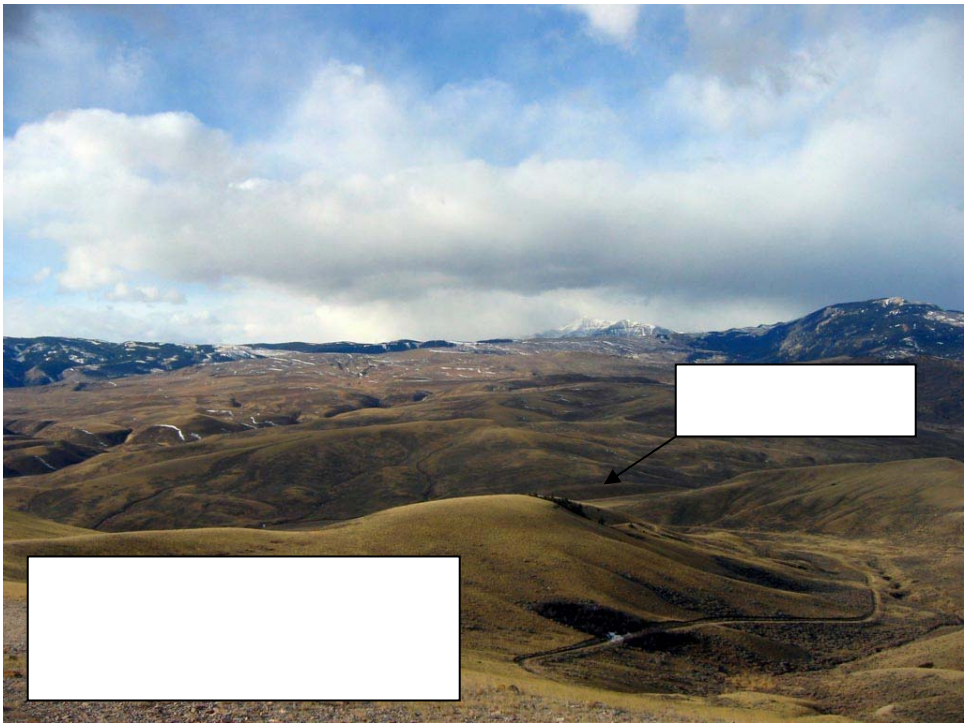
Effects - The proposed action will cause about 11.4 acres of additional disturbance that increase compaction, reduce infiltration of rainfall, and accelerate runoff both on and off the project. This increases the ability of runoff to both detach and transport soil particles, thereby increasing erosion.

EFFECTS ON SOIL, WATER & AIR	
Not Approving The Permit	Approving The Permit
Soil — No additional effects.	Soil – Up to 11.4 acres of vegetation is lost during construction, but some will be mitigated through short-term reclamation practices. Conservation practices, particularly culverts, drainage dips and seeding the road bed overcome most soil limitations as they relate to permeability & erodibility.
Water – No additional effects.	Water - Bare pads and spoil piles cause some unavoidable erosion and sediment loading. Conservation practices discussed above ameliorate some of these effects.
Air –No additional effects.	Air – Slight affects from engine emissions (drill rig & vehicles) and dust from vehicular traffic. Dust can be blown off of graveled surfaces, but because most working surfaces will be planted to grass, it is not expected to be a serious problem.

FLORA AND FAUNA

Affected Environment –

The project area is in mixed grass prairie in a 14-15 inch rain fall zone. The soils include loams and clay loams. Vegetation includes blue bunch wheatgrass, thick spike wheatgrass, green needle grass. King fescue, Sandberg bluegrass, prairie June grass, Wyoming big sagebrush, rabbit brush and a variety of forbs.



Shrubs like chokecherry, and native rose are present, particularly on north facing slopes or sub irrigated sites. Juniper and limber pine occupy the higher elevations.

The project area is not in any BLM allotment, but in the bonding on process it was estimated that the rangeland in this area would require five acres to support an animal unit month (AUM), a unit of measurement that reflects the forage needed to support a cow/calf unit for a single month. Weeds may be present. The most recent upgrade of Highway 120 required extensive grading and reseeding. Weeds can often infest construction areas of this size, but in this case it appears prompt re-vegetation and weed management should limit infestation.

