

**United States Department of the Interior  
Bureau of Land Management  
Wells Field Office  
Elko, Nevada**

**FINDING OF NO SIGNIFICANT IMPACT**

**Ruby Valley Federal 1-11 Oil Well  
3100 (NVN-83853); BLM-NV-010-2009-002-EA**

Charter Oak Production Company, LLC, holds the oil and gas lease (NVN-83853) for public lands administered by the Wells Field Office in Elko County, Nevada. The lease area is within a wildcat oil and gas area in the Ruby Valley, Murphy's Well area. They submitted an application for a permit to drill (APD) a well in the leased parcel (NV-010-APD-2008-002). The proposal has two phases; an exploratory phase and, if oil is found, a post-drilling production phase. To access the well site from existing roads, about 1,000 feet of new road would be constructed.

Based on my review of the environmental assessment (EA) for the proposed action (EA No. BLM-NV-010-2009/002), I have determined that the proposed action will not significantly affect the quality of the human environment. Therefore, preparation of an environmental impact statement is not required prior to BLM approval of the project. The EA is incorporated by reference, and available upon request to the Wells Field Office. This finding is conditioned upon implementation of the mitigation and monitoring requirements identified in the EA, and my consideration of the Council on Environmental Quality criteria for significance (40 CFR 1508.27) with regard to the context and the intensity of impacts, as discussed in the EA (see attachment).

Context

The project area is in Ruby Valley, about 44 miles south of the city of Wells, Nevada, on old lake sediments, with elevations around 6000 feet. Annual precipitation is about 4 inches. The project would use existing roads, water and material sources, and disturb 1.5-2 acres, including construction of a new access road to the well site and the removal of material from the gravel pit. This area is characterized as a sparsely populated agricultural area, and the dominant use of public lands is for livestock grazing in the Big Meadows Allotment. The closest ranch buildings are about 7.5 miles from the project. Big sagebrush, rubber rabbitbrush, and crested wheatgrass are the dominant plants.

Intensity

1) *Impacts that may be both beneficial and adverse.*

The exploration for and, if successful, domestic production of oil and/or gas resources on leased public lands would benefit the security and welfare of the American citizens at risk from the disruption of energy supplies and drastically increased prices, and thus help meet the intent of the Energy Policy Act of 2005. Localized disturbance of less than 2

acres from construction of about 1,000 feet of a new access road and development of the well pad is anticipated. Potential adverse impacts on natural resources such as wetland and riparian areas, big game, and special status fish and wildlife species as discussed in the EA would be temporary and reclaimed, and minimized by implementation of the best management practices and mitigation measures identified in the EA.

2) *The degree to which the proposed action affects public health or safety.*

Potential impacts to public health and safety, including safety of workers, would be avoided by adherence to standard practices required for well drilling activities. Any oil or hazardous material that is discharged to the reserve pit during an emergency situation would be removed and disposed of in compliance with Notice To Lessees (NTL-2B) in a certified injection well or other certified disposal site.

3) *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

A survey of the areas to be disturbed by construction of an access road and development of the well pad did not identify any cultural resource sites. No park lands, special recreation areas, wild and scenic rivers, wilderness or wilderness study areas, or other area of critical environmental concern would be affected by the proposed action. No wetland and riparian areas would be impacted. Construction activities are not planned to occur during the avian nesting season, but it is a standard operating procedure to require surveys for active nests if disturbance is rescheduled during such periods.

4) *The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

The effects of well construction are not highly controversial. No conflicts with cultural or natural resources and uses are noted.

5) *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*

The effects of well construction are well known, and none of the effects on any resource evaluated in the EA are considered uncertain or involve unique or unknown risks. All drilling and construction methods proposed to be employed are accepted standard and best management practices. The application includes a plan for reclaiming areas disturbed, the success of which would be monitored by BLM.

6) *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

Surface use plans are analyzed and approved on a site and project-specific basis. This is the first exploration well proposed in the lease, and past wells in the area did not locate oil or gas for production. Future development of any additional wells in the leased parcel would be considered when proposed.

7) *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.*

Past, present and reasonably foreseeable actions in the area are mostly related to management of the area for livestock grazing. No producing oil and/or gas wells have been located in the Ruby Valley area. The impacts of the proposed action when considered with continued grazing and other land disturbing activities would not result in any cumulatively significant impacts on any resource at the local or watershed scale.

8) *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss or destruction of significant scientific, cultural, or historic resources.*

A survey of the proposed well site and access road was completed and did not identify any properties listed, or eligible for listing, in the National Register of Historic Places (NRHP). BLM policy provides for inadvertent discovery and mitigation procedures to be included as a condition of approving an APD. The proposed action will not cause the loss or destruction of any significant scientific, cultural or historical resources.

9) *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the ESA of 1973.*

BLM concludes in the EA that no adverse impacts to any species listed under the Endangered Species Act would result from the proposed action. No critical habitat has been designated.

10) *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

Inclusion of standardized language concerning BLM's responsibilities for cultural resources and Native American consultation, special status species and migratory birds, as a condition of approving the APD will ensure no Federal requirement for the protection of these resources is violated. The operator is required to obtain any Federal, State or local permits required for the protection of wildlife, air and water resources.

/s/ Bryan Hockett, Acting for  
**Bryan K. Fuell, Manager**  
**Wells Field Office**

October 17, 2008  
**Date**

## **Ruby Valley Federal 1-11 Oil Well Mitigation and Monitoring Recommendations**

Charter Oak Production Company holds the oil and gas lease (NVN-83853), and has submitted an application for a permit to drill (NV-010-APD-2008-002) the Ruby Valley Federal 1-11 well. The area has been leased subject to standard lease terms, and with the special stipulation for sage grouse. Section 6 of the standard federal oil and gas lease (Form 3100-11) provides the BLM with authority to require reasonable measures to minimize adverse impacts to cultural and natural resources, consistent with lease rights granted. As a result of an environmental assessment (BLM-NV-010-2009-002), the BLM, Wells Field Office, recommends the following mitigation and monitoring measures be required as a condition of approving the APD.

### **Cultural Resources and Tribal Consultation**

Although no sites eligible for the National Register of Historic Places were identified as a result of inventory and site visits, the approval of the APD should provide notice of the following requirements for all operations of this project (OG-010-05-03):

If historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E. O. 13007 [Sacred Sites], or other statutes and executive orders, the BLM will not approve any ground disturbing activities that may affect any such properties or resource until it completes its obligation under applicable requirements of NHPA and other authorities. The BLM may require modifications to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.

During the project activities, if any cultural properties, items, or artifacts (stone tools, projectile points, etc...) not previously recorded by BLM are encountered, it must be stressed to those involved in Oil Well Exploration that such items are not to be collected and that the BLM, Elko Field Office must be notified of the discovery. Cultural and archaeological resources are protected under the Archaeological Resources Protection Act and the Federal Land Management Policy Act. Also, though the possibility of disturbing Native American gravesites within the project area is extremely low, inadvertent discovery procedures must be noted. Under the Native American Graves Protection and Repatriation Act, section (3)(d)(1), it states that the discovering individual must notify the land manager in writing of such a discovery. If the discovery occurs in connection with an authorized use, the activity, which caused the discovery, is to cease and the materials are to be protected until the land manager can respond to the situation.

### **Water Resources, Wetlands and Riparian Areas**

The Energy Policy Act of 2005 amended sections of the Clean Water Act to exempt oil and gas exploration and development activities from requirements for a National Pollution Discharge Elimination System (NPDES) permit. Implementation of Best Management Practices (BMPs) would minimize soil lost from the site. Installation of

sediment filters such as straw waddles at key locations below the drill pad would prevent sediment from entering the surface water. Waddles placed across areas where water is likely to concentrate including trails, roads, disturbed areas and headwaters of gully channels will reduce flow velocities and opportunities for sediment transport to wetland and riparian areas.

### **Wildlife**

Sage Grouse - No leks occur within 0.5 miles of the proposed well (OG-010-05-07). The area is not in crucial winter habitat for sage grouse (OG-010-05-09). However, brood-rearing may occur in habitat near the access road or well pad site. Approval of the surface use plan, including construction of the access road and drilling of the well, should be conditioned upon the following:

- Seasonal restrictions from disturbance in sage grouse brood-rearing areas apply within 0.5 miles or other appropriate distance based on site-specific conditions from 5/15 to 8/15, inclusive. This restriction does not apply to operating facilities. (OG-010-05-08)

Raptor Nests – Active raptor nesting sites are subject to seasonal protection from disturbance to avoid displacement and mortality of raptor young (OG-010-05-01). Restrictions apply up to a 0.5 mile radius around the active nesting sites of the following species during the period described below.

- a) Golden Eagles and Great Horned Owls during the period 1/1-6/30.
- b) Long-eared Owls during the period 2/1-5/15.
- c) Prairie Falcons during the period 3/1-6/30.
- d) Ferruginous Hawks, Northern Harriers and Barn Owls during the period 3/1-7/31.
- e) Goshawk and Sharp-shinned Hawks during the period 3/15-7/15.
- f) Cooper’s Hawks, Kestrels, and Burrowing Owls during the period 4/1-6/30.
- g) Red-tailed and Swainson’s Hawk during the period 4/1-7/15.
- h) Short-eared Owls during the period 2/1-6/15.

