BLM

Tonopah Field Office

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June 2013 Competitive Oil and Gas Lease, Battle Mountain District, Tonopah Field Office, Nevada

PRELIMINARY ENVIRONMENTAL ASSESSMENT

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1.0 INTRODUCTION

It is the policy of the Bureau of Land Management (BLM) as derived from various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976, to make mineral resources available and to encourage development of mineral resources to meet national, regional, and local needs.

The BLM Nevada State Office (NSO) conducts competitive lease sales for oil and gas lease parcels in the Battle Mountain District. The NSO publishes a Notice of Competitive Lease Sale (NCLS) that lists lease parcels offered at the auction at least 45 days before the auction is held. The BLM bases its decision as to which parcels to offer for this competitive lease sale on current information and the management framework developed in the appropriate district or field area Resource Management Plan (RMP).

In the process of preparing a lease sale, the NSO sends a list of nominated parcels to each field office where the parcels are located. Through an environmental assessment, the Field Office staff then reviews the parcels to determine:

- If they are in areas open to leasing;
- If new information has become available which might change any analysis conducted during the planning process;
- If appropriate consultations have been conducted;
- What appropriate stipulations should be included; and
- If there are special resource conditions of which potential bidders should be made aware.

Based on the environmental assessment, the Nevada BLM State Director will decide which parcels to make available for leasing and which stipulations to attach to the parcels. Those parcels and stipulations that are included in the State Director's decision will then be made available to the public through a NCLS. Lease stipulations applicable to each parcel are specified in the Sale Notice. On rare occasions, additional information obtained after the publication of the NCLS, may result in withdrawal of certain parcels prior to the day of the lease sale.

This Environmental Assessment (EA) documents the review of 39 Tonopah Field Office (TFO) administered parcels nominated in the June 2013 Competitive Oil and Gas Lease Sale (Figure 1). A total of 39 parcels are proposed for the lease sale. One parcel, Parcel 30, is located in Forest Service (FS) managed land and, because the BLM manages the subsurface minerals, will be analyzed in this environmental assessment. The EA verifies conformance with the approved land use plan and provides the rationale for any lease stipulations applied to specific parcels.

An assessment of environmental impacts, based on a Reasonably Foreseeable Development (RFD) scenario from the leasing that might result from an oil and gas lease sale was conducted by resource specialists who relied on historical data and personal knowledge of the areas involved, conducted field inspections or reviewed existing databases and file information to

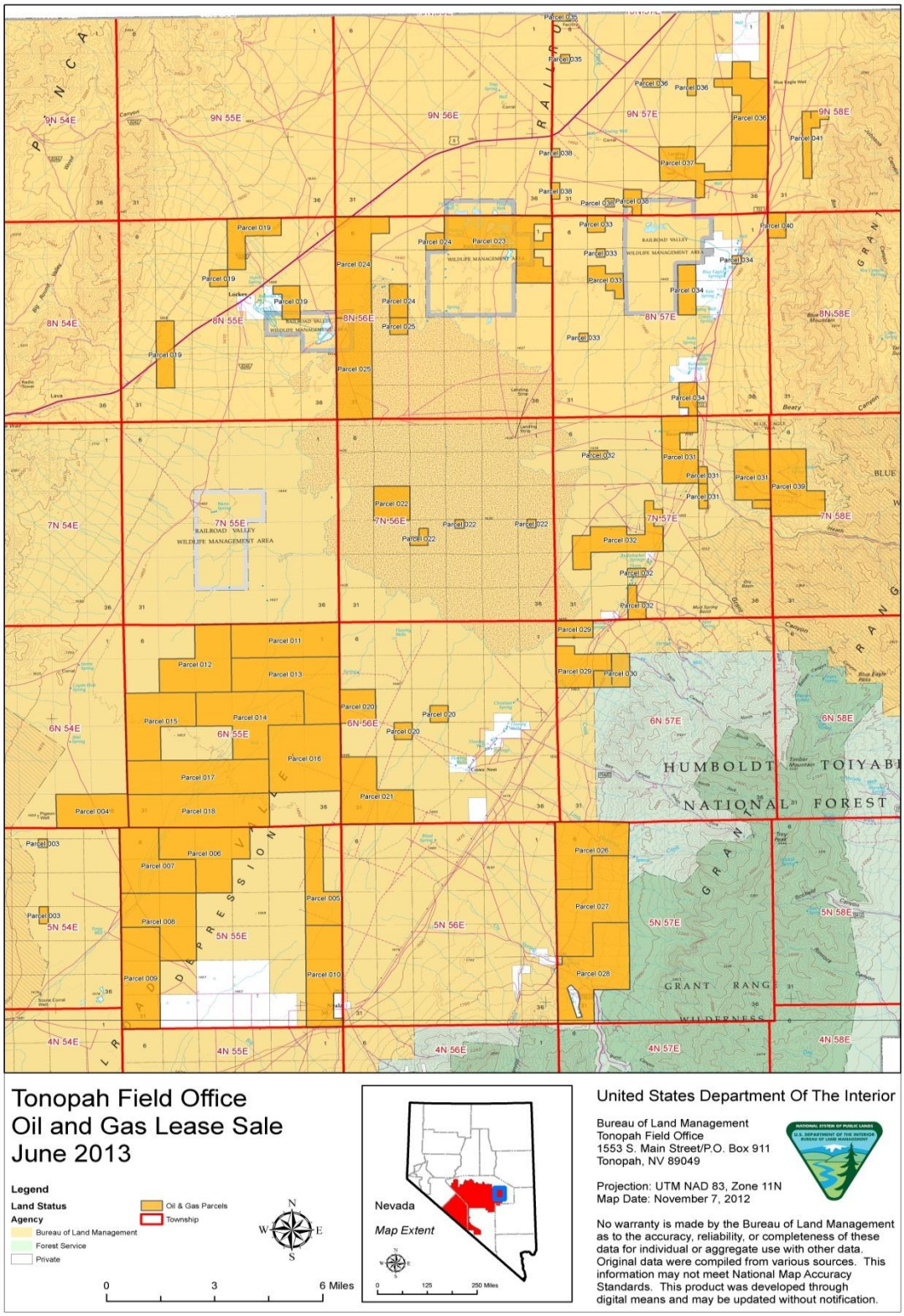

Figure 1. Location map of the oil and gas lease parcels for June 2013 lease sale.

determine the appropriate stipulations to attach to specific parcels.

At the time of this review, it is not known whether nominated parcels will receive bids, if leases will be issued, or if well sites or roads might be proposed in the future. Detailed site specific analysis of individual wells or roads would occur when an Application for Permit to Drill (APD) is submitted.

The assessment area is approximately 287,650 acres in Railroad Valley located in the northeast corner of Tonopah Field Office (TFO) resource area.

2.0 PURPOSE AND NEED

Oil and gas leasing is necessary to maintain options for production of oil and gas as companies seek new areas for production or attempt to locate and develop previously unidentified, inaccessible or uneconomical reserves. Leasing is proposed to meet requirements of the Mineral Leasing Act of 1920, as amended, the Mining and Minerals Policy Act of 1970, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Reform Act). Oil and gas are marketable resources that meet the public's need for energy.

Offering parcels for competitive oil and gas leasing provides for the orderly development of fluid mineral resources under BLM's jurisdiction in a manner consistent with multiple use management and environmental consideration for the resources that may be present. This requires that adequate provisions are included with the leases to protect public health and safety and assure full compliance with the spirit and objectives of NEPA and other federal environmental laws and regulations.

The BLM is required by law to consider leasing of areas that have been nominated for lease if leasing is in conformance with the BLM land use plan. The oil and gas parcels addressed in this EA cannot be considered for leasing without supplemental analysis of changed conditions in the human environment that have occurred since the completion of the current LUP (e.g., increased growth, locations of special status species, identification of traditional cultural properties).

2.1 Land Use Plan Conformance

The proposed action is in conformance with the Tonopah RMP, approved on October 2, 1997, for the Tonopah Planning Area. The proposed action is in conformance with the RMP because it is specifically provided for in the following LUP decisions:

Page 22 of the RMP, under the heading "Fluid Minerals" subtitled "Objective": "To provide opportunity for exploration and development of fluid minerals such as oil, gas, and geothermal resources, using appropriate stipulations to allow for the preservation and enhancement of fragile and unique resources".

2.2 Relationship to Statutes, Regulations, Policy, Plans and Other Environmental Analysis

Purchasers of oil and gas leases are required to obey all applicable federal, state, and local laws and regulations including obtaining all required permits should lease development occur. Federal regulations and policies require the BLM to make its public land and resources available based on the principle of multiple-use. At the same time, it is BLM policy to conserve special status species and their habitats, and ensure that actions authorized by the BLM do not contribute to the need for the species to become listed as threatened or endangered by the United States Fish and Wildlife Service (USFWS).

The BLM must adhere to Section 106 of National Historic Preservation Act (NHPA). The BLM also must comply with Nevada State Historical Preservation Office (SHPO) protocol agreement, which is authorized by the National Programmatic Agreement between the *BLM*, the *Advisory Council on Historic Preservation*, and the *National Conference of State Historic Preservation Officers.*

As the BLM reviews draft parcel locations, the cultural resource staff reviews the locations to determine if any are within known areas of cultural or archeological concern. If Traditional Cultural Properties (TCP) or heritage-related issues are identified, such parcels are withheld from the sale while letters requesting information, comments, or concerns are sent to Native American representatives. If the same draft parcels appear in a future sale, a second request for information is sent to the same recipients and the parcels may be held back again. If no response to the second letter is received, the parcels may be offered in the next sale.

If responses are received, BLM cultural resources staff will discuss the information or issues of concern with the Native American representative to determine if all or only portions of a parcel need to be withdrawn from the sale or if special stipulations need be attached as lease stipulations.