The area is the natural home of a wide variety of wildlife: mammals include mule deer, antelope, coyotes, fox, badger, mountain lion, marmots, and a variety of small mammals. Elk herds have increased their use of the area in the past ten years. There is a resident herd of about 150 animals that stay close to the top of Heart Mountain primarily on the timbered north slopes. Elk also migrate to the Heart Mountain area from summer habitat on the Shoshone National Forest and Rattlesnake Mountain to the west of highway 120. About 300-400 elk currently winter east of Highway 120 on the slopes of Heart Mountain. Elk and deer are seen along Highway 120 from Chapman Bench all the way to Skull Creek Pass. Elk are frequently seen in the project area which occupies one of the corridors between Heart Mountain and Rattlesnake Mountain. Mule deer are resident to the Heart Mountain area throughout the year, but the density of deer is low.

It appears that elk and deer have habituated to highway use and some existing petroleum production development. Deer and elk migration movements are common between the highway 120 and 296 junction and the top of Skull Creek pass on Highway 120 – a distance of 6-7 miles. However, the fact they occupy an area does not mean there are no impacts - between five and ten ungulates are road killed on Highway 120 every year. Some may be killed by oil field traffic, but mortality is probably very low on secondary roads due to much slower traffic speeds. The field produces gas and requires only a single pumper to over see the field during daylight hours, so vehicle related mortality from oil and gas activities is probably quite rare. Animal movement does not appear to have been altered by existing access roads and is common all along this portion of Highway 120.

There is a sage grouse lek about two miles southeast of the Bison Ranch #21-1 well pad. Sage grouse will nest two miles or more from leks and the project area supports sage brush stands that could provide nesting habitat. Because of this, drilling between February 1 and July 31 could adversely affect sage grouse reproductive and nesting activities. However, lek activity occurs primarily between mid-March and mid-May and is completely finished by June 1st. Females are generally incubating nests from mid-April to early June with hatching occurring between May 20th and June 15$^{th.}$ The broods are often mobile after June 30 so that they can easily avoid disturbing activities so consequently, drilling can often occur after June 30 with no adverse effects to nesting sage grouse.

There are some small mammals, songbirds, rodents and snakes and other similar wildlife in the general area that serve as a prey base for resident raptors. There are no game fish in Skull, Pat O'Hara or Cottonwood Creeks. Skull Creek and Cottonwood Creek are intermittent and Pat O'Hara creek is affected by agricultural irrigation. No T&E listed, proposed or candidate species are known to occupy this area. There is some potential for grizzly bears and wolves to move through this area, but the proximity of Highway 120 limits use of this area as habitat.

ENVIRONMENTAL EFFECTS OCCURRING IN EXISTING ENVIRONMENT
Flora – Existing grazing may have some effect on vegetation, but the effects are unknown. The highway and oil and gas development have reduced available vegetation
Fauna - Reduced flora reduces forage for resident herbivores. Between five and ten elk & deer are killed by highway traffic. Mortality from gas field activities is estimated to be quite low. Sage grouse and ungulates continue to use the project area.

Effects - Oil and gas development is generally considered hostile to wildlife; however, some wildlife appears to habituate to production activities. This is the case here where elk have moved into the Heart Mountain area in spite of highway improvement and some recent drilling in an existing gas field. Since 1999, about five wells have been drilled. This project removes up to 11.4 acres of vegetation and eliminates about 2.3 AUMs during drilling. After grading and reseeding for production are completed, that disturbance would be reduced.

Construction (including installation of temporary water tanks and a 2" diameter surface line) and drilling could be disturbing to ungulates and birds, but the activity would occur between June 30 and November 15. Most wintering ungulates would not be in the project area although some resident wildlife would. Resident ungulates would be temporarily displaced during drilling and road construction activities but have many areas of suitable summer habitat in the surrounding area. This disturbance associated with construction and drilling would occur when forage is abundant and animals are not stressed by severe weather. Nesting sage grouse would not be affected because broods have matured and are quite mobile by June 30th of most years. There are no known raptor nesting sites within 2 miles of the well pad site and access road.

Installation of the surface product line would be completed in a few days; burial if and when it is determined the well would produce in paying quantities and the exact nature of well production have been determined, could last a week or more and work would occur during normal working hours. This activity is not subject to federal regulation and could occur after November 15 so there could be some effects on big game. The same is true of construction of the off-site production facilities. It's likely that construction and installation activities will occur in 2007. Because those facilities on lease are subject to the timing limitation stipulation they could only be installed between August 1 and November 15. After the project area is reclaimed for production, normal operations would include a weekly visit between 7 AM and 5PM at the well site and more frequent visits to the off site production facilities located about one quarter mile from Highway 120.