Disturbance is planned outside of the nesting season. If construction of the access road or well site is [re]scheduled during the raptor nesting period (generally January 1 through July 31), then the operator should employ a qualified biologist to inventory the areas prior to disturbance for active nests. Any nesting activity should be reported to the BLM for a determination of appropriate mitigation measures.

Other Species of Concern -- In addition to nesting raptors, the above biological survey should report any observations of other wildlife species of concern, including sage grouse, pygmy rabbits and migratory birds listed in the EA. The nesting season for migratory birds is generally April 1 – July 31. Any take of a migratory bird must be avoided.

### **Vegetation/Noxious Weeds**

Blading during road construction operations could spread noxious weeds into the disturbed areas. Washing the construction equipment prior to road construction would reduce the chances of spreading noxious weeds.

## **Reclamation**

The BLM recommended reclamation seed (pure live seed) mixture is listed below.

**Table A. BLM Recommended Reclamation Seed Mix**

<u>Species</u>	<u>Pounds per acre</u>
Indian Rice Grass	5
Bottlebrush Squirreltail	1
Thickspike Wheatgrass	2
Yarrow	2
Fourwing Saltbush	1
Low Sage	3

The approved mix should be sown during the fall or early winter season, immediately following the seedbed preparation. Following seeding, a fence meeting BLM specifications should be constructed around the drill pad area. This fence should remain in place for a period of three growing seasons to promote successful revegetation of the disturbed area. The fence would be removed following BLM determination that the reclamation is successful.

## **Monitoring**

At least three inspections would be done by BLM personnel to monitor the operations. The first would be done during the pre-drill meeting before any disturbance occurs, one inspection would be done while the drill rig is on location and one inspection following reclamation of the site.

## ENVIRONMENTAL ASSESSMENT

# Ruby Valley Federal 1-11 Oil Well Charter Oak Production Co., LLC



Staking of Proposed Drill Site

**October 2008**

**3100 (NVN-83853) + 1792 (BLM-NV-010-2009-002-EA)**

Elko District, Wells Field Office, Nevada



It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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**Cover Photo by Tom Schmidt, BLM Geologist, Elko NV**



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## **Attachments**

- 1 -- Well Site Photos
- 2 -- Map A – Vicinity Map
- 3 -- Map B – Project Map (APD, Exhibit 4)
- 4 -- Drill Site Layout (APD, Exhibit 8)

## 1 INTRODUCTION

Charter Oak Production Company holds the oil and gas lease (NVN-83853) for public lands within a wildcat oil and gas area in the Ruby Valley in Elko County, Nevada (see **Map A**). They submitted an application for a permit to drill (APD; NV-010-2008-002) a well in the leased parcel. The proposal has two phases; an exploratory phase and, if oil and gas is found, a post-drilling production phase. The surface use plan of the application is incorporated by reference.

The BLM, Elko District, Wells Field Office, has prepared this environmental assessment (EA) to comply with the National Environmental Policy Act of 1969 (NEPA). This analysis tiers to the environmental impact statement (EIS) for the 1983 Wells Resource Management Plan (BLM, 1983), and incorporates by reference pertinent information from a district-wide EA for oil and gas leasing completed in September 2005 (BLM/EK/PL-2005/030). These NEPA documents and the APD are available upon request at the BLM Elko District Office.

### 1.1. PURPOSE AND NEED

The proposed action is to explore for, and if successful develop, an oil well under Federal lease number NVN-83853. Oil and gas is used to manufacture a wide variety of valuable products including fertilizer, plastic food containers, furniture, floor coverings, construction materials, pharmaceuticals, pesticides, paints, lubricating oil, fuel, paving asphalts and polymers of various kinds. Action is needed to provide for timely exploration and development of energy resources on public lands, thus reducing U.S. dependence on imported supplies. The exploration for and domestic production of oil and/or gas resources on public lands would benefit the security and welfare of the American citizens at risk from the disruption of energy supplies and drastically increased prices, and thus help meet the intent of Executive Order 133212 dated May 18, 2001, and the Energy Policy Act of 2005.

This action would facilitate energy development where appropriate. Leasing is authorized under Mineral Leasing Act of 1920, as amended and modified by subsequent legislation, and regulations found at 43 CFR part 3100. BLM authority for leasing public mineral estate for the development of energy resources, including oil and gas, is listed in 43 CFR 3160. Oil and gas leasing activities are recognized as an acceptable use of the public lands under the Federal Land Policy and Management Act of 1976 (FLPMA). BLM approval of leasing activities is subject to conditions to prevent undue or unnecessary degradation of public lands.

### 1.2 LAND USE PLAN CONFORMANCE

The proposed action is in conformance with the Wells Resource Management Plan (RMP), as approved June 23, 1983. The Record of Decision for the Wells RMP, page 25, provides that, *“The public lands will be managed in a manner which recognizes the Nation’s needs for domestic sources of minerals.”* As a standard operating procedure (SOP), the RMP prescribes that, *“Time-of-day and/or time-of-year restrictions will be placed on construction activities associated with leasable and saleable mineral explorations and/or development that are in the immediate vicinity or would cross crucial sage grouse, crucial deer and pronghorn antelope winter habitats, antelope kidding areas, or raptor nesting areas.”*

## 2 ALTERNATIVES

### 2.1 PROPOSED ACTION

Charter Oak Production Company proposes to drill an exploration well on public land within a wild cat area shown in the vicinity map from the APD (see Attachment, **Map A**). The surface use plan for this well (Ruby Valley Fed. 1-11) has two phases; a drilling phase and post drilling production phase. Drilling would be done in order to determine if oil and/or gas resources do indeed exist at the site. If economic oil and/or gas resources are not encountered, the site would be reclaimed.

In the event that economic quantities of oil are encountered at the location, the well and production facilities would be constructed. This would include a well head with valves and choke, separator, vertical emulsion treater, fiberglass salt water tanks, welded steel oil tanks, natural gas meter along with associated pipe and fittings. If successful oil would be transported by tanker trucks over the new and existing access road to State Highway 93, and then other highways to the refineries in Railroad Valley Nevada.

The planned access road will be approximately 1000 feet in length, as shown on **Map B**. The location of the exploration well and on-lease road are legally described as:

T. 30 N., R. 60 E.  
SW1/4 NE1/4 SW1/4, Section 11  
Mount Diablo Meridian

Operations were proposed to begin by early October of 2008. Pad and sump construction, followed by drilling, would commence as soon after approval as equipment is available and continue for approximately 30 to 60 days. If oil is found, production could last between one month to 50 years depending upon the resource available. Following depletion of the oil and gas resources, the site would be reclaimed.

Approximately 14 employees would be required for drilling operations. In the event production is established, four other workers would be needed for construction and pumping operations. None of these employees would be new to the area because they are already employed on drill rigs currently operating in northeastern Nevada.

A detailed description of the components of the Proposed Action from the APD is as follows:

#### 2.1.2 Road Access

As shown on **Map B**, access to the site would leave the CCC road and follow about 2.75 miles of an existing gravel road. The project would include the construction of 1000 feet of new road to the well site. Total disturbance for the access road would be about 0.46 acres. The portion of the new road in T.30N, R.60E, SW 1/4 Section 11 would be in the leased parcel (on-lease). The road would be constructed to a maximum width of 20 feet with a 14-foot wide running surface, crowned, ditched and graveled.

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The new and existing access road would be constructed to withstand the anticipated loads. Water control structures would be constructed as necessary. Approximately 3,000 cubic yards of gravel would be obtained from the BLM pit located southwest of the project along the CCC road, in T.29N, R.60E, section 3.

## 2.1.2 Drill Pad

The drill pad would be constructed with the layout shown in the APD (see Attachment). About 1.25 acres would be disturbed. The drill pad would cover an area 175' by 250' and would include a 100' by 100' reserve pit within the pad. All available topsoil would be stripped from the pad area and stockpiled for use upon final reclamation. A suitable liner, such as bentonite, would be installed in the reserve pit to prevent contamination of the groundwater. Drilling and construction operations would continue for approximately 30 to 60 days.

All drilling and support equipment would be contained within the drill pad. This equipment would include a two bedroom rig house (trailer) to house the workers and provide working areas. The drill rig would be located next to the reserve pit and would be surrounded by support equipment including a fuel tank, boiler, light plant, parts shed, mud tanks, water tank, driller shack and pipe tubs or rack.

Pressure control equipment would include a casing head with a minimum working pressure of 3,000 psi welded on top of the surface casing. Eleven-inch ram blowout preventers would be mounted on top of the casing head along with a Reagan type annular blow out preventer mounted on top of the double ram blow out preventers. In addition a rotating head will be installed with rotating head rubber readily available if needed. All well control equipment will have a minimum pressure rating of 3,000 psi.

In the event pressure is encountered while drilling, fluid can be diverted via a high pressure line from the casing head to a choke manifold. A choke manifold will consist of multiple valves and adjustable chokes to allow free flow to be controlled at all times.

All well control equipment will be tested to the lesser of maximum working pressure of the system if a test plug is utilized, or to a pressure equal to 75% of rated burst pressure of the casing string. An initial test would be conducted prior to drilling new formation rock below the casing string by a certified tester.

Three sides of the reserve pit would be fenced during drilling operations. Prior to rig release, the fourth side would be fenced to prevent livestock and wildlife from becoming entrapped.