The Proposed Action and alternatives would be in conformance with the National Environmental Policy Act (NEPA) of 1969, (P.L. 91-190 as amended (42 USC §4321 et seq.); Mineral Leasing Act (MLA) of 1920 as amended and supplemented (30 USC 181 et seq.); the Federal Oil and Gas Leasing Reform Act of 1987, which includes the regulatory authority under 43 Code of Federal Regulation (CFR) 3100, Onshore Oil and Gas Leasing; General, and Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) Right-of-Way (ROW) under regulatory authority under 43 CFR 2800 for ROWs.1.4 Scoping and Public Involvement

2.3 Scoping and Public Involvement

Native American consultation letters for the June 2013 Lease Sale were sent on December 6, 2013. On January 3, 2013, a resource specialist met with a representative of the Duckwater Shoshone Tribe in Tonopah. Lease parcels of interest to the tribes were visited on that day. Comments were received from the Duckwater Shoshone tribe on January 10, 2013.

Nevada Department of Wildlife (NDOW) was informed of the lease sale on November 19, 2012. A response letter was received from NDOW on December 14, 2013.

3.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

3.1 Proposed Action

The Proposed Action is to lease 39 parcels of federal minerals covering approximately 63,616 acres administered by the TFO. Standard terms and conditions as well as special stipulations would apply. One lease Parcel, parcel 030 is on FS land and FS stipulations would apply to this parcel.

The 39 parcels' numbers, acreages, and locations are listed in Appendix A.

Oil and gas leases are issued for a 10-year period and continue for as long thereafter as oil or gas is produced in paying quantities. If a lessee fails to produce oil and gas, does not make annual rental payments, does not comply with the terms and conditions of the lease, or relinquishes the lease; ownership of the minerals revert back to the federal government and the lease can be resold.

Drilling of wells on a lease is not permitted until the lease owner or operator secures approval of a drilling permit and a surface use plan specified under Onshore Oil and Gas Orders, Notice to Lessee's (NTL's) listed in Title 43 CFR 3162.

The 39 parcels contain a special Cultural Resources Lease Notice stating that all development activities proposed under the authority of these leases are subject to compliance with Section 106 of the NHPA and Executive Order 13007. Standard terms and conditions as well as special stipulations listed in the RMP would also apply.

The stipulations that would be attached to the leases under this Alternative and the leases to which they would be attached are found in Appendix B.

3.2 No Action Alternative

The BLM NEPA Handbook (H-1790-1) states that for EAs on externally initiated proposed actions, the No Action Alternative generally means that the proposed action would not take place. In the case of a lease sale, this would mean that all expressions of interest to lease (parcel nominations) would be denied or rejected.

Under the No Action Alternative the BLM would withdraw all 39 lease parcels from the June 2013 lease sale. Surface management would remain the same and ongoing oil and gas development would continue on surrounding leased federal, private, and state lands.

If the BLM does not lease these Federal mineral resources, demand would likely be addressed through imports or production elsewhere.

3.3 Reasonably Foreseeable Development Scenario

A Reasonably Foreseeable Development Scenario (RFD) for oil and gas is a long-term projection of oil and gas exploration, development, production, and reclamation activity. The RFD covers oil and gas activity in a defined area for a specified period of time. The RFD projects a baseline scenario of activity assuming all potentially productive areas of the leases included in the proposed action can be open under standard lease terms and conditions, except those areas designated as closed to leasing by law, regulation, or executive order. The baseline RFD provides the mechanism to analyze the effects that discretionary management decisions have on oil and gas activity. The RFD also provides the basic information that is analyzed in the NEPA document under various alternatives. The RFD discloses indirect future or potential impacts that could occur once the lands are leased. Prior to any future development, the BLM would require a site-specific environmental analysis at the exploration and development stages in order to comply with NEPA.

3.3.1 General Assumptions for the Reasonably Foreseeable Development Scenario

The RFD provides the basis for the analysis of the environmental consequences in Chapter 4 of this document. The RFD for the Assessment Area is based on the geology, oil and gas development history, oil and gas potential, BLM well data, and data from other EAs for oil and gas leases in eastern Nevada.

3.3.2 Trends and Projections for Oil and Gas Exploration in Nevada and Railroad Valley.

Oil production data from the Nevada Bureau of Mines and Minerals (Figure 2) show that Oil and gas production has fallen off since the early 1990s and has flattened out at less than 500,000 barrels per year. With new technologies such as horizontal drilling in plays like the Bakken in North Dakota drawing off investment and drilling equipment, it is highly unlikely that the trend would improve much over the next ten years.

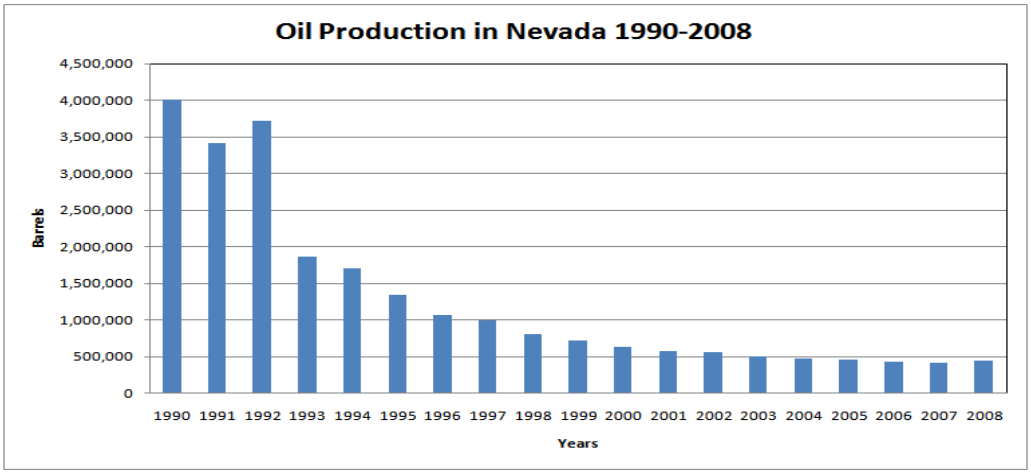

Figure 2. Oil production trends for 1990 through 2008.

However wildcatting may continue on a sporadic basis and another large discovery in Nevada could reverse this trend.

As part of the 1997 RMP, the BLM conducted a RFD scenario for oil and gas. The assumptions used in the RMP are presented in the 1997 RMP document.

The RMP (1997) projected that 30 wildcat wells would be drilled through the year 2014 for a total disturbance of 296 acres. They also projected a number of additional production wells in old fields and estimated a total future surface disturbance of 131 acres. The 1997 RMP also projected the development of two additional oil fields with a total future disturbance of 944 acres. Finally, the total estimated disturbance for oil and gas development in the Railroad Valley area was estimated at 1,211 acres. This calculates to about 71 acres per year of disturbance.

This assessment provides a clear basis for estimating a very low development potential for oil and gas disturbance that might indirectly result from the June oil and gas lease sale. Conservatively, over the next ten years, 710 acres of disturbance could be expected to occur. Considering that the total number of acres in this lease sale is approximately 63,616 acres, the total amount of disturbance could be expected to be about one percent (1.1%).

4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes the resource environments that would be affected by the implementation of the Proposed Action Alternative in Section 3.1 above.

4.1 Supplemental Authorities to be considered

To comply with the National Environmental Policy Act (NEPA), the Bureau of Land Management is required to address specific elements of the environment that are subject to requirements specified in statute or regulation or by executive order (BLM 1988, BLM 1997, BLM 2008). The following table (Table 1) outlines the elements that must be addressed in all environmental analyses, as well as other resources deemed appropriate for evaluation by the BLM, and denotes if the Proposed Action or No Action Alternative affects those elements.

Supplemental Authority	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Air Quality			√	See discussions in Sections 4.4.1 and 5.3.1.
Area of Critical Environmental Concern (ACEC)	√			The nominated lease parcels are not located in or near any ACECs.
Cultural/Historical			√	See discussions in Sections 4.4.2 and 5.3.2.

Supplemental Authority	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Environmental Justice	√			As of 2009, Esmeralda County and Nye County, respectively, had 6.9 and 16.2 percent of the population living below poverty level. Additionally, Esmeralda and Nye County had a non-white (minority) population of approximately 23 and 21 percent (BLM, 2011). Drilling activities often provide a few short-term employment opportunities that may be afforded to low income or disadvantaged individuals. This would be a small but positive socioeconomic benefit.
Farmlands Prime or Unique	√			
Noxious Weeds/Invasive Non-native Species			√	See discussion in Sections 4.4.7 and 5.3.7.
Native American Religious Concerns			√	See discussions in Sections 4.4.3 and 5.4.3.
Floodplains			√	See discussion in Section 3.4.9 and 5.3.9.
Riparian/Wetlands/			√	See discussion in Sections 4.4.5 and 5.3.5.
Threatened, Endangered Species.			√	See discussion in Sections 4.4.4 and 5.3.4.
Migratory Birds			√	See discussion in Sections 4.4.4 and 5.3.4.
Waste – Hazardous/Solid			√	See discussion in Sections 4.4.6 and 5.3.6.
Water Quality			√	See discussion in Sections 4.4.5 and 5.3.5.
Wild & Scenic Rivers	√			The nominated parcels are not located in or near any wild and scenic rivers.
Wilderness	√			Some of the nominated lease parcels are located near the Wall Wilderness Study Area (WSA) but

Supplemental Authority	Not Present	Present/Not Affected	Present/May be Affected	Rationale
				the WSA is not affected by the nominated lease parcels.
Forests and Rangelands (HFRA only)	√			This is not a HFRA related proposal, thus the HFRA does not apply.
Human Health and Safety.	√			

Table 1. Critical elements under Supplemental Authorities considered in this EA.