Considered against the backdrop of traffic on the highway, more frequent activity at the off-site facilities could have little effect on wildlife, particularly ungulates. That same level of activity at the well pad could have adverse effects, especially during sage grouse nesting and strutting or during the winter months when elk and mule deer need the area for winter survival; however, human activity at the well head and along the access road will be limited to less than one trip per day – probably a few per week. Finally, except for a quarter mile of new construction, this is not a new road providing unprecedented access to a new area. It is an improvement to an existing road, and because the surface is private, the problem of serious impacts from recreationists on a new road is completely avoided.

EFFECTS ON FLORA & FAUNA	
Not Approving The Permit	Approving The Permit
Flora –. No additional effects.	Flora – Up to 11.4 acres of vegetation lost. This accounts for about 2.3 lost AUMs.; by itself the well and even the drilling program constitute a small impact to range use. Seeding prevents long-term watershed impairment.

EFFECTS ON FLORA & FAUNA	
Not Approving The Permit	Approving The Permit
Fauna - No additional effects..	Fauna - Noise from drilling could cause some movement of animals away from the area. This well will affect habitat values for wildlife during drilling, but this is past the critical time for nesting sage grouse and well before November 15, the date when crucial winter range becomes important for deer and elk. Well completion and the installation of surface production equipment will be less disturbing and because it is limited to one small area, ungulates have other options. If the well became productive, most human use would occur between 7AM and 4PM would usually be less than one hour per weekday.

RECREATION

Affected Environment – The hunting and outfitting that occurs in this area is subject to permission from the landowner. The project lies in a Class II visual resource management (VRM) area, in which contrasts may be seen but should not attract attention, and changes should not be evident in the characteristic landscape. The high cut slopes and seeded fill slopes of Highway 120 are close to the proposed off-site production facilities and the first part of the access road to the well, but most of the project area is far removed from this characteristic landscape and is out of view for motorists on Highway 120. There is a reclaimed well pad that is about one quarter mile to the west of the Bison Ranch #21-1 pad. In fact, all but one quarter mile of the access road uses the road that was built for this well.

The primary visual resource concern is what will be seen by the land owner. Jim and Ginger Dager own the surface on which the federal action will occur. They have plans to build a residence on their property. The visual contrasts discussed in this section are what they will directly experience in the use and enjoyment of their property. The property and the project area consist of deeply incised valleys that are flanked by steep, angular, grassed ridges on the west slope of Heart Mountain. This is very important for scenic mitigation: highway cut slopes blend more easily into a landscape with angular ridges than they do where ridges are rolling or sinuous (see Highway 120 in Figure 1). (The same would be true of cut and fill slopes related to a well pad.) Swales or natural seeps support woody thickets of wild rose, cherry and other deciduous shrubs. Conifers begin to appear at higher elevations and thicken into dense forests near the top of Heart Mountain. Anyone ascending the west slope of Heart Mountain is drawn to the dramatic escarpments at the very top. At higher elevations there is a view to the west of some high Absaroka Mountain peaks. This scenic ambiance

would be seen with the features described in the Proposed Action as part of the visual experience. Successful mitigation efforts would allow this landscape to retain its current visual quality.

Another important view would be that which is seen from the very top of Heart Mountain, which is owned by the Nature Conservancy and the Trail Creek Ranch and is about one and one half miles from the pad. The views described in the paragraph above would be even more encompassing from the summit of Heart Mountain. Much of the project area would be visible from the extreme northeast corner of Section 15, T54N, R102W, about a mile and a half from the project area. Again, the mitigation efforts, if successful could allow these views to retain their integrity.

ENVIRONMENTAL EFFECTS OCCURRING IN EXISTING ENVIRONMENT
Existing trails may enhance access for hunters where they secure landowner permission. The visual landscape is almost completely undisturbed, but an existing pad and access road are evident as are several rustic buildings, which give the landscape a traditional 'western' look. To the north highways, driveways, residences, petroleum facilities, etc. are all visible within a mile of the project area.