Areas of the drill pad not required for production would be reclaimed. The total area needed for production would not be greater than the drilling pad of 250 ft. long and 175 ft. wide. If oil production is established, the production rate may be a few hundred to two thousand barrels of oil per day. This would necessitate up to eight tractor-trailer tanker loads per day to transport the oil to the refinery Railroad Valley, Nevada. If natural gas is encountered, the well would likely

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be shut-in as there are no natural gas pipelines within 50 miles which could be used to transport the gas.

## **2.1.3 Water Supply**

Water for operations and drilling would be supplied from the well located 2000 feet southeast of the project, on the abandoned Sohio Ruby Valley #1 drill pad. Water will be transferred via temporary polyethylene lines from water well to the location. These lines will run immediately adjacent to the access road within the 30-foot right-of-way. Supplemental water if required will be hauled by a licensed trucking company. The operator would obtain a temporary permit from the Nevada State Engineer if necessary.

## **2.1.4 Construction Materials**

All construction material for the proposed location and access road will be of native borrow and soil accumulated during the construction of the location. The existing BLM borrow area located southwest of the project T.29N, R.60E, section 3, on the CCC road would be a source of surfacing material.

## **2.1.5 Waste Material and Disposal**

A conventional reserve pit system is proposed in drilling of the well. Materials to be stored in the reserve pit are restricted to drill cuttings, excess drilling mud, and fresh water. An impermeable liner will be installed in the reserve pit to prevent seepage of liquid contents into the soil or subsurface aquifer.

Prior to any hydrocarbon testing, test tanks would be on location. Produced water will neither be allowed to escape onto the surface, nor stored in the reserve pit. All produced water will be stored in tanks to minimize the environmental impact. Any oil or hazardous material that is discharged to the reserve pit during an emergency situation would be removed and disposed of in a certified injection well or other certified disposal site.

The plan proposes that trash and other solid waste will be contained in an appropriate receptacle on location. The receptacle will be constructed and positioned to prevent the contents from being carried off location by wind or wildlife. Burning of trash and debris will not be allowed. All waste would be disposed of appropriately at an approved disposal site. Drip pans and/or absorbent pads will be used to prevent the escape of oil or lubricants. Used motor oil will be recovered and recycled by the responsible party.

A portable toilet will be located on site for human waste during all construction, drilling and completion operations. Disposal of the waste will be accomplished off site by hauling the contents to an approved disposal site.

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## 2.1.6 Workforce

The temporary drilling workforce would consist of 14 individuals including the drilling engineer, mud engineer, tool pusher, driller, geologist, two mud loggers, and four helpers. The drilling workforce would be on site for a period of 15 to 30 days.

If the well is completed, a construction crew of three would be on site for a period of 45 to 60 days. If production is established, a part-time pumper would oversee day to day operations for the life of the well.

## 2.1.7 Reclamation

In the event that the well is not successful and production cannot be established, backfilling, leveling and re-contouring would be done after the reserve pit has dried. The topsoil stockpile would then be spread over the disturbed area to a uniform thickness. The pad area along with the access road would be ripped on the contour at least one and on-half feet deep with rips spaced no more than one and one-half feet apart. Rehabilitation activities would be restricted to the pad and roadbed of the access route so as to prevent damage to cultural resources. Revegetation on the disturbed areas would be accomplished by broadcast seeding and covering the following pure live seed (PLS) mixture, as recommended and approved by BLM. A portion of the topsoil stockpile would be used to cover the seed approximately 1/4 to 3/8 of an inch in depth.

**Table A. BLM Recommended Reclamation Seed Mix**

<u>Species</u>	<u>Pounds per acre</u>
Indian Rice Grass	5
Bottlebrush Squirreltail	1
Thickspike Wheatgrass	2
Yarrow	2
Fourwing Saltbush	1
Low Sage	3

If production is established the pump jack would be painted shale green (Munsell Soil Color No. 5Y 4/2) and all remaining areas of the drill pad not needed for production facilities would be reshaped to the contour of the natural surrounding terrain. The remaining topsoil would be spread over the reshaped area to a uniform thickness and reclaimed in the same manner as the reserve pit.

After the oil is depleted, the production facilities would be removed and the remaining disturbed area would be reclaimed in the same manner as described above. The existing access road would be maintained in as good or better condition as it was before operations started.

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## **2.1.8 Monitoring**

At least three inspections would be done by BLM personnel to monitor the operations. The first would be done during the pre-drill meeting before any disturbance occurs, one inspection would be done while the drill rig is on location and one inspection following reclamation of the site.

## **2.2 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM ANALYSIS**

### **2.2.1 No Action Alternative**

Under this alternative, drilling would not be allowed at the location specified in the APD. The impacts of the proposed well, as analyzed in the next chapter of this EA, would not occur. If the operator still wanted to explore the site, he would be required to submit a new application, which could include directionally drilling from some alternate location. Analysis of the proposed action did not identify any adverse impacts that could not be mitigated. Directional drilling adds additional costs to drilling which are double that of conventional drilling and as such, may make the entire operation uneconomic.

### **2.2.2 Alternative Gravel Sources**

Alternate sources of gravel were considered. Distance, quality of material, location in relation to sage grouse leks and cultural resource sites were the factors used to eliminate the alternate sources.



## 3 AFFECTED ENVIRONMENT/EFFECTS

### 3.1 AFFECTED ENVIRONMENT

The project area is in Ruby Valley, about 44 miles south of the city of Wells, Nevada, on old lake sediments, with elevations around 6000 feet. Annual precipitation is about 4 inches. This area is characterized as a sparsely populated agricultural area, and the dominant use of public lands is for livestock grazing of the Big Meadows allotment. The closest ranch buildings or corrals are located about 7.5 miles from the project. Big sagebrush, rubber rabbitbrush, and crested wheatgrass are the dominant plants.

Since 1970, there have been 3 exploration oil/gas wells drilled within Ruby Valley. The nearest well was drilled by Sohio Oil Company in 1980. All three wells were dry.

#### Critical Elements Not Affected

The following critical elements of the human environment are not present or are not affected by the proposed action as described in this EA.

#### **Areas of Critical Environmental Concern (ACEC)**

##### **Cultural Resources**

##### **Floodplains**

##### **Prime or Unique Farmlands**

##### **Hazardous/Solid Wastes**

##### **Wild and Scenic Rivers**

##### **Wilderness**

The project is not within any unique geographic area, including any ACEC, wilderness or wilderness study area, wild or scenic river or crucial wildlife habitat. No construction in a floodplain is proposed. A Class III cultural resources inventory was completed for the proposed well pad, access road and material site (report BLM1-2683). Three cultural resources were recorded, one which is no longer in proximity to the project due to project modification and two that do not qualify for listing on the National Register of Historic Places. No eligible historic properties would be affected by the proposed action. The APD includes plans for management, containment and disposal of hazardous and solid wastes in accordance with federal and state permitting requirements.

### 3.2 EFFECTS OF THE PROPOSED ACTION

The proposed action would disturb 1.5-2 acres of sagebrush scrub vegetation, including construction of an access road to the well site the well pad and the removal of material from the gravel pit. Resources/uses that are present and may be affected by the proposed action are discussed in the following subsections. They include land use (grazing, mineral materials), air quality, Native American concerns, water quality, soils, wetlands/riparian areas, wildlife (including special status species), migratory birds, visual resources, and vegetation (including noxious weeds).

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## 3.2.1 Land Use

The proposed well site sits within the Big Meadows Allotment, and is a cattle allotment that has five pastures with a rotating grazing prescription from April 15, through October 23. The Big Meadows Allotment consists of 14,559 acres that are public and 117 acres that are privately owned.

Past fluid minerals exploration activity in this area includes the Sohio Ruby Valley#1 well (abandoned) approximately 2,000 feet to the southeast.

Gravel to be used as surfacing material for the existing access road and construction of a new road to the well site would be transported from the existing pit near the junction of the CCC road and Highway 229 about 12 miles north of the project location would be a source of surfacing material.

### Effects

Combined disturbance from all oil well and access roads and gravel pit would be 1.5-2 acres.

The fence around the reserve pit during and after operations would preclude cattle from entering the reserve pit and would eliminate any danger to cattle. Road construction and drilling activities are not expected to conflict with grazing use of the area. The access road would include installation of a cattle guard, and construction of the well site is scheduled to occur outside of the grazing season.

There would be a loss of forage production over a 1.25 acre drill pad area until the site is reclaimed at the end of the project. Total disturbance from the new access road would be 0.3 acres.

The gravel pit disturbance would be within the existing gravel pit disturbed area.

## 3.2.2 Air Quality

The project area is located in an unclassified air basin. Air quality is generally good and thus considered to be in attainment of National Ambient Air Quality Standards. There are localized occurrences of fugitive dust by high winds, vehicular traffic, and construction, but these activities have not resulted in violation of air quality standards for any criteria pollutants. The nearest classified area is the Class I Jarbidge Wilderness Area.

### Effects

Project activities such as vehicular travel, blading and other ground disturbing activity could increase fugitive dust during construction and operation of the facility. Emissions would likely continue until the site is reclaimed. The Class I airshed would not be impacted by this construction.

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### 3.2.3 Native American Concerns

Various tribes and bands of the Western Shoshone have stated that federal projects and land actions can have widespread effects to their culture and religion as they consider the landscape as sacred and as a provider. The proposed well site is located within the traditional territory of the Western Shoshone.

Tribal participants of the Wells Band of Western Shoshone reviewed and are aware of the proposed action and location.