4.2 Other Resources

Other resources of the human environment that have been considered for this environmental assessment (EA) are listed in Table 2 below. Elements that may be affected are further described in the EA. Rationale for those elements that would not be affected by the proposed action and alternative is listed in the table below.

Other Resources	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Grazing Management			√	See discussion in Sections 4.4.12 and 5.3.12.
Land Use Authorization			√	See discussion in Sections 4.4.13 and 5.3.13.
Minerals			√	See discussion in Sections 4.4.8 and 5.3.8.
Paleontological Resources	√			There are no known paleontological resources in the assessment area.
Recreation			√	See discussion in Sections 4.4.15 and 5.3.15.
Socio-Economic Values			√	See discussion in Sections 4.4.16 and 5.3.16.
Soils			√	See discussion in Sections 4.4.10 and 5.3.10.
Special Status Species			√	See discussion in Sections 4.4.3 and 5.3.3.
Vegetation			√	See discussion in Sections 4.4.11 and 5.3.11.
Visual Resources			√	See discussion in Sections 4.4.14 and 5.3.14.
Wild Horses and Burros	√			There are no wild horses or burros in Railroad Valley.

Other Resources	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Wildlife			√	See discussion in Sections 4.4.4 and 5.3.4.

Table 2. Other resources considered in this EA.

4.3 Environmental Impacts of No Action Alternative

The no action alternative would mean a rejection or denial of the lease parcels for sale. This in turn means that no on-the-ground actions would occur (geophysical exploration, exploration drilling, etc.). There are no resulting actions that could be reasonably considered in terms of impacts to resources. Since there would not be impacts to resources from the no action alternative, it is not considered further in this chapter of the EA.

4.4 Impacts Requiring Further Analysis

The following resources have been determined, through internal scoping, to be present and potentially affected by the nominated lease parcels: air quality, cultural resources, noxious weeds, wetlands/riparian zones, minerals, soils, migratory birds, water quality/hydrology, vegetation, wild horses and burros, visual resource management, wastes (hazardous and solid), threatened and endangered species, special status species, Native American concerns, wildlife, range resources, lands and realty, recreation, and socioeconomics. These resources will be brought forth for further analysis in this Environmental Assessment.

There would be no direct impacts from issuing new oil and gas leases because leasing does not directly authorize oil exploration and development activities. Direct impacts from these activities would be analyzed under a separate site-specific environmental analysis at the time activities are proposed.

The reader should note that in the following sections only indirect impacts that might result from the proposed action are considered.

4.4.1 Air Quality

Affected Environment

Weather in central Nevada is characterized by low humidity with large diurnal variations in temperature. Prevailing wind patterns are generally from the west but locally follow the north-south orientations of the mountain ranges. Occasional intense winds can cause localized dust storms and decreased visibility.

Air quality in Railroad Valley has been designated as “attainment/unclassified” (which means it either meets, or is assumed to meet, the applicable federal ambient air quality standards) for all standard (“criteria”) air pollutants (U.S. Environmental Protection Agency, 2007). The Nevada Department of Conservation and Natural Resources, Division of Environmental Protection,

Bureau of Air Pollution Control has been delegated responsibility by both the U. S. Environmental Protection Agency and the State of Nevada to regulate emissions of air pollutants in Nevada.

The lease parcels are not located in or adjacent to any mandatory Class I (most restrictive) federal air quality areas, U.S. Fish and Wildlife Service Class I air quality units, or American Indian Class I air quality lands.

Environmental Consequences of the Proposed Action Alternative on Air Quality

Potential indirect impacts would result from exploration activities where the fine-grained nature of some soils within the lease area would likely contribute to a local increase in dust particles from mineral materials mining and access road and well pad construction. The effect on air quality would be an increase in fugitive dust related to freshly disturbed ground surfaces and exhaust fumes from motorized equipment during site construction and drilling activities. Increased traffic on the existing roads would also add to the total; however, for most drilling activities, the impacts would be minor and would occur over a two to three week period. Impacts to air quality would cease when these activities cease. The implementation of the BMPs, COAs, and mitigation measures would reduce impacts to air quality. All operations would comply with applicable air quality standards.

Since oil and gas exploration activity is expected to be minimal (see Section 3.4) impacts to air quality are not expected to be significant. The Proposed Action would not result in an exceedance of the National Ambient Air Quality Standards (NAAQS) standards.

4.4.2 Cultural Resources

Affected Environment

All of the lease parcels are located in Railroad Valley, the traditional territory of the Western Shoshone and possibly the Paiute Tribes. The majority of lands within the proposed lease areas have not been surveyed for cultural resources. A predictive model (Railroad Valley Predictive Model) has been developed to help predict cultural site density within a specific area of Railroad Valley. The goal of the model is to recommend survey methods for future projects based on the likelihood of finding sites within five archaeological zones defined by the model. These zones are identified using existing habitat and archaeological data, and by doing Class II archaeological surveys in some areas. This type of modeling can be a useful tool for predicting where prehistoric sites may be located, but it is not a useful tool for predicting the location of historic or ethnohistoric sites.

To date, the model has not been adequately tested and Class III cultural surveys are required for projects within the area defined by the predictive model. The model can be used to predict the possibility of finding significant prehistoric archeological sites in a project area. However, it cannot be used to predict the possibility of finding significant historic or ethnohistoric sites or to reduce the level of survey needed for a project.

Lease Parcels Located Inside the Area Defined By the Railroad Valley Predictive Model

Arch Zone 1
The following parcels are partially or wholly located within Arch Zone 1. There is a high likelihood of finding significant archaeological sites in this zone. Sites are unevenly distributed and highly diverse. There is a high to moderate likelihood of subsurface cultural deposits. Ground disturbing activities should be monitored.

Parcels: 011, 012, 013, 014, 016, 019, 020, 021, 023, 024, 026, 027, 028, 029, 031, 032, 033, 034, 035, 036, 037, 038, and 040

Arch Zone 2
The following parcels are partially or wholly located within Arch Zone 2. There is a high likelihood of finding significant archaeological sites in this zone. Site density is high, but lower than density levels found in Zone 1. Sites are unevenly distributed and highly diverse. There is a high to moderate likelihood of subsurface cultural deposits. Ground disturbing activities should be monitored.

Parcels: 004, 005, 010, 011, 012, 013, 014, 015, 016, 017, 018, 019, 020, 021, 023, 024, 025, 026, 027, 028, 029, 031, 032, 033, 034, 035, 036, 037, 040

Arch Zone 3
The following parcels are partially or wholly located within Arch Zone 3. There is a moderate likelihood of finding significant archaeological sites in this zone. Site density is moderately high, but lower than density levels found in Zone 1 or Zone 2. Sites are unevenly distributed and highly diverse.

Parcels: 003, 004, 005, 006, 007, 008, 009, 010, 012, 013, 014, 015, 016, 017, 018, 019, 020, 021, 024, 026, 027, 028, 029, 031, 032, 035, 040, and 041

Arch Zone 4
The following parcels are partially or wholly located within Arch Zone 4. There is a moderate to low likelihood of finding significant archaeological sites in this zone. Site density is low, but may be moderately high in areas abutting zones 1-3. Sites show little diversity.

Parcel: 026

Arch Zone 5
The following parcels are partially or wholly located within Arch Zone 5. There is a low likelihood of finding significant archaeological sites in this zone. Site density is low and diversity is limited. This zone includes some playa areas where surveys may not be required once the predictive model is fully tested.

Parcels: 003, 019, 022, 024, 025, 029, 032, 036, and 037

No Data Zone

The following parcels are partially or wholly located within a No Data Zone. There is not enough data available in this zone to be able to adequately evaluate the sensitivity of this area.

Parcel: 023

Lease Parcels Located Outside of the area defined by the Railroad Valley Predictive Model

Only 2 to 5 percent of the total areas of the parcels that are located outside of the area defined by the Railroad Valley Predictive Model have been surveyed for cultural resources. Most of the surveys conducted within these areas have been linear surveys for roads or seismic lines. Cultural sites were identified during most of those surveys.

Parcel: 039

Environmental Consequences of the Proposed Action on Cultural Resources

There would be no direct impacts from issuing new oil and gas leases because leasing does not directly authorize oil and gas exploration and development activities. Direct impacts from these activities would be analyzed under a separate site-specific environmental analysis.

4.4.3 Native American Religious Concerns

Affected Environment

Railroad Valley lies within the traditional territory of the Western Shoshone and possibly the Paiute Tribes. Sites and resources considered sacred or necessary to the continuation of tribal traditions include, but are not limited to: prehistoric and historic village sites, sources of water (hot and cold springs), pine nut gathering locations, sites of ceremony and prayer, archaeological sites, burial locations, “rock art” sites, medicinal/edible plant gathering locations, areas associated with creation stories, or any other tribally designated Traditional Cultural Property. Specific locations in Railroad Valley were not identified or shared. However, this does not mean they do not exist. Future Native American Consultations in the area may reveal such sites, activities, or resources.

The majority of lands within the proposed action area have not been analyzed for cultural resources or Native American Religious Concerns. Therefore, the BLM contacted the Ely Duckwater and Yomba Shoshone Tribes to identify areas of concern, mitigation measures, operating procedures or alternatives that may eliminate or reduce impacts to any existing tribal resources.

Environmental Consequences of the Proposed Action on Native American Religious Concerns

Although the act of selling oil and gas leases does not directly authorize exploration, development, or production, or any other related ground disturbance activities, there does exist the potential to impact Native American sites of a spiritual, cultural, or traditional nature. If a

lease is sold, the lessee retains irrevocable rights and can foreclose the authorized officer's use of some mitigation measures. For example, according to 43 CFR § 3101.1-2, once a lease is issued to its owner, that owner has the *"right to use as much of the lease lands as is necessary to explore for, drill for, mine, extract, remove and dispose of the leased resource in the leasehold"* subject to specific nondiscretionary statutes and lease stipulations. However, impacts to cultural sites can be minimized and/or mitigated when affected Tribes provide input and actively and fully participate in the decision making process.