Effects – Because the lands are private and major activities occur mostly in summer, it is expected that drilling and developmental activities will not have a substantial effect on hunting. Visual effects have two distinct timeframes: the construction, drilling and development phases when more activity occurs with huge equipment and cut and fill slopes are devoid of any vegetation; and the second, relatively stable period of production when less obtrusive equipment is used and is painted to blend into the landscape, slopes are reshaped to screen equipment and match surrounding land features, and a variety of grasses, forbs shrubs and trees mute remaining visual effects.

During construction, drilling, and all other activities, the well site will not have the benefits of interim reclamation. The cut and fill slopes would not be seeded or planted with conifers. Because of this, the project will attract attention and fill slopes and spoil and topsoil piles would be visible. The pad area is visible from the very top of Heart Mountain. During drilling and for the period during testing, installation of equipment the drill rig would be gone but the cut and fill slopes would remain, and temporary facilities including a surface line would remain. After all planned facilities would be installed (assuming the well pays out) and the slopes are graded to their finished contours, visual contrasts should be reduced considerably; slopes would still be bare but facilities would be camouflaged or concealed. After a few years vegetation would be established - grasses and shrubs growing within 15 feet of the well head.

The off site facility is expected to be more visible from Highway 120 than any other part of the project, though the exact location has not been determined. However after the topsoil piles are removed and the fill slopes graded for production, top soil spread, and vegetation is established, the site will not be very evident during the short time it is visible.

EFFECTS ON RECREATION	
Not Approving The Permit	Approving The Permit With Excepted Stipulations
No additional effects.	Pad construction causes slight additional visual effect. Noise from the proposed operations slightly increase impacts to recreation uses. Pad construction, drilling and all other activities occurring before completion of interim reclamation exceed Class II VRM standards. This is temporary – the project meets standards after seeding planting and other necessary measures are completed.

CULTURAL PALEONTOLOGICAL & NATIVE RESOURCES

Affected Environment – A Class III cultural resource inventory was conducted and nothing was located in the project area. The Crow Tribe was contacted by letter and phone as part of Native American Consultation. They expressed interest but declined to visit the project because of insufficient funds.

ENVIRONMENTAL EFFECTS OCCURRING IN EXISTING ENVIRONMENT
Some risk of damage to cultural resources from accidental occurrences or spill.

Effects - Adverse affects to cultural resources usually occur when permitted operations damage resources undiscovered in the Class III inventory.

EFFECTS ON CULTURAL, PALEONTOLOGICAL & NATIVE RESOURCES	
Not Approving The Permit	Approving The Permit With Excepted Stipulations
Some risk of damage to cultural resources from accidental occurrences or spill.	Effects to Cultural and Native American resources and concerns addressed by application of NHPA, AIRFA, NAGPRA, ARPA legislative and regulatory requirements. Slight risk of inadvertent damage to cultural resources.

CUMULATIVE EFFECTS

This project adds to the complex of human activities that includes Highways 120 and 296, a few farmsteads and about ten gas wells. There is a continuing trend of increasing development, but in this area it has been not been as intense as it is around Cody or Clark. The placement and design of this pad so it can reach the two wells limits future disturbance. The 11.4 acres of disturbance is total maximum disturbance anticipated. When the well is under production most of the working surface of the road and pad will be reseeded. Existing petroleum development, located two to six miles northwest of the project area, probably accounts for up to twenty five acres; these wells, after interim grading has been completed and vegetation is established, could add another three acres of bare surface or about ten percent. The paved areas of Highway 120 and 296 also add substantially to the total number of disturbed or altered acres found within five miles of the project area. In terms of total impact the roads are currently create more disturbed areas than petroleum well pad development. The roads occupy more surface area; they present greater barriers to migrating wildlife and they are certainly the most evident features in the landscape. The operator anticipate additional wells may be drilled: these actions would be subject to additional NEPA analysis, which could include an analysis of full field development.

CONSULTATION AND COORDINATION

Consultation was limited to the Wyoming Game and Fish Department, and the Wyoming State Historic Preservation Officer, and Jim and Ginger Dager, who also met with BLM representatives at the project and at the Cody BLM office. Mr. Dager also sent BLM a letter, dated January 31, 2006 outlining his concerns that BLM's Best Management Practices (BMPs) be applied to this project (See Exhibit A). The Nature Conservancy (TNC) also sent a letter, dated March 20, 2006 to the Cody Field Office, with a similar concern that BMPs be applied to this project. No effects to T&E species, migratory birds or Bald and Golden Eagles are expected from this project and alternatives so the U.S. Fish and Wildlife Service was not consulted for this action.