#### **Effects**

Based on informal discussion with tribal members and considering the description and location of the project, BLM has determined that this activity will not adversely affect any Native American religious site or religious practice or ceremony. The project is not within a known Traditional Cultural Property (such as the Tosawihi Quarries, etc.). Existing ethnographic information does not suggest that Native American traditional, spiritual and/or cultural activities took place or continue to take place at or near the project site. Project activities are not widespread and are limited to a relatively small area. Surface disturbance is limited to 2 acres. Access to any unknown (to BLM) tribal activity areas will remain open. Archaeological surveys have not revealed evidence of substantial past tribal use. The existence of a Tribal Traditional Cultural Property or traditional/spiritual/cultural activities is unlikely.

### 3.2.4 Water Quality (Surface/Ground)

Water resources in the project area include perennial and intermittent streams, and groundwater. There are no springs within 5 miles of the project area, There is a water well that was used for drilling the Sohio Ruby Valley #1 Oil Well about 2000 feet southeast of the project. Murphy Well (used for stock watering) is located 1 mile northeast of the project. Water draining from the project area would normally terminate in a playa 2.5 miles east of the project. Under extremely wet, high precipitation, weather conditions the playa overflows into Franklin Creek, 3.5 miles away from the project area.

#### **Effects**

In general, ground disturbing activities and facility operation lead to increased surface runoff, erosion, and possible discharge of sediment downstream. The result would be the possibility of increased sediment discharge into the Franklin Creek area during and following drill site operation.

The Energy Policy Act of 2005 amended Section 502 of the Clean Water Act by changing the definition of oil and gas exploration and production to encompass field activities, and Section 402(l)(2) of the CWA to exempt certain entities from a requirement to obtain National Pollution Discharge Elimination Permits (NPDES) storm water permits, except in very limited circumstances. The Environmental Protection Agency published a final rule in the Federal Register consistent with the amendments on June 12, 2006. Implementation of Best Management Practices would decrease impacts from the project. Installation of flow and sediment control structures would reduce sediment discharge. Other erosion control structures

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outside of the drill pad would be either maintained throughout the operation period or more permanent structures would be installed.

Best Management Practices would also reduce the likelihood of impacts to groundwater. Proper casing of the well would protect against mixing of aquifers or drawdown of aquifers. The reserve pit would be lined with bentonite to prevent contamination of the water table. If the well is successful and oil is produced, containment berms constructed around the storage tanks and oil loading areas would contain any spills.

## 3.2.5 Soils

Soils in the project area are identified as the Threese-Tosser Association. These soils formed on barrier beaches in alluvium derived from mixed rocks. They are very deep and have a gravelly loam surface texture. Hazard of erosion by wind is moderate and hazard of erosion by water is slight.

### Effects

About 1.5 to 2 acres would be disturbed under the proposed action. Consequences of the proposed activity would be the destruction of soil structure, mixing of soil horizons which could cause an increase or decrease in productivity after reclamation, and increased wind and water erosion hazard when vegetation is disturbed. The drill site would have accelerated runoff from the site due to the compacted soils. Implementation of Best Management Practices would minimize soil lost from the site. If the drill site were found unproductive, the site and the road would be reclaimed and erosion potential would decrease once vegetation is established.

## 3.2.6 Wetlands and Riparian Areas

Wetlands and riparian areas are present approximately 3 miles from the project site, around the Franklin River. The wetland area is characterized by interrupted flows and mixtures of grasses, forbs, sedges and rushes. Dominant species include baltic rush (*Juncus balticus*), Nebraska sedge (*Carex nebrascensis*), redtop (*Agrostis* spp.), cinquefoil (*Potentilla gracilis*), Kentucky bluegrass (*Poa pratensis*) and common dandelion (*Taraxacum officianale*). The drainage also supports scattered willow (*Salix* spp.).

### Effects

Although wetlands and riparian zones are not directly affected; potential exists for increased runoff and sediment delivery to Franklin River via intermittent drainages near the project site.

## 3.2.7 Terrestrial Wildlife

Sagebrush vegetation types provide habitat for approximately 100 bird species, 70 mammal species, and several reptile and amphibian species. Additional species are also found in the vicinity of Utah juniper woodlands habitat on a seasonal or yearlong basis. Many wildlife species that primarily inhabit riparian and meadow habitat on intermittent to perennial flows associated with these areas could also utilize the uplands on the drill site. Some of the species are in the "Migratory Birds by Habitat Type" list from the 1999 Nevada Partners in Flight Bird Conservation Plan.

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Mule deer, pronghorn antelope, sage grouse and raptors are emphasized in the 1985 Wells Resource Management Plan. Leasing activities are subject to seasonal restrictions to protect crucial deer winter range, and sage grouse strutting and nesting habitats (1985 Wells RMP Record of Decision, page 10). As a standard operating procedure, activities may also be limited to protect active nests of sensitive raptor species. Sensitive sage grouse and raptors are discussed in the next section on Special Status Species.

The area has no special designation as “crucial” habitat for mule deer although the area has been designated intermediate range. Some dispersed mule deer movements could occur on a yearlong basis and primarily during the summer period. These movements would occur from pockets of Utah juniper at lower elevations on public lands to private native hay meadows and riparian areas associated with local private ranches to the east.

The area has no special designation as “crucial” habitat for pronghorn. Some limited pronghorn use could occur as this species continues to expand its range into suitable habitat on the Elko District. The Nevada Department of Wildlife (NDOW) has identified the area as antelope yearlong range. Pronghorn have been observed by BLM and NDOW personnel.

## **Effects**

If a drilling is completed before January, then proposed action would not occur during most of the birthing/nesting period and young-rearing period for essentially all wildlife species. Most highly mobile wildlife species would likely avoid the drill site while operations are in progress. Less mobile mammalian and reptilian species would likely be temporarily displaced. In some instances, less mobile wildlife species that use burrows could be crushed by exploration equipment.

The destruction of nestlings would be avoided if the construction activities occur outside of the avian breeding season. Soil disturbance and compaction could destroy animal burrows, injure or kill less mobile animals, or trap animals in deep burrows. Activities associated with the proposed exploration may be sufficient to cause mammals, birds, and reptiles to avoid use of suitable habitat in the project area. Wildlife could tend to avoid active drill sites and roads and could move to adjacent habitat which would increase population in those areas. However, most habitat areas are likely at their respective carrying capacities for given species so animals could be lost from given populations. Depending on variables such as species, behavior, density, and habitat, adjacent populations may experience increased mortality, decreased reproductive rates, or other adverse responses. Species most likely to be affected are small mammals, reptiles, and passerine birds. If no oil production or temporary oil production occurs and reclamation efforts are successful, the reclaimed area would provide forage diversity and new foraging areas for both non-game and game species, and in the case of predatory species, their prey. Nesting habitat for birds that nest directly in shrub cover, or those that nest on the ground within shrub cover, could be impacted until re-establishment of shrub species occurs following reclamation. Pronghorn and mule deer could potentially benefit from the forage diversity and “food plot” setting that the reclaimed area would provide if reclamation efforts are successful. If the area is invaded by noxious or annual exotic vegetation, there could be a loss of perennial vegetation needed as a habitat component for many wildlife species. The disturbed area, including roads

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and well site would be reclaimed if drilling efforts are unsuccessful. If more permanent development occurs, there would be a long-term loss of habitat associated with the proposed action and possible avoidance of an undetermined area around the sites when workers are in the area or active use of equipment/machinery occurs. Some wildlife species would habituate to the structures and people that are active on site and continue to utilize habitat either on, or relatively close to, the site.

## 3.2.8 Special Status Species

BLM policy (516 DM 6840) defines special status species to include:

- Federally Threatened or Endangered Species: Any species that the U.S. Fish and Wildlife Service has listed as an endangered or threatened species under the Endangered Species Act throughout all or a significant portion of its range.
- Proposed Threatened or Endangered Species: Any species that the Fish and Wildlife Service has proposed for listing as a Federally endangered or threatened species under the Endangered Species Act.
- Candidate Species: Plant and animal taxa that are under consideration for possible listing as threatened or endangered under the Endangered Species Act.
- BLM Sensitive Species: Species 1) that are currently under status review by the U.S. Fish and Wildlife Service, 2) whose numbers are declining so rapidly that Federal listing may become necessary; 3) with typically small and widely dispersed populations; or 4) that inhabit ecological refugia or other specialized or unique habitats.
- State of Nevada Listed Species: State-protected animals that have been determined to meet BLM's Manual 6840 policy definition. Nevada protected animals are those species of animals occurring on BLM-managed lands in Nevada that are: (1) 'protected' under authority of Nevada Administrative Codes 501.100 – 503.104; (2) have been determined to meet BLM's policy definition of "listing by a State in a category implying potential endangerment or extinction," and (3) are not already included as a federally listed, proposed, or candidate species.

Actions that may affect species that are federally listed, or are proposed for listing, as threatened or endangered are subject to consultation or conference under Section 7 of the ESA. Nevada BLM policy is to provide State of Nevada Listed Species and Nevada BLM Sensitive Species with the same level of protection as is provided for candidate species in BLM Manual 6840.06C.

**Table B** lists the special status species that may occur in the vicinity of the proposed action. The list is based on input provided by NDOW and the U.S. Fish and Wildlife Service. The Nevada BLM-Sensitive Species are from Instruction Memorandum No. NV-2003-097 (July 29, 2003).

No special status plants or aquatic species are known to occur in the vicinity of the proposed action. No federally listed or proposed species, and no critical habitat, has been designated or proposed for designation. Numerous sensitive birds and mammals have the potential to be affected by the proposed action.