While the majority of the parcels are located in Arch Zones 1-3, environmental impacts to cultural resources are expected to be minimal because exploration activity is expected to be minor and site specific NEPA analysis (including the development of COAs, BMPs, mitigation measures) would be applied to protect the resources.

4.4.4 Wildlife Resources

Affected Environment

Special Status Species

Special status species include species that are listed or proposed for listing as threatened or endangered (T&E) under the Endangered Species Act (ESA), species that are candidates for listing under the ESA, species that are listed by the State of Nevada, and/or species that are on Nevada BLM's list of Sensitive Species as of July 29, 2003. Sensitive Species are taxa that are not already included as BLM Special Status Species under (1) federally-listed, proposed, or candidate species; or (2) State of Nevada-listed species. BLM policy is to provide these species with the same level of protection as is provided for candidate species in BLM Manual 6840.06 C, that is to ensure that actions authorized, funded, or carried out do not contribute to the need for the species to become listed. The Sensitive Species designation is normally used for species that occur on BLM administered lands for which BLM has the capability to affect the conservation status of the species through management. The BLM Manual 6840.06 E provides factors by which a native species may be listed as "sensitive."

One federally listed species, the Railroad Valley springfish (*Crenichthys nevadae*), occurs near the project area. Populations of Railroad Valley springfish (listed as threatened) are located on private land at Lockes Ranch along U.S. Highway 6 and on public land at Reynolds Springs and North Spring outside of Lockes Wildlife Management Area (WMA). In addition, in 1978, the BLM and NDOW introduced a population of Railroad Valley springfish in Warm Spring (also known as Chimney Spring), within the Railroad Valley WMA.
While there is no critical habitat associated with this particular population, and the population is not part of recovery goals for the species, this introduced population, and for that matter any individual Railroad Valley springfish anywhere, is still protected under the federal Endangered Species Act. Hence, as an individual animal it is afforded all of the protections of the Act.
The *Railroad Valley Springfish Recovery Plan, 1997*, contains recommendations needed to improve and secure the species habitat. In addition, BLM Management for Railroad Valley springfish and its habitat is included in the 1990 *Railroad Valley Habitat Management Plan.*

Migratory Birds

"Migratory bird" includes any bird listed by the United States Fish & Wildlife Service (USFWS) in 50 CFR 10.13. All native birds found commonly in the United States, with the exception of native resident game birds, are protected under the Migratory Bird Treaty Act (MBTA) (16 United States Code 703711). The MBTA prohibits taking of migratory birds, their parts, nests, eggs, and nestlings. Executive Order 13186, signed January 10, 2001, directs federal agencies to protect migratory birds by integrating bird conservation principles, measures, and practices.

Additional direction is provided within the, Memorandum of Understanding (MOU) between the BLM and the USFWS dated January 17, 2001. This MOU strengthens migratory bird conservation through enhanced collaboration between the two agencies, in coordination with state, tribal, and local governments. The MOU identifies management practices that could impact populations of high priority migratory bird species including migratory bird nesting, migration, and overwintering habitats, and develops objectives and recommendations that would avoid or minimize these impacts. A variety of migratory birds use the habitat types within the proposed project area for breeding and foraging.

The area surrounding and including the proposed action area is in greasewood flats with patches of intermountain basin mixed salt desert scrub. These areas provide nesting and brood rearing habitat for a host of migratory birds. No ground disturbing or other disturbances during migratory bird nesting season would be allowed in nesting site. For more information about the MBTA, and how to avoid violations, contact the U.S. Fish and Wildlife Service regional office in Reno, NV (775) 861-6300.

Eagles

On July 9, 2007, the bald eagle was de-listed from the list of threatened and endangered species. BLM is coordinating with NDOW to ensure compliance with state regulations regarding the bald eagle. As of August 30, 2007, BLM policy is to consider the bald eagle as a BLM Sensitive Species. After de-listing, bald eagles will continue to be protected under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act. Both of these laws prohibit killing, selling or otherwise harming eagles, their nests, or their eggs. In May 2007, the U.S. Fish and Wildlife Service (Service) clarified its regulations implementing the BGEPA and published the National Bald Eagle Management Guidelines. The Service has established a permit program under the BGEPA that would authorize limited take of bald and golden eagles consistent with the purpose and goal of the BGEPA. The Service has also prepared a draft post-delisting bald eagle monitoring plan. These documents and more information about bald and golden eagle are available on the Service's website at http://www.fws.gov/migratorybirds/baldeagle.htm. Bald eagles have not been documented within the project area, however, the project area provides foraging habitat for Golden eagles.

Other Wildlife

BLM data indicates that pronghorn antelope occur in the project area. Mule deer range is identified to the northwest, in the Pancake Range, and to the east, in the Quinn Canyon Range. Bighorn sheep habitat is also identified in the Quinn Canyon Range. There is also the basic component of non-game species of lizards, birds, and rodents. These species are found throughout the project area.

Environmental Consequences of the Proposed Action on Wildlife Resources

Direct and indirect effects on specific wildlife species cannot be determined until site specific project proposals are analyzed at the APD stage of development. In general, mammals such as pronghorn antelope will avoid and move away from oil drilling activities. Oil drilling requires very little surface disturbance and is temporary in nature. Wildlife will move back into the area in a short time after reclamation.

Site-specific wildlife resource surveys, BMPs, COAs, and mitigation measures at the APD level environmental assessment and the temporary nature of oil exploration should effectively minimize adverse effects to wildlife. Additionally, the acreage of disturbance associated with oil exploration and production are expected to be minimal.

Construction activities have the potential to affect migratory birds and sensitive species that occur in the lease parcel areas. While little potential exists to effect the population of most bird species, ground clearing, or other habitat disturbance activities (such as road construction and drill pad construction) conducted during the migratory bird nesting season (roughly, March 1 through July 31) have the potential to destroy eggs and young of migratory birds, thereby violating the Migratory Bird Treaty Act.

Site specific COAs, BMPs, and mitigation measures have the potential of reducing the impacts of exploration and production activities on special status species and migratory birds. Site specific NEPA analysis would be implemented to avoid critical habitat for sensitive species (water sources, leks, nesting areas). Since oil exploration activities are expected to be minimal, impacts to migratory birds are expected to be insignificant.

4.4.5 Water Quality (Surface and Ground) and Quantity

Affected Environment

Hydrographic Basins

The proposed lease parcels are located in hydrographic region 10, Central Region. The majority of leases are within hydrographic sub-area 173B, the northern part of the Railroad Valley Basin. Additional leases are located within hydrographic sub-area 173A, the southern part of the Railroad Valley Basin. The following is a summary of the hydrographic Basins, perennial yields, and committed resources in the proposed lease area:

Sub Area	Basin Name	AREA Square Miles	Perennial Yield AF/YR	Committed Resources (01/2011)	Designated (Yes/No)
173B	Railroad Valley Northern Part	2,149	75,000	26,456	No
173A	Railroad Valley Southern Part	603	2,800	3,931	No

Table 3. Hydrographic sub-areas that proposed leases are located in.

Designated groundwater basins are basins where permitted ground water rights approach or exceed the estimated average annual recharge and the water resources are being depleted or require additional administration. The committed resource is the total volume of permitted, certificated and vested ground-water rights which are recognized by the State Engineer and can be withdrawn in a groundwater basin in any given year.

Physiography

Railroad Valley is a closed basin extending approximately 110 miles between north-south-oriented ranges in the Basin and Range physiographic province, and varies in width from 10 to 20 miles. Mountain ranges enclosing the basin include the White Pine, Grant and Quinn Canyon ranges on the east and Pancake range to the west. Altitudes range from over 11,000 feet in the Grant Range to 4,706 on the large playa located in the northern part of Railroad Valley (173B). Numerous small ephemeral streams drain the eastern ranges, but stream flow rarely reaches the valley floor. There are numerous springs surrounding the valley floor.

Groundwater Occurrence and Movement

Groundwater in Railroad Valley occurs in both the valley fill alluvium and underlying consolidated rocks. Most of the economically available groundwater in Railroad Valley is stored in valley fill alluvial deposits. The valley fill covers approximately 1,170 square miles in northern Railroad Valley, and approximately 400 square miles in southern Railroad Valley. Logs of oil exploration wells in central sections of Railroad Valley have depth to bedrock from 4,800 feet to 9,200 feet. The consolidated-rock aquifers consist of volcanic and carbonate rocks. Carbonates are exposed on the east side of Railroad Valley and underlie the valley fill at depth.

Groundwater flow in the carbonate rock province of the eastern Great Basin is conceptualized as having two components: a local component comprising flow from mountain ranges to adjacent valleys, and a regional component, where groundwater is transmitted through carbonate rocks beneath mountain ranges and valleys to discharge areas at distant springs or terminal sinks (Prudic *et al.*, 1993). Railroad Valley is part of a regional groundwater flow system that encompasses 4,130 square miles and includes northern Railroad Valley, sub-area 173B, Hot Creek Valley, sub-area 156, Little Fish Lake Valley, sub-area 150, Little Smoky Valley, sub-area 155C and Little Fish Lake Valley, sub-area 150 (Bugo, 2004). Van Denburgh and Rush, 1974, calculated the water budget for Railroad Valley. Based on the estimated inflow from Little Smoky and Hot Creek Valleys (Rush, Everett, 1966) and the number of springs, they concluded that Railroad Valley is the terminal sink for inter-valley groundwater flows by way of consolidated rocks. The groundwater in the Railroad Valley regional system discharges to extensive springs and evapotranspiration areas in the central and northern Railroad Valley.

Groundwater Recharge from Precipitation

Most of the precipitation occurs during either a winter rainy season or during late summer months. A high pressure condition predominates during the winter months resulting in storm systems moving from west-to-east. During the summer months, low pressure conditions

predominate, resulting in southwest-to-northeast precipitation patterns. Summer precipitation events tend to produce widely scattered showers of high intensity and short duration. The average annual precipitation in the area is about 5 inches at the lower elevations and more than 20 inches in the higher elevations.

Groundwater recharge is believed to occur principally in the higher mountain ranges. The rain and snowmelt flows overland into channels, where seepage losses occur, and into fractures in the rock. Most of this water is lost. On an annual basis, as much as 90 percent of the total annual precipitation is lost through evaporation and transpiration; only an estimated 5 percent infiltrates to recharge the aquifers. Most of the recharge occurs at elevations above 6,000 feet.

Groundwater Quality

Groundwater generally contains less than 1,000 mg/L dissolved solids except in natural-discharge and geothermal areas. The dissolved solids in valley-fill aquifers generally are dominated by sodium, calcium and bicarbonate. In northern Railroad Valley calcium generally exceeds sodium. In southern Railroad Valley, sodium dominates. Sodium, chloride and sulfate dominate waters concentrated by evaporation. Water beneath the playa in northern Railroad Valley is saline.

Environmental Consequences of the Proposed Action on Water Quality (Surface and Ground) and Quantity

Indirect impacts to water quantity from oil and gas development would occur as a result of the following: 1) the extraction and disposal of any produced ground water, and 2) any surface disturbing activities which have the potential to introduce sediment to waterways.

If exploration activities were authorized, they would likely have minimum impact because the volumes of fluid concerned would be minimal. Development phase activities would have a somewhat greater impact, primarily related to the disposal of fluids produced during reservoir testing. Impacts from these two phases would be of short duration and limited to a small area. Oil and gas production would have minimal potential to impact water resources because produced water is re-injected into the same horizon as production.

4.4.6 Waste, Hazardous and Solid

Affected Environment

Oil and gas development, which can include exploration drilling, extraction, production facilities, pipeline transport, tanker loading and unloading, affect the environment through production of waste fluids, emissions, and site impacts resulting from field development and related infrastructure. Hazards that may be encountered include the following: oil spills, produced waters, drill cuttings and fluids, and hazardous materials.

Environmental Consequences of the Proposed Action on Waste, Hazardous and Solid

Indirect impacts would include drilling fluid or hydrocarbon spills, leakage from improperly constructed sump ponds or waste water collection systems, improperly handled brine water from drilling and accumulations of solid waste, which could impact water quality or contaminate soils. Hydrocarbon spills could include hydraulic fluid, gasoline, oil, or grease from vehicles, generators and exploration drill rigs. Brine water from exploration drilling, if improperly disposed, could raise the pH and/or salinity of existing surface waters to unacceptable levels. Generations of nonhazardous solid waste could include small amounts of trash, drill cuttings, wastewater, bentonite and cement generated during drilling operations.

4.4.7 Noxious Weeds and Invasive, Nonnative Species

Affected Environment

Fifty-two species of invasive plants and noxious weeds are known to occur in State of Nevada. Of these, four species, Russian Knapweed, Hoary Cress, Tamarisk and perennial Pepperweed are known to occur in Railroad Valley.

The inventory process is on-going to detect small, invasive populations as they begin to move into the district. Once a population is found, the BLM coordinates with various agencies, lease operators, and land users to implement treatment to remove or control the population.

Most of the noxious weeds exist mainly along the shoulders of County roads and private roads within the project area.

Environmental Consequences of the Proposed Action on Noxious Weeds and Invasive, Nonnative Species

The proposed action would authorize leasing, which in turn, through site-specific EAs would authorize roads and drill pad construction. This potential disturbance would be conducive to new infestations and have the potential to increase and spread existing populations of invasive plants, noxious weeds and pests within the assessment area. Oil and gas exploration and development may include staging, construction, maintenance, and the use of motorized vehicles for transportation of personnel and equipment, which may increase the potential for new and expanded infestations. New, continued, and enlarged infestations of invasive plants, noxious weeds, and pests that may occur as a result of oil and gas disturbance would be minimized by implementing COA's, BMP's, and mitigation measures.

4.4.8 Geology and Minerals
Affected Environment

Many of the rock formations found within the Assessment Area are indicative of a continental plate margin converging with an oceanic plate. A combination of depositional and orogenic

(mountain building) events along this margin have resulted in assessment area being generally prospective for hydrocarbon production.

The development of the Antler Orogeny in the Late Devonian to Early Mississippian allowed the deposition of the organic-rich source rocks necessary for hydrocarbon development. Late Cretaceous Sevier Orogeny created stacked set of thrust sheets which buried the mid-Paleozoic organic sediments beneath a thickened crust where they could pass into the oil and gas-generating temperature and pressure windows. The Sevier Orogeny in Late Cretaceous also placed locally prospective reservoir rocks above the Mississippian source rocks in potential oil and gas traps. In geologic time following the Sevier Orogeny, the assessment area experienced varying amounts of volcanism and the development of the present-day basin and range topography. The late Tertiary volcanic rocks constitute the main reservoir of the oil fields in the Railroad Valley petroleum province.

Railroad Valley is located within the geological province known as Basin and Range province, a series of north-south oriented mountain ranges separated by broad valleys. The Valley is bounded on the east by the Grant Range and by the Pancake Range to the west. A variety of rocks can be found within the area including Paleozoic carbonates and clastic rocks intruded by Tertiary volcanic rocks in the Grant Range and Pancake Range. The sediment accumulation in Railroad Valley can reach thousands of feet and is comprised of Tertiary and Pleistocene fluvial, lacustrine, and eroded volcanic rocks.

The oil fields in Railroad Valley produce from Tertiary volcanic rocks of the Garrett Ranch Group.

Environmental Consequences of the Proposed Action on Geology and Minerals

The potential exists that oil and gas interests may overlap with those of mineral exploration. However, the majority of acres that may be used for oil and gas exploration and production are usually reclaimed within ten years. In most instances, oil and gas exploration and development are short term (less than one year) endeavors and hence would not appreciably affect mineral exploration and development. Agreements between oil and gas and mineral operators would help to mitigate those acres that would be used for oil and gas production on a more long-term basis.

Oil and gas exploration and development activities could require up to 2.5 acres in gravel pit expansion. This small acreage would not greatly increase the amount of gravel pits, nor would it

burden the communities that utilize gravel.

In Nevada, oil and gas wells are typically associated with elevated water temperatures (160°F), and conflicts may arise between geothermal and oil and gas exploration development. These potential impacts would be mitigated through negotiations between operators.

4.4.9 Floodplains

Affected Environment

Parcels 006, 007, 008, 011, 013, 014, 017, 018, 019, 022-025, 029 are located within the 100-year floodplain of Railroad Valley. Summer thunderstorms could develop over the Grants and Quinn mountains to the east and therefore could bring minor ponding to these parcels.

All parcels would be evaluated in more detail once an APD has been received and stipulations may be developed to mitigate any potential flooding.

Environmental Consequences of the Proposed Action on Floodplains

Potential impacts of lease development may include alteration of natural floodplain areas by surface disturbance or placement of oil facilities. New access roads may be constructed which cross floodplains. Specific mitigation measures to avoid potential adverse impacts to floodplains would be taken into consideration during the APD stage.

4.4.10 Soils

Affected Environment

Based on soil surveys, the area of the lease parcels can be divided into five different types of landscapes with its associated soil types: playa, intermontane basin, fan piedmont, hills, and foothills.

The playa in Railroad Valley contains silty clay soils. Slopes in the area are generally 0 to 1 percent with very high runoff potential. The water erodibility is slight and wind erodibility is moderate.

The soils in the intermontane basin landscape are well drained and contain loam, sandy loam, very gravely loamy sand, silt loam, and fine sand. Slopes in this zone range from 0 to 4 percent. The runoff is usually very low, water erodibility is slight, and wind erodibility is slight to moderate.

The fan piedmont landscape can contain gravely sandy loam, gravely loam, fine sandy loam, very stony loamy sand, and very cobbly sandy loam. The slopes generally range from 2 to 8 percent with medium runoff. The soils tend to be well drained.

The group of parcels in the hill type of landscape contains very cobbly sandy loam, very gravely sandy loam, and very stony loamy fine sand. The slopes generally can be as high as 50 percent and a low as 8 percent. The wind and water erodibility are slight.

The foothills landscape contains very gravelly fine sandy loam, very stony sandy loam, very gravelly loamy sand, and very gravelly sandy loam on 2-50 percent slopes. Water erodibility is slight to moderate and wind erodibility is slight in these types of soils. These soils are typically well drained soils.

Environmental Consequences of the Proposed Action on Soils

Road and drill pad building and cross country travel would impact soil surfaces. These impacts include erosion of soils, disturbance to microbiotic crusts, and soil compaction. The amount of acreage that might be disturbed over a ten year period by oil and gas exploration and production is low; therefore, the impacts to soil would be minimal.

4.4.11 Vegetation

Affected Environment:

The vegetation cover in Railroad Valley consists of Inter-Mountain Basins Greasewood Flats and Inter-Mountain Basin Mixed Salt Desert Scrub. The playa in Railroad Valley is barren to sparsely vegetated with small saltgrass stands in depressions (Figure 3).

The margins of the playa are covered by Inter-Mountain Basins Greasewood Flats. This plant community typically occurs on floodplains and closed-basin bottomlands adjacent to playas. Substrates are often saline and calcareous, medium-to fine-textured, alkaline soils, but include some coarser-textured soils. Sites typically have a shallow water table and flood intermittently, but remain dry for most growing seasons. The plant community is characterized by black greasewood, basin wildrye, inland saltgrass, and alkali sacaton.