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**Table B. Special Status Species**

COMMON NAME	SCIENTIFIC NAME
Nevada BLM Sensitive Bird Species	
Greater Sage Grouse	
Greater Sage Grouse	<i>Centrocercus urophasianus</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Golden Eagle	<i>Aquila chrysaetos</i>
Prairie Falcon	<i>Falco mexicanus</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Ferruginous Hawk	<i>Buteo regalis</i>
Burrowing Owl	<i>Athene cunicularia</i>
Short-eared Owl	<i>Asio flammeus</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Black-rosy Finch	<i>Leucosticte atrata</i>
Vesper Sparrow	<i>Pooecetes gramineus</i>
Nevada BLM Sensitive Mammal Species	
Pygmy rabbit	<i>Brachylagus idahoensis</i>
Small-footed myotis	<i>Myotis ciliolabrum</i>
Long-eared myotis	<i>Myotis evotis</i>
Long-legged myotis	<i>Myotis volans</i>
Townsend's big-eared bat	<i>Plecotus townsendii</i>

## Sensitive Birds

The area provides habitat on a seasonal or yearlong basis for sage grouse, numerous raptors, and vesper sparrow, loggerhead shrike and black-rosy finch.

**Sage Grouse** - The area is within the Ruby Valley Sage Grouse Population Management Unit (PMU) in Nevada. This PMU is being considered under the Governor's Nevada Sage Grouse Conservation Strategy by the South Central Planning Group as part of sage grouse conservation planning efforts underway for the Elko District. Shrub cover is vital as a forage and cover component for sage grouse. Evaluation of habitat values and the possibilities to improve them are considered on crested wheatgrass seeding areas such as those on the allotment through this conservation effort.

The 1985 Wells RMP and the 2005 Leasing EA, Appendix A, identify the following limitations that may be placed on leasing activities to protect sage grouse:

- No surface occupancy is permitted within 0.5 miles, or other, lesser, appropriate distance based on site-specific conditions, of sage grouse leks. (OG-010-05-07)
- Seasonal restrictions from disturbance in sage grouse brood rearing areas apply within 0.5 miles or other appropriate distance based on site-specific conditions from 5/15 to 8/15, inclusive. This restriction does not apply to operating facilities. (OG-010-05-08)
- Seasonal restrictions from disturbance in sage grouse crucial winter habitat apply during the period November 1 to March 15. This restriction does not apply to operating facilities. (OG-010-05-09)

No sage grouse leks (breeding display sites) are known to occur within two to three miles of the proposed well site. The lek areas form "core areas" for associated nesting, brood-rearing and winter habitat areas. There could be sage grouse movements into the area from other areas relatively far away as individual or groups of grouse seek seasonal use areas. The well site

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potentially provides sage grouse habitat including winter, nesting and early (upland) brood habitat. Overall, similar sagebrush-grassland habitat occurs where potential use by sage grouse would be dispersed.

## Raptors

The entire Elko District may provide suitable nesting and foraging habitat for sensitive raptor species. The proposed drill site provides habitat characterized by the Black sagebrush vegetation type and a Loamy 8-10" Precipitation Zone ecological site. The area is within a fenced grazing allotment pasture that was plowed and seeded in the past (1950 -1960s era) with crested wheatgrass, an exotic perennial grass that is still the dominant herbaceous species on the site.

*Bald Eagle* – Delisting of the bald eagle as a threatened species became effective on August 8, 2007 (72 FR 37346). Bald eagles continue to be protected under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act. Bald eagles may use the area due to its proximity to winter foraging areas. Suitable habitat on uplands, irrigated lands and riparian areas is widely dispersed over tens of thousands of acres throughout the Elko District.

*Golden Eagle* – The area provides foraging habitat where prey species are primarily small mammals. Black-tailed jackrabbits provide the primary forage base

*Prairie Falcon* - The area provides foraging habitat for this species where prey species are primarily small mammals. Black-tailed jackrabbits provide a forage base as mentioned above for golden eagles.

*Swainson's Hawk* – Deciduous trees such as species of cottonwood on riparian corridors on private lands directly to the west about 5 miles may provide primary potential nesting habitat. It is unknown if any nesting use occurs and hawks have habituated to the presence of humans. Sagebrush/grass habitat on the area provide foraging habitat during the summer period, and during migration or seasonal movement events.

*Ferruginous Hawk* – In Nevada, this species prefers to nest in scattered juniper woodlands that are found on the edge of salt desert shrub or sagebrush vegetation types overlooking broad valleys. The nearest juniper stands are approximately 17 miles to the east on Spruce and Butte ranges. They could also nest on the top of "tall" sagebrush/other shrubs, rock outcrops, manmade structures or on deciduous trees such as quaking aspen or cottonwoods. Tall sagebrush/other shrubs could be defined as shrubs existing at about six feet in height or higher, out of the reach of potential ground-dwelling predators such as coyotes. Shrubs at this height did not occur on the proposed well site areas. Relative to the area, nesting could occur on juniper trees or on the ground. Otherwise, the allotment provides foraging habitat for ferruginous hawks associated with potential nest sites in juniper cover, and during migration or seasonal movement events. There is a potentially occupied nesting site atop Murphy Well water tank approximately 1 mile from the project site. Due to its proximity to a road and its situation above a cattle trough the additional disturbance due the proposed action will probably not have any increased detrimental effect on nesting success.



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*Burrowing Owl* - This species could occur on the area. Abandoned mammal burrows, such as those created by badgers, help to provide nesting habitat. This species tends to use disturbed or open sites with minimal vegetation for nesting and loafing, such as recent burned areas or areas near troughs, corrals, or livestock mineral licks where open terrain exists. This may be due to the lack of vegetation at these sites that allows increased visibility from the burrow entrance. Improving or maintaining range conditions and riparian areas would improve conditions for the prey species on which this owl depends. No burrowing owls or evidence of their nest sites were observed during site visits in August 2008.

*Short-Eared Owl* - The area provides nesting and foraging habitat for this ground-nesting species. This species has been observed foraging on a crested wheatgrass seeding with a sagebrush component on the Elko District. Nests with young have also been documented on mine sites under consideration for reclamation with no appreciable perennial vegetation. No short-eared owls or their nests were observed during site visits in August 2008.

Limitations that may be placed on leasing activities to protect nesting raptors are identified by the 2005 Leasing EA (Appendix A; Stipulation No. OG-010-05-02). The restrictions apply up to a 0.5 mile radius around the active nesting sites of the following species during the inclusive period described below.

- a) Golden Eagles and Great Horned Owls during the period 1/1-6/30.
- b) Long-eared Owls during the period 2/1-5/15.
- c) Prairie Falcons during the period 3/1-6/30.
- d) Ferruginous Hawks, Northern Harriers and Barn Owls during the period 3/1-7/31.
- e) Goshawk and Sharp-shinned Hawks during the period 3/15-7/15.
- f) Cooper's Hawks, Kestrels, and Burrowing Owls during the period 4/1-6/30.
- g) Red-tailed and Swainson's Hawk during the period 4/1-7/15.
- h) Short-eared Owls during the period 2/1-6/15.

## Other Sensitive Avian Species

*Vesper Sparrow* – This species is a ground-nester. Relative to the area, it is associated with sagebrush grasslands. The area provides potential nesting and foraging habitat.

*Loggerhead Shrike* – Potential nesting habitat is provided on the area primarily by basin and Wyoming big sagebrush. Foraging habitat is provided on sagebrush-grass areas with variable canopy cover of brush species. No nests or shrike were observed on August 13, 2008.

*Black-rosy Finch* – The area provides suitable winter habitat on sagebrush grasslands.

## **Sensitive Mammals**

### Pygmy Rabbits

Pygmy rabbits are a BLM Sensitive Species that were petitioned for listing as threatened or endangered under the Endangered Species Act. On May 20, 2005, the U.S. Fish and Wildlife Service announced a 90-Day Finding in the Federal Register indicating that, "... the petition does not provide substantial information indicating that listing the pygmy rabbit may be warranted." The Finding does not downplay the need to conserve, enhance or protect pygmy

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rabbit habitat. Pygmy rabbits are found in a variety of vegetation types that include big sagebrush that are suitable for creating their burrow system. Pygmy rabbits have been observed on a BLM-administered allotment to the northeast. The site was a stand of basin big sagebrush within an ephemeral drainage surrounded by a crested wheatgrass seeding.

The proposed site was visited by BLM specialists on August 13, 2008. No pygmy rabbits or burrows were observed during a search around the perimeter of, and within, the proposed site.

## Bats

The juniper woodlands and mountainous terrain surrounding the area provide bat roost sites. Caves, and any mine shafts or adits associated with past minerals prospecting in the area provide roost sites. Agricultural structures and abandoned buildings to the north of the project area also could provide temporary roosting habitat. Foraging areas are provided on the uplands in the area where use could occur in concert with use on irrigated hay meadows/riparian corridors on adjoining private lands and riparian areas on public lands. Many bat species have the potential of utilizing the project area, the main species are as follows:

*Small-footed myotis* -- This species could occur in the area. This species has been observed in the Ruby Mountains east of the area and in a variety of habitats in eastern Nevada, including springs, canyons, coniferous forests (including juniper), and deciduous forests. Roosting occurs primarily in caves or mine shafts or adits which potentially occur east of the area or in abandoned structures to the north.

*Long-eared myotis* -- This species is relatively common throughout northeastern Nevada and could occur in the area. This species is often associated with mid-elevation pinyon pine and Utah juniper woodlands and is dependent upon natural springs within these woodland types as water sources. It has also been reported to be found within a variety of other habitats.

*Long-legged myotis* -- This species uses a variety of sites for roosting, including trees and buildings and could potentially inhabit the area.

*Townsend's big-eared bat* - This species occurs throughout northeast Nevada, therefore there is potential for it to exist on the area. This species generally requires caves for roosting. The availability and suitability of caves near the project area is not known.

## **Effects**

Overall, the effects of the proposed action on sensitive birds and mammals that may occur in the area would be the same as those described above for wildlife. The proposed action could occur within the sensitive species birthing/nesting and young-rearing period. The sensitive birds and mammals are mobile and would likely avoid the sites while operations are in progress. The exception might be if a pygmy rabbit burrow is destroyed during drilling operations with active use within the burrow. No pygmy rabbits or their burrows were observed during a cursory check on the proposed drill site. Overall, the proposed project would occur within potential pygmy rabbit habitat over thousands of adjoining acres. The drilling of the exploration the proposed well, and if successful, production of the oil or gas resource, would not affect pygmy rabbit populations in the area.

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Surface use associated with drilling the exploration well is not expected to affect bald eagles or any other raptors that may winter in the area, since the exploration is not proposed to occur in the winter months. Limited activity would occur if oil is found and the well is put in production. BLM may place seasonal restrictions on activities in areas containing suitable raptor nesting habitat to avoid displacement and mortality of raptor young that would typically apply to a 0.5 mile radius around active nesting sites and vary from January 1 to July 31, depending on the species. Road construction and drilling operations are currently planned for completion outside of the nesting season, so are not expected to impact nesting raptors. If the schedule changes, then it is a standard operating procedure to require an inventory for active nests prior to disturbance of vegetation.

Successfully reclaimed areas could provide forage diversity and new foraging areas for Special Status Species, and in the case of predatory species such as raptors, their prey. There is the potential for depredation of seedlings by livestock (if the area is not fenced) and wildlife, primarily jackrabbits.

If well production occurs, there would be a long-term loss of habitat and possible avoidance of an undetermined area around the well site when workers are in the area or active use of equipment/machinery occurs. Some of the sensitive species would habituate to the structures and people on site and continue to utilize habitat either on, or relatively close to, the site.

### 3.2.9 Migratory Birds

On January 11, 2001, President Clinton signed an Executive Order for the Conservation of Migratory Birds. This executive order outlines the responsibilities of Federal agencies to protect migratory birds and directs executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act. Under the provisions of the Migratory Bird Treaty Act, the unauthorized take (death or injury) of migratory birds is a strict liability criminal offense that does not require knowledge or specific intent on the part of the offender. The U.S. Fish and Wildlife Service is responsible for issuing a permit to allow take of a migratory bird. References to 'species of concern' in the 2001 Executive Order pertain to those migratory bird species listed in 50 CFR 17.11, and in established plans such as for Partners in Flight physiographic areas.

The proposed action area is characterized by the basin big sagebrush vegetation types that provide foraging areas and cover diversity for migratory birds. **Table C** lists the migratory bird species from the Nevada Partners in Flight Bird Conservation Plan that are a priority for management and are associated with the sage brush habitat type. This list includes some birds that are discussed in the previous section for BLM Sensitive Species, which are shown in **bold** type in the table.

**Table C - Migratory Birds by Habitat Type\***

<b>Sagebrush</b>
<u>Obligates*</u>
<b>Sage Grouse</b>
<u>Other</u>
<b>Black Rosy Finch</b>
<b>Ferruginous Hawk</b>
Gray Flycatcher
<b>Loggerhead Shrike</b>
<b>Vesper Sparrow</b>
<b>Prairie Falcon</b>
Sage Sparrow
Sage Thrasher
<b>Swainson's Hawk</b>
<b>Burrowing Owl</b>
Calliope Hummingbird
<u>Other Associated Species</u>
Brewer's Sparrow
Western Meadowlark
Black-throated Sparrow
Lark Sparrow
Green-tailed Towhee
Brewer's Blackbird
Horned Lark

## **Effects**

The effects of the proposed action on migratory birds would be the similar to those discussed in the previous section for sage grouse, raptors and other passerine sensitive avian species.

Construction is not proposed during the nesting or brood-rearing season (approximately April 1 - July 31). If rescheduled, then destruction of eggs or mortality of young birds could be avoided if a survey for active nests is completed for migratory birds as well as sage grouse and raptors.

## **3.2.9 Visual Resources**

The proposed action is located within a Class IV Visual Resources Management (VRM) area. Objectives for this VRM class are to partially retain the existing character of the landscape. Management activities in Class IV areas may contain contrasts which attract attention but not dominate the view of the casual observer. Changes should repeat the basic elements of form, line, texture and color found in the predominant natural features of the characteristic landscape.

This area can be described as a shale green rolling landscape broken by the shapes of the horizontal/vertical fence posts and linear two track access road. Pale green sagebrush/grass vegetation sparsely covers the landscape. Clumps of Juniper green trees are on the ridges to the east of the project. Soil colors along the roadway are tan. Man-made features within a mile of this project include barb wire fences.

## **Effects**

No lights are proposed to be on the facilities at night. The proposed action would introduce additional linear features. The linear features introduced by the well site access road and fences would create weak contrasts with the natural landscape. Color contrasts would be moderate with

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the exposure of the tan soils. Should production be established, the pumpjack would introduce an angular form which would contrast with the rolling topography. Using the VRM Best Management Practices of painting the pumpjack shale green (Munsell Soil Color No. 5Y 4/2) as described in the proposed action would reduce the color contrasts with the surrounding vegetation. If production is established, these changes to the landscape would remain for a period of up to 50 years. Successful reclamation of the well site and access road would meet Class IV Visual Resources Management objectives.

## **3.2.10 Vegetation, including Invasive Non-Native Species**

Species found on the drill pad site, along the access road and at the gravel pit include crested wheatgrass in the range seeding, native sagebrush, rubber rabbitbrush and Great Basin wildrye. Invasive species in the area include annual cheatgrass.

Hoary cress, a noxious weed, has been documented in the area, but it nor any other noxious weeds were found during the on-site visit at the site or along the access road.

## **Effects**

This exploration project would disturb approximately 1.5 acres of vegetation. If production is established, the drill pad and access road would remain disturbed and 1.5 acres of vegetation would be removed and not revegetated until the oil/gas resources are depleted and the well plugged and abandoned. If oil production is not established, the pad area along with the new access road would be reclaimed and reseeded. Fencing of reseeded areas and seeding in the fall would have the most likelihood of being successful.

Blading during road construction operations could introduce weeds into the disturbed areas. This risk could be reduced by having construction equipment washed prior to road construction.

## **3.3 CUMULATIVE IMPACTS**

All resource values have been evaluated for cumulative impacts. Past geophysical exploration projects have occurred in the Ruby Valley area. Past and present actions within the Ruby grazing allotment include seeding and fencing projects. Use of material sites for gravel has occurred in the past, and is expected to continue during the life of this project, which would extend until areas disturbed by the exploration and any production phase are successfully reclaimed.

Livestock grazing of the area occurs, and continued grazing of the allotment is foreseeable. Riparian areas are in good condition, and are expected to filter sediment contributions to tributary drainage to Franklin River during runoff events following construction of the access road and well pad.

Since 1970, there have been 3 exploration oil/gas wells drilled within Ruby Valley. The nearest well was located 2000 feet southeast of this project. The well was drilled by Sohio oil Company in 1980. Another well the Franklin USA #1 was drilled by Amoco Production Company in 1970,

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3¼ miles northwest of this project. The third well, the Stonier #2 was drilled by the Union Oil Company of California in 1979, 8 ½ mile northwest of this project. All three wells were dry. These exploration wells disturbed approximately six acres of the surface over that time. Well pads from the 1970s and early 80s have naturally re vegetated with vegetation variety and density similar to the surrounding area. BLM concludes that cumulative impacts would be negligible as a result of the proposed action.

## 3.4 MITIGATION AND MONITORING

Charter Oak Production Company. holds the oil and gas lease (NVN-83853), and the application is for drilling the Ruby Valley Fed. 1-11 well and construction of an access road. The area has been leased subject to standard lease terms, and with the special stipulation for sage grouse. Section 6 of the standard federal oil and gas lease (Form 3100-11) provides the BLM with authority to require reasonable measures to minimize adverse impacts to cultural and natural resources, consistent with lease rights granted. As a result of the analysis in this EA, the Wells Field Office recommends the following mitigation and monitoring measures be required as a condition of approving the APD.

### **Cultural Resources and Tribal Consultation**

Although no sites eligible for the National Register of Historic Properties were identified as a result of inventory and site visits, the approval of the APD should provide notice of the following requirements for all operations of this project (OG-010-05-03):

If historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E. O. 13007 [Sacred Sites], or other statutes and executive orders, the BLM will not approve any ground disturbing activities that may affect any such properties or resource until it completes its obligation under applicable requirements of NHPA and other authorities. The BLM may require modifications to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.