The Inter-Mountain Basins Mixed Salt Desert Scrub is an extensive ecological system which includes open-canopied shrublands of typically saline basins, alluvial slopes and plains. The substrates are often saline and calcareous, medium-to fine-textured, alkaline soils, but include some coarser-textured soils. The vegetation is characterized by a typically open to moderately dense shrubland composed of shadscale, fourwing saltbrush, big sagebrush, and rabbitbrush.

Environmental Consequences of the Proposed Action on Vegetation

It is highly unlikely that during the timeframe of oil and gas exploration, development, and production, a great number of acres become disturbed by seismic lines, exploration wells, road construction, and gravel pit expansion. During the interim and final reclamation, soils require time to stabilize and the vegetation to become established. This could potentially leave exposed soils for two to three years or longer depending on the response of reclamation efforts.

The majority of the exploration is likely to occur in Saltbush Shrub or sagebrush type vegetation areas, rather than pinion-juniper woodlands. Removal of vegetation would increase the amount of bare ground. This in turn could increase wind and water erosion, increase the potential for invasion by nonnative and noxious species, reduce the capability for water to infiltrate the ground, and increase runoff and sediment loading.

Impacts to vegetation from exploration/development, are expected to be minor, relatively short term, and localized. In addition, site-specific mitigation measures, BMPs, and COAs would be implemented to reduce impacts.

4.4.12 Range Resources

Affected Environment

The lease sale parcels are contained within 3 grazing allotments, Montezuma, Sheep Mountain, and Monte Cristo (Figure 4). The allotments are generally run as a yearlong, cow-calf operation. Most of the grazing permittees follow a deferred-use rotation system in which one or more pastures within the allotment are rested (not grazed) to allow the vegetation to recover. Range improvement projects such as windmills, water delivery systems (pipelines, storage tanks, and water troughs), earthen reservoirs, fences, and vegetation control projects are located within the assessment area.

Environmental Consequences of the Proposed Action on Range Resources

Oil exploration activities will disturb less than 10 acres of potential forage. The removal of vegetation would temporarily decrease the amount of available forage for wildlife, wild horses, burros and livestock. This might create a very slight reduction in AUMs. Exploration activities could also have a temporary effect on grazing patterns shifting and/or intensifying livestock grazing in other areas. All impacts are expected to be short term and very small.

If exploration is proposed on any of the leases, the effects of exploration and production would be analyzed in a site-specific EA and mitigation measures developed at that time.

The impacts of the proposed action on range resources are expected to be minimal due to the relatively small amount of disturbance, limited duration, concurrent reclamation, and site-specific mitigation.

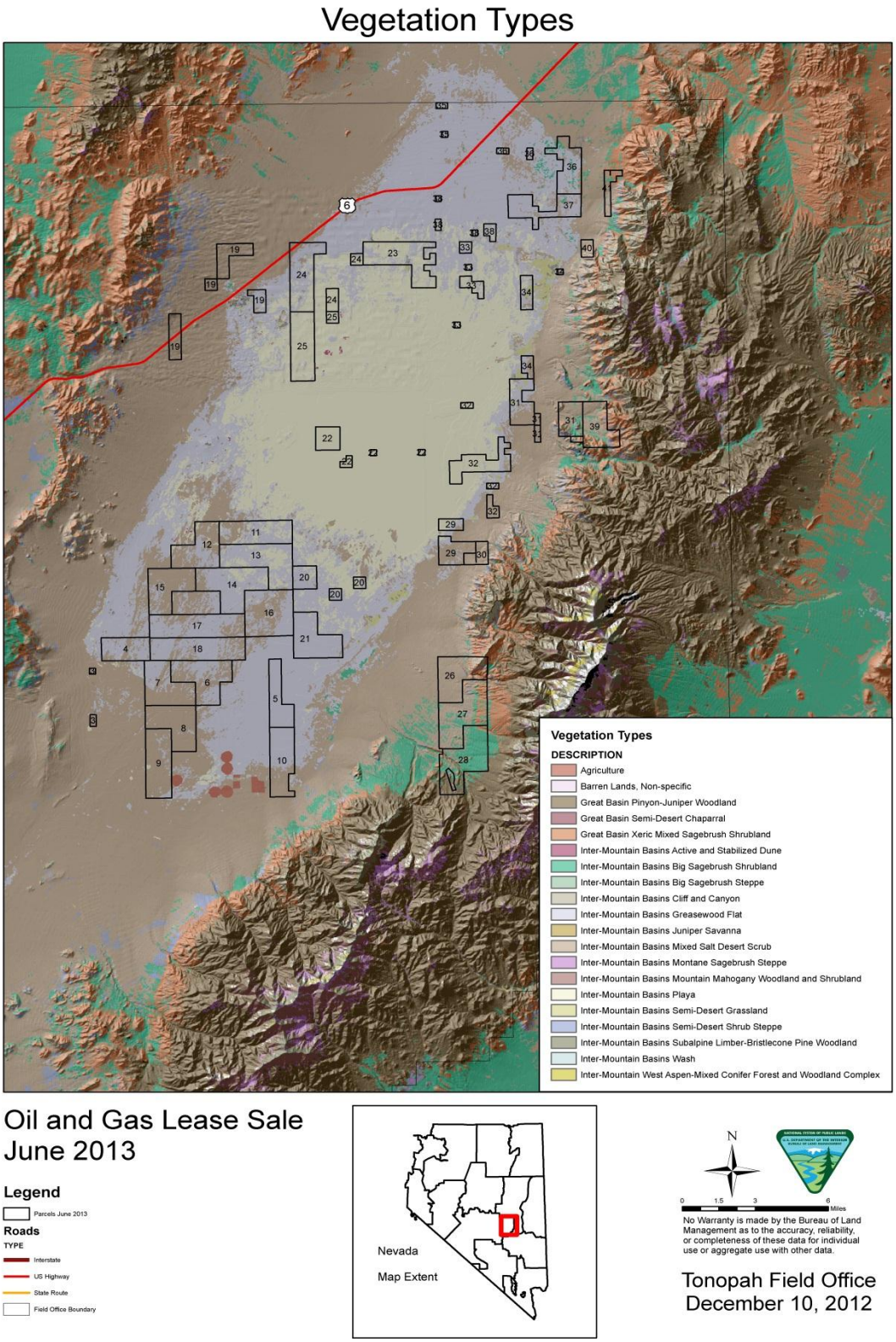

Figure 3. Vegetation types in Railroad.

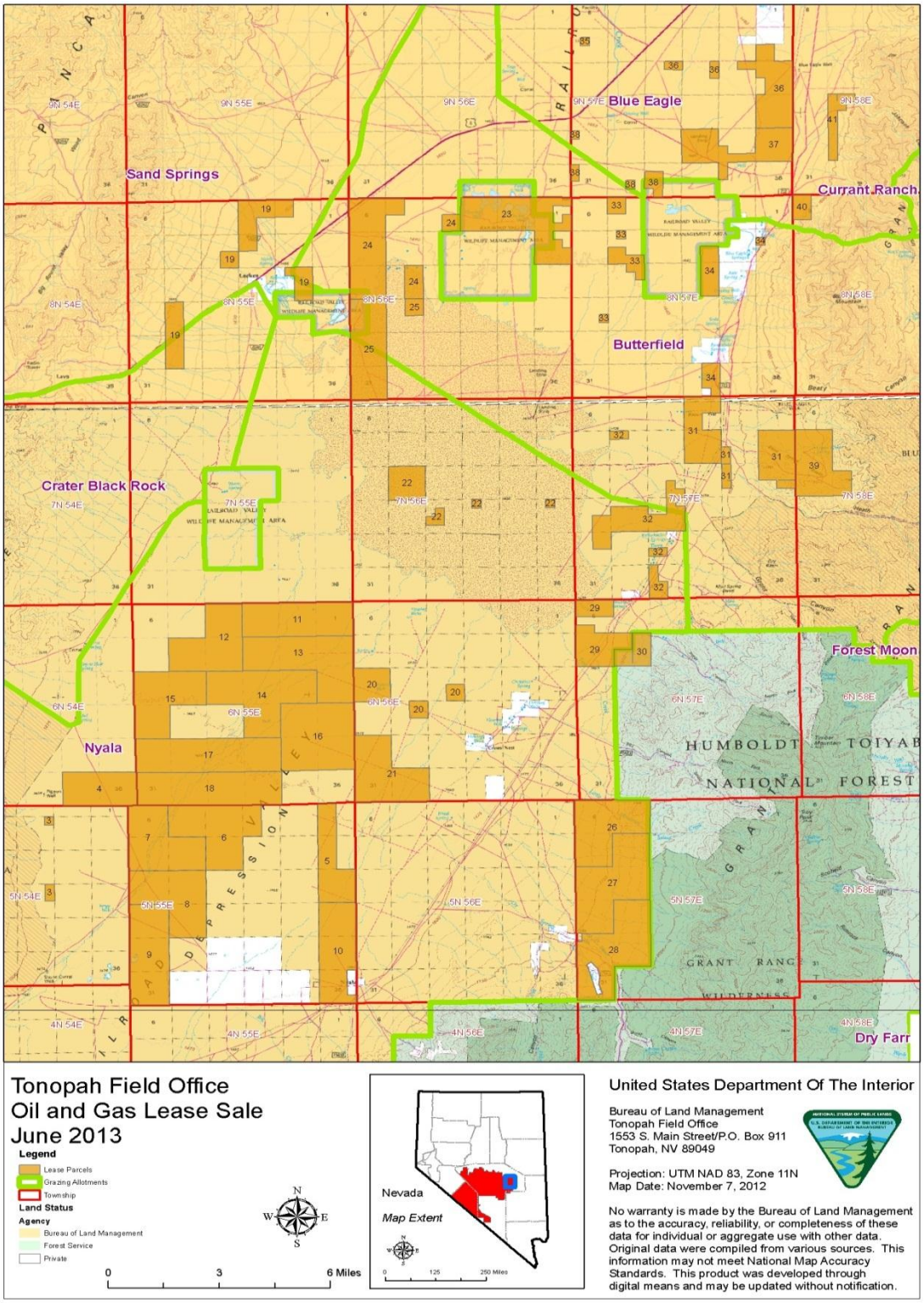

Figure 4. Location of Railroad Valley allotment boundaries.