During the project activities, if any cultural properties, items, or artifacts (stone tools, projectile points, etc...) not previously recorded by BLM are encountered, it must be stressed to those involved in Oil Well Exploration that such items are not to be collected and that the BLM, Elko Field Office must be notified of the discovery. Cultural and archaeological resources are protected under the Archaeological Resources Protection Act and the Federal Land Management Policy Act. Also, though the possibility of disturbing Native American gravesites within the project area is extremely low, inadvertent discovery procedures must be noted. Under the Native American Graves Protection and Repatriation Act, section (3)(d)(1), it states that the discovering individual must notify the land manager in writing of such a discovery. If the discovery occurs in connection with an authorized use, the activity, which caused the discovery, is to cease and the materials are to be protected until the land manager can respond to the situation.



# Ruby Valley Federal 1-11 Oil Well Environmental Assessment

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## **Water Resources, Wetlands and Riparian Areas**

The Energy Policy Act of 2005 amended sections of the Clean Water Act to exempt oil and gas exploration and development activities from requirements for a National Pollution Discharge Elimination System (NPDES) permit. Implementation of Best Management Practices (BMPs) would minimize soil lost from the site. Installation of sediment filters such as straw waddles at key locations below the drill pad would prevent sediment from entering the surface water. Waddles placed across areas where water is likely to concentrate including trails, roads, disturbed areas and headwaters of gully channels will reduce flow velocities and opportunities for sediment transport to wetland and riparian areas.

## **Wildlife**

Sage Grouse - No leks occur within 0.5 miles of the proposed well (OG-010-05-07). The area is not in crucial winter habitat for sage grouse (OG-010-05-09). However, brood-rearing may occur in habitat near the access road or well pad site. Approval of the surface use plan, including construction of the access road and drilling of the well, should be conditioned upon the following:

- Seasonal restrictions from disturbance in sage grouse brood-rearing areas apply within 0.5 miles or other appropriate distance based on site-specific conditions from 5/15 to 8/15, inclusive. This restriction does not apply to operating facilities. (OG-010-05-08)

Raptor Nests – Active raptor nesting sites are subject to seasonal protection from disturbance to avoid displacement and mortality of raptor young (OG-010-05-01). Restrictions apply up to a 0.5 mile radius around the active nesting sites of the following species during the period described below.

- a) Golden Eagles and Great Horned Owls during the period 1/1-6/30.
- b) Long-eared Owls during the period 2/1-5/15.
- c) Prairie Falcons during the period 3/1-6/30.
- d) Ferruginous Hawks, Northern Harriers and Barn Owls during the period 3/1-7/31.
- e) Goshawk and Sharp-shinned Hawks during the period 3/15-7/15.
- f) Cooper's Hawks, Kestrels, and Burrowing Owls during the period 4/1-6/30.
- g) Red-tailed and Swainson's Hawk during the period 4/1-7/15.
- h) Short-eared Owls during the period 2/1-6/15.

Disturbance is planned outside of the nesting season. If construction of the access road or well site is [re]scheduled during the raptor nesting period (generally January 1 through July 31), then the operator should employ a qualified biologist to inventory the areas prior to disturbance for active nests. Any nesting activity should be reported to the BLM for a determination of appropriate mitigation measures.

Other Species of Concern -- In addition to nesting raptors, the above biological survey should report any observations of other wildlife species of concern, including sage grouse, pygmy rabbits and migratory birds listed in the EA. The nesting season for migratory birds is generally April 1 – July 31. Any take of a migratory bird must be avoided.

# Ruby Valley Federal 1-11 Oil Well Environmental Assessment

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## **Vegetation/Noxious Weeds**

Blading during road construction operations could spread noxious weeds into the disturbed areas. Washing the construction equipment prior to road construction would reduce the chances of spreading noxious weeds.

## **Reclamation**

The BLM recommended seed mixture (Table A, page 4) should be sown during the fall or early winter season, immediately following the seedbed preparation. Following seeding, a fence meeting BLM specifications should be constructed around the drill pad area. This fence should remain in place for a period of three growing seasons to promote successful revegetation of the disturbed area. The fence would be removed following BLM determination that the reclamation is successful.

## **Monitoring**

At least three inspections would be done by BLM personnel to monitor the operations. The first would be done during the pre-drill meeting before any disturbance occurs, one inspection would be done while the drill rig is on location and one inspection following reclamation of the site.



## **4 CONSULTATION and COORDINATION**

### **4.1 PREPARERS**

Jim Lindsay - Lead Preparer, Geology and Minerals  
Tim Murphy - Cultural Resources  
Danielle Storey - Native American Coordination  
Tamara Hawthorne - Recreation/Wilderness/VRM  
Mark Dean - Soil, Water and Air Resources  
Joey James Giustino - Lands and Realty  
Derrick Holdstock - Terrestrial Wildlife  
Lorrie West - Environmental Coordination and Planning

### **4.2 PERSONS, GROUPS AND AGENCIES CONSULTED**

Bob Gibson and Mark Savoda, Charter Oak Production Company (applicant/operator)  
John Menghini, BLM, Nevada State Office, Minerals  
Katie Miller, Mining Biologist, Nevada Department of Wildlife

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# Ruby Valley Federal 1-11 Oil Well Environmental Assessment

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## Well Site Photos



View to northwest, Ruby & Humbolt Ranges



View to northeast, Spruce Mountain



View to the west, Ruby Mountains



View to the west, Ruby Mountains



View to the west, Ruby Mountains

# Ruby Valley Federal 1-11 Oil Well Environmental Assessment

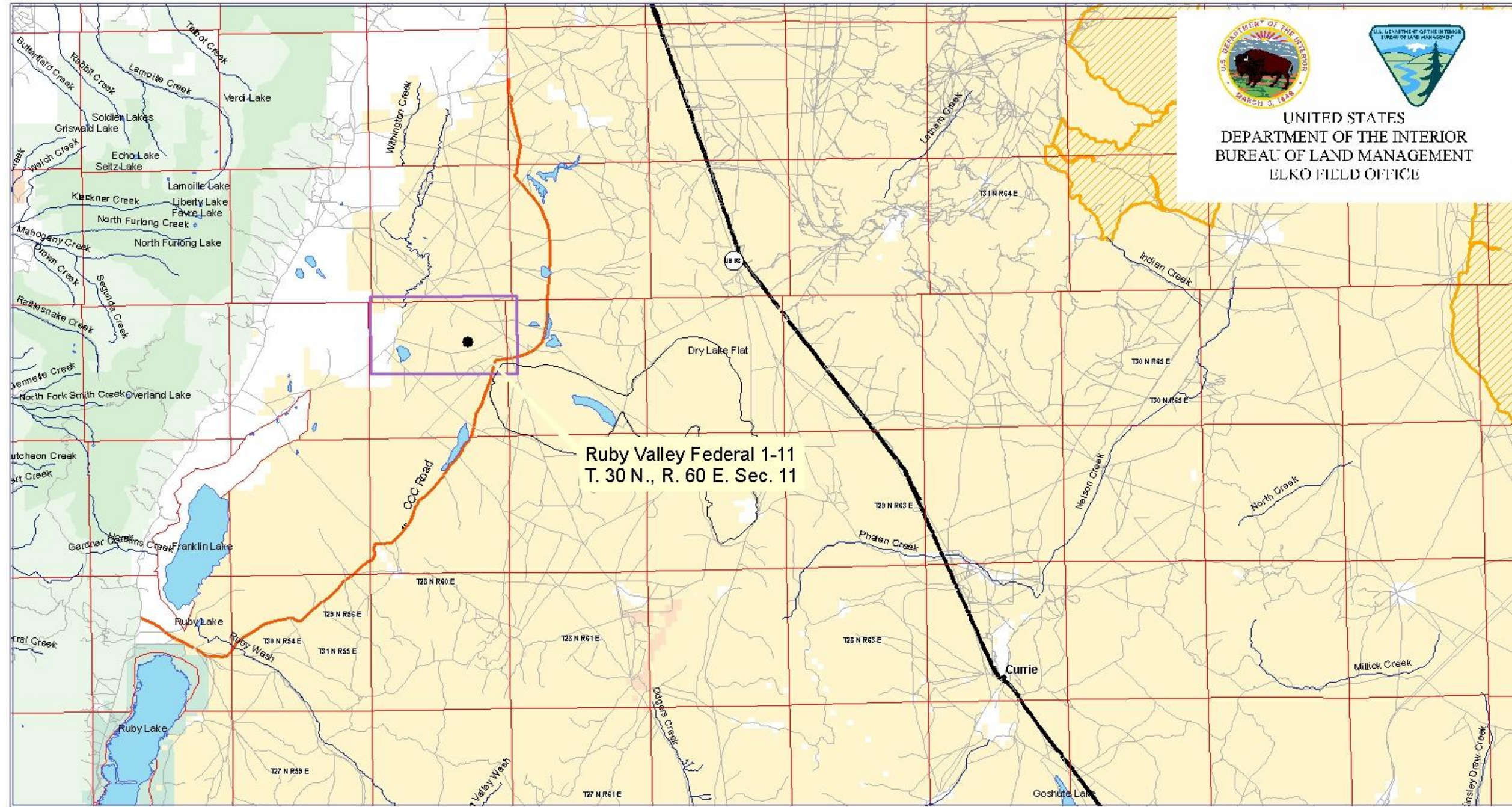
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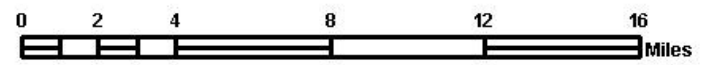


# Ruby Valley Federal 1-11 Oil Well Environmental Assessment

## Map A – Vicinity Map



Data published in:  
North American Datum 1983 (NAD83)  
UTM coordinates, Zone 11, meters



"NO WARRANTY IS MADE BY THE BUREAU OF LAND MANAGEMENT AS TO THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THESE DATA FOR INDIVIDUAL USE OR AGGREGATE USE WITH OTHER DATA."