4.4.13 Land and Realty

All of the proposed lease parcels are on public lands with federally controlled surface and subsurface mineral rights. Many of the parcels would require a right-of-way (ROW) in order to access the lease parcels. Some parcels include pre-existing land use authorizations such as grants, leases, permits, and withdrawals. Table 4 is a summary of the land use authorizations in the assessment area:

ROW Case File Number	ROW Holder	ROW Information	Affected Lease Parcel
N-61240	McFarland Energy, Inc.	24-foot wide access road in section 7.	Parcel 007
N-82795	Energy Operations NV LP	24-foot wide access road in section 8.	Parcel 007
Nye County Road #447			
N-87295	D. Williams	24-foot wide access road in section 19.	Parcel 009
N-63059	Nevada Bell	20-foot wide for an underground fiber optic line in section 36.	Parcel 010
N-05638	Mt. Wheeler Power	24-foot wide power distribution line in section 36.	Parcel 010
N-32227	Lucas Leavitt	24-foot water pipeline for agricultural purposes in section 36.	Parcel 010
	Range improvement #4297	Water way in section 36.	Parcel 010
N-57783	Banyon Oil & Exploration Co.	30-foot wide access road in sections 25-27, 33-34.	Parcel 016
T. 8 N., R. 55 E.			
NVCC 19823	Nevada Department of Transportation	400-foot wide highway in sections 20 and 29.	Parcel 019
NVCC 19974	Nevada Department of Transportation	NDOT Mineral Material Site – 160 acres in section 20.	Parcel 019
	Range improvement fence #4497	Section 14	Parcel 019

ROW Case File Number	ROW Holder	ROW Information	Affected Lease Parcel
NVCC 19923	Nevada Department of Transportation	400-foot wide highway in section 6.	Parcel 024
N-20299	Community Pit	Section 6, Lot 4.	Parcel 024
	Public Land Order 4371	Section 19 for Railroad Valley Wildlife Management Area.	Parcel 025
N-76913	Norman Sharp	"Claimed" RS2339 ditch of variable width for water right access in sections 5 and 6.	Parcel 026
	Range improvement #4298 for water	Sections 5 and 6	
N-76910	Norman Sharp	"Claimed" RS2339 ditch of variable width for water right access in section 30.	Parcel 026
	Homestead Entry Patents	Section 30 and 31	Parcel 028
N-05638	Mt. Wheeler Power Co.	24-foot wide power distribution line in sections 7-8.	Parcel 029
N-00134	Nevada Bell	20-foot wide underground telephone line in sections 3, 10, 21, and 33.	Parcel 031
N-54802	Makoil, Inc.	30-foot wide access road in section 21.	Parcel 032
N-55596	Makoil, Inc.	30-foot wide access road in section 21.	Parcel 032
N-05638	Mt. Wheeler Power Co.	30-foot wide power distribution line.	Parcel 032
	Range improvement fence #3520	Section 21	Parcel 032
N-13152	Recreation & Public Purpose Lease – Currant	Section 6, Lot 4	Parcel 035

ROW Case File Number	ROW Holder	ROW Information	Affected Lease Parcel
	Creek Maintenance Station – Nye County		
N-52991	JR Bacon Drilling	30-foot wide access road in section 6.	Parcel 035
N-61263	Makoil, Inc. Case closed – not removed from MTP	25-foot wide access road in section 6.	Parcel 035
N-47879	SBC/Nevada Bell	10-foot underground telephone line in section 12.	Parcel 036

Table 4. A summary of the land use authorizations in the assessment area.

Many range improvements that include pipelines, fencing, corrals, cattle guards, and other range improvement facilities exist within the sale parcel areas. Federally-owned monitoring wells occur randomly throughout the sale area.

Additionally, grants, leases, and permits may be authorized prior to any proposals for exploration by an oil and gas lessee. In both instances, the holder of land use authorization would have a valid existing right to the authorized use of public lands within the lease.

Environmental Consequences of the Proposed Action on Land and Realty

Leasing creates a valid existing right, which could conflict with other existing or future land use authorizations. These conflicts would be mitigated through agreements between relevant operators.

Applications for ROW's may be required for roads for oil and gas exploration and production activities. These off lease ROW's would be non-exclusive where possible, that is, they can be used by the general public for other purposes such as access to public lands and would be subject to the appropriate site-specific NEPA analysis.

Impacts to existing ROW's may occur as a result of disturbance activities such as road construction. These impacts may cause temporary disruptions to ROW holders, but the Federal Land Policy and Management Act (FLPMA) requires that prior existing rights must be recognized. Any impacts to existing ROW's such as physical disturbances or disruptions in use may have to be mitigated by the lessee.

4.4.14 Visual Resources

Affected Environment

The proposed lease parcels are within VRM Class IV. The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Environmental Consequences of the Proposed Action on Visual Resources

Direct impacts to the landform, vegetation and structural features of the characteristic landscape could occur during the exploration phase; however, these effects would usually be of short duration and localized in a small area. Modern seismic survey are generally non-invasive and produce very little surface disturbance that may not be identifiable within months of survey. Drilling would temporarily impact the landscape by introducing new line, color, form and texture elements into the landscape. Brightly colored drill rigs and supporting facilities would be visible to visitors. Disturbances to vegetation from drilling could be seen for longer periods of time.

If a well drilled on one of the lease parcels produced economic amounts of oil, the construction of roads, drill pads, pipelines and power lines would result in long-term modifications to the line, form, color and texture of the characteristic landscape. Roads, drill pads and pipelines create strong horizontal linear contrasts. Vegetation and soil removal create color, textural and linear contrasts with adjacent areas that could be highly visible long after the drilling and development facilities were removed. While constructed features would have strong geometric and linear shapes and solid colors, small amounts of adjacent vegetation would obscure most of the features because of the typically flat character of the landscape. BMP's, mitigating measures, and SOP's would minimize the visual impact of many of the remaining contrasts.

4.4.15 Recreation

Affected Environment

The proposed lease parcels are all within dispersed recreation areas subject to public use. Dispersed recreation areas are areas that are used by recreationists as they desire. Activities from sightseeing, pleasure driving, rock collecting, photography, hunting four-wheeling, hiking, and bird watching occur in dispersed recreation areas. Railroad Valley is flanked on the east by Humboldt National Forest and Grant Range and to the west by the Pancake Mountains. These areas are infrequently used by the public for camping, hunting, hiking, and other outdoor recreation activities.

Environmental Consequences of the Proposed Action on Recreation

During the exploration phase, survey and drilling crews are likely to use available access roads

and trails in the area that are also used for recreation access. The survey activities conducted during the exploration phase are likely to minimally impact recreation, if at all, due to the short duration, small crew size, and temporal nature of the surveys and drilling of wells as well as the dispersed nature of recreation activities in these areas.
Exploration of the leases would include construction activities. At this time, access roads and well pads are constructed. Increased truck traffic during this phase could affect recreation due to increased noise and dust levels and could cause temporary delays or closures on access roads. Construction sites are likely to have limited access to the public which could, in turn, slightly decrease access to the area for recreation.

The production stage includes operation and maintenance of the constructed facilities. These activities require a small number of employees who would utilize access roads in the area but are not likely to limit the recreational use of these roads. Oil and gas production facilities are likely to have limited access to the public; however, improved access to the area for recreation may be available because of the maintained access road to the production facility.

4.4.16 Socioeconomics

Affected Environment

The proposed lease parcels are within the northeast portion of Nye County. The primary economic activities that contribute to the economic base for lands within the assessment area are mining, transportation, agriculture, and recreation.

Nye County is the third largest county in the United States and totals 18,064 square miles. It is located in the south-central portion of the State of Nevada. Tonopah is the county seat and is located 239 miles southeast of Reno and 207 miles northwest of Las Vegas on US Highway 95, US Highway 6, and State Route 376.

Nye County has a population of nearly 40,000 and offers a rural lifestyle with a population density of 2.2 persons per square mile. Mining, service and government represent the largest economic sectors in the county. Industry in Nye County is supported by strong transportation links to California (Nye County borders California on the south). Nye County is home to numerous mining ghost towns and the county hosts annual professional off-road competitions.

The total population of Nye County in 2000 was 32,485, which represents an increase of 83 percent since the 1990 census (Nevada State Demographer 2006). The fastest growing age group in the county is the group between 70 to 74 years of age (U.S. Census Bureau 2006b). Projections indicate that the county would grow to 40,334 persons by 2006 (Nevada State Demographer 2006). Between 1970 and 2000, Nye County's population grew at a faster rate than both the State of Nevada and the nation (U .S. Census Bureau 2006b). The majority of the population is white (89 percent) with about ten percent of Hispanic origin.

The majority of Nye County residents (60 percent) earn less than $30,000 annually, with approximately one percent earning more than $100,000 annually (U.S. Census Bureau 2006c). Per capita annual income is approximately $18,000 (U.S. Census 2006c). Average earnings per

job in the county are lower than the State of Nevada and the nation (www.detr.state.nv.us/cgildataanalysis 2006).

Environmental Consequences of the Proposed Action on Socioeconomics

The only direct effect of issuing new oil and gas leases on socioeconomics within the assessment area would be the generation of revenue from the sale of the leases as the State of Nevada retains 50 percent of the proceeds from lease sales.