### Legend

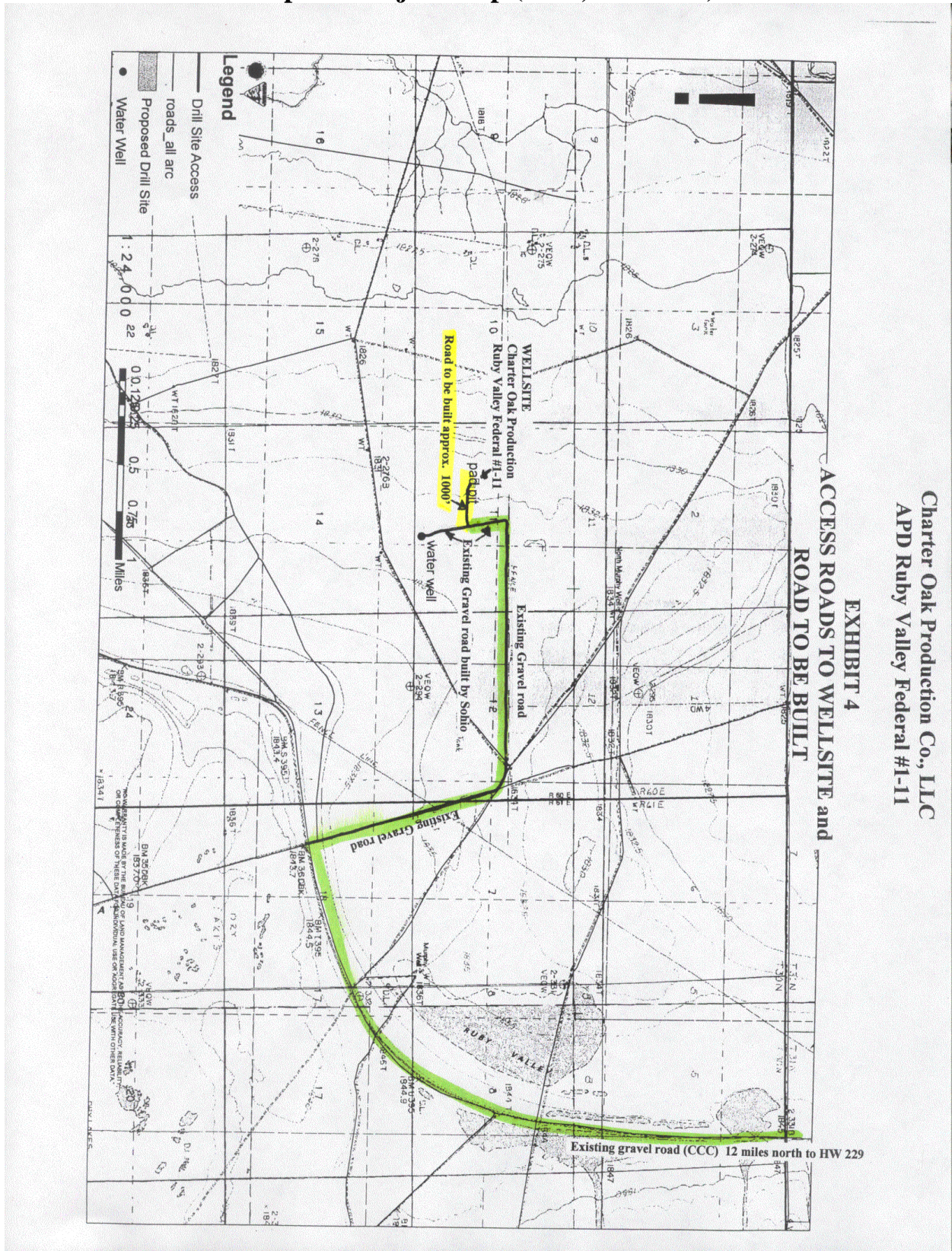
- Analysis Area
- Public (Administered by BLM)
- Native American Reservation
- U.S. Fish & Wildlife Service
- Bureau of Reclamation
- Private
- USFS Wilderness Area
- Department of Defense
- U.S. Forest Service





# Ruby Valley Federal 1-11 Oil Well Environmental Assessment

## Map B – Project Map (APD, Exhibit 4)



# Ruby Valley Federal 1-11 Oil Well Environmental Assessment

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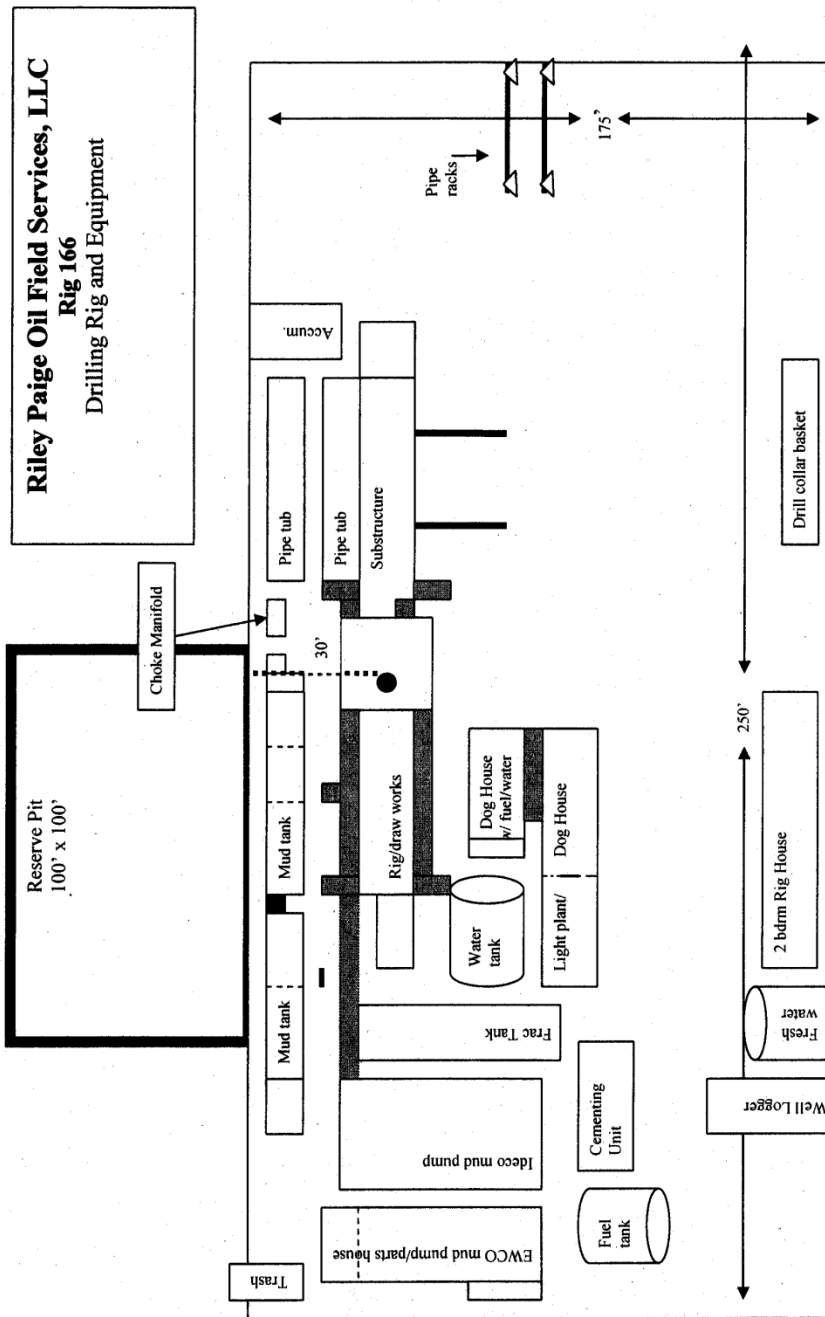
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# Ruby Valley Federal 1-11 Oil Well Environmental Assessment

## Charter Oak Production Co., LLC APD Ruby Valley Federal #1-11

### EXHIBIT 8 RIG LAYOUT AND BOP INFORMATION



**Riley Paige Oil Field Services, LLC**  
Rig 166  
Drilling Rig and Equipment

- Measurements/Capacities**
- Trash Container--8x20
  - EWCO pump--13x38
  - Ideco pump--13'8x30
  - Fuel Tank--8x19, 6600 gal
  - Cementing Unit--9x25
  - Frac Tank--8x39, 500 bbl
  - Well logger house--10x40
  - Mud tanks--7'6x34, 150 bbl
  - 7'6x35'6, 170 bbl
  - Rig/draw works--18x39'6
  - Water Tank--10'3x20'6, 260 bbl
  - Dog house w/ fuel/water--10x20, 2250 gal/200 bbl
  - Light plant/Dog house--8x40
  - Fresh water tank--8x20, 157 bbl
  - Drill collar basket
  - 2 bdrm Rig House
  - Choke manifold--4x7'6
  - Pipe tubs--7'3x35
  - Accumulator--7'3x14
  - Substructure--7x64
  - Drill collar basket--7x35
  - 2 bdrm Rig house--10x55
  - Pipe racks--2-30'