Subsequent oil and gas exploration, development, and production could create impacts to the county economy in terms of additional jobs, income, and tax revenues.

During the exploration phase, oil and gas companies typically provide in-house scientists and technicians to do the majority of this work. After initial surveys have been completed, road building and drill pad construction could occur as a result of oil and gas exploration and development activities. Road and drill pad construction could be contracted to local contractors. Wells would typically be drilled over a period of time and not at the same time. The exploration crews, ranging from 20 to 30 people, would spend portion of their salary in the local community for the duration of the project (four to eight weeks). The indirect impacts to socioeconomics within the assessment area from the proposed action based on above scenario would be minimal.

During development and production phase, the potential for socioeconomic impacts within the assessment area would be greater. More permanent roads and drill pads would be constructed, along with associated support facilities and transmission lines. Typically, the majority of this work is supplied by local contractors. Additionally, local businesses may realize increased revenue from the purchase of supplies, meals, rooms, etc. Local trucking and delivery companies may also benefit economically by transporting supplies, building materials, and oil products. Oil production from federal lands is subject to a 12.5 percent royalty payment to the federal government. Fifty percent of that amount is provided to the state government which then provides a portion back to the counties. Taxes are paid in a variety of forms including income and property taxes by both oil production operators and their employees.

5.0 CUMULATIVE IMPACTS ANALYSIS

The proposed action has been examined for cumulative effects to the project area and the surroundings. Cumulative impacts are those effects on resources within an area or region caused by a combination of past, present, and reasonable foreseeable future actions (RFFA's). These impacts may be individually minor but added together over time may become significant (40 CFR 1508.7).

The cumulative effect study area (CESA) for this environmental assessment encompasses all parcels in this lease sale (Figure 5). Oil and gas leases are leased for a 10-year time period; therefore, the same timeframe was selected for the cumulative effect study analysis.

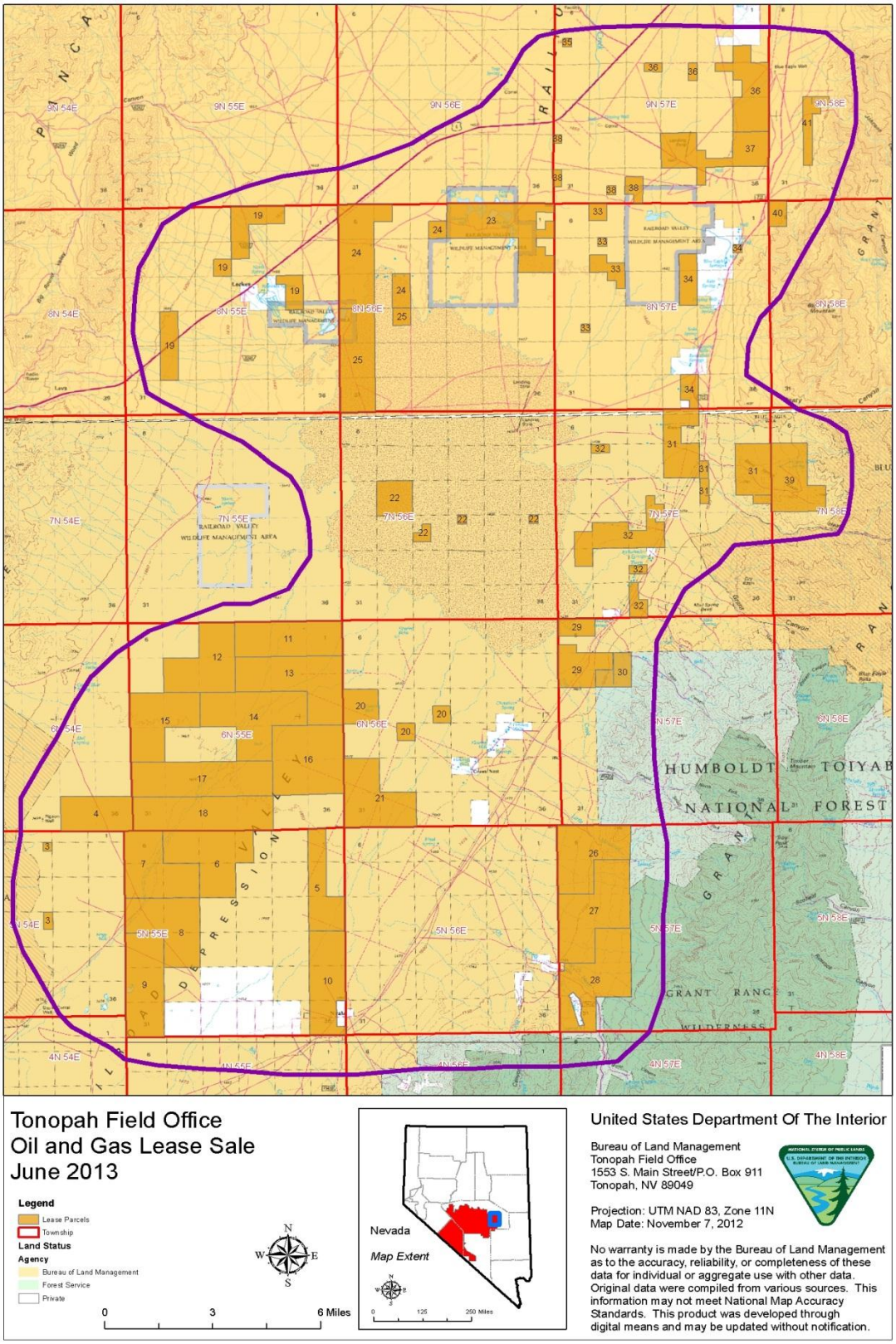

Figure 5. Cumulative Effect Study Area Map.

5.1. Past and Present Actions

Nye County was the location of the first producing oil well in Nevada. Shell's Eagle Springs # 1-35 well was discovered in 1954. The Eagle Springs discovery well attracted major oil companies to explore several of eastern Nevada's valleys which produced encouraging shows but no discoveries. The Trap Springs field was discovered in 1976 by Northwest Exploration. The most prolific oil field in Nevada was discovered in 1983, when Northwest Exploration Grant Canyon No. 1 was drilled and completed. Grant Canyon No. 1 was the most prolific onshore oil well in the continental United States, flowing up to 4,300 barrels of oil per day. The most recent oil field discovered was Sans Spring, in 1993.

Land-use authorization; like new road, powerline and pipeline ROW's and renewal of existing ROW's associated with oil and gas production and grazing can be expected in the future.

There are 8 producing oil fields in the assessment area, all in Railroad Valley. These include Trap Springs, Munson Ranch, Eagle Springs, Grant Canyon, Kate Spring, Ghost Ranch, Bacon Flat, and Sans Spring.

Historical lease sales have included hundreds of parcels in the CESA where expressions of interest were submitted by prospective lessees. Between 20 and 50 percent of the parcels have typically been sold during and the day after the lease sales. There are currently 91 oil and gas leases in the CESA; however, only 32 are producing oil. Since 2001, there have been 14 oil and gas well permits issued in the CESA. TFO typically authorizes fewer than 4 APD's per year and 1-2 geophysical exploration permits every decade.

The oil and gas program consist mainly of speculative leasing and the drilling of wildcat wells in and around existing oil fields in the Railroad Valley. Three wildcat wells have been drilled since 2009. All have been plugged and abandoned. The total hydrocarbon production in 2009 amounted to 366,868 barrels of oil. An APD has been issued to Kelpetro operating (Nevada) Inc. in 2012. The operator did not drill the permitted oil well and the lease has expired. An APD was approved for a re-entering and deepening of an existing oil well to Makoil in 2012. The well has not been drilled due to non-availability of a drill rig.

Livestock grazing has been authorized in the past and is currently authorized. In the CESA there are approximately 342,060 acres of land under 4 grazing allotments.

5.2. Reasonable Foreseeable Future Actions (RFFA's)

The proposed action does not include exploration, development, production, or final reclamation of oil and gas resources; however, authorization of oil and gas leasing does convey a right to subsequent exploration and production activities. These later activities are associated with oil and gas leasing; therefore, they would be analyzed as part of the proposed action.

As noted in the Draft Tonopah Resource Management Plan and Environmental Impact Statement (June, 1993), the extremely complex geologic structure of the area has limited the success rate of

wells to approximately 28 percent. Within the defined oil fields the success rate is approximately 60 percent. Other than mineral exploration and development oil and gas leasing, exploration, development, and production from any future drilling programs and the continuation of highly dispersed recreation and grazing, there are no future actions anticipated in this area. Reasonable Foreseeable Future Actions resulting from the proposed and similar future actions include; yearly competitive oil and gas lease sales; exploration activities that might lead to development and production; grazing, dispersed recreation, and associated land-use authorizations.

5.3 Cumulative Impacts from Past, Present, and Reasonably Foreseeable Future Actions

Within the past 60 years, approximately 232 oil exploration and production wells have been drilled in the Tonopah Field Office portion of the Railroad Valley. Majority of the oil fields are located south of Highway 6 along the road leading to the Nyala Ranch. Trap Springs and Munson Ranch fields are located north of Highway 6. Exploration activities within the area generally focus on oil and not natural gas.

The RMP projections for oil and gas exploration and development in the planning area (see p. 6 of this EA) appear to have been somewhat overestimated; however, modest amounts of oil and gas exploration are expected to continue in Railroad Valley over the next ten years. A geophysical survey may be conducted in Railroad Valley prior to any exploratory drilling. Surface disturbance associated with geophysical surveys are usually minimal. An APD may then be submitted for a wildcat well in the CESA, or a production well within an existing field. A site specific NEPA document would be prepared prior to approval of any application to conduct surface disturbing activities.

There is a small chance that a new oil field will be discovered within the next 10 years. The most recently discovered new oil field, Sans Spring, was discovered in 1993. If another oil field were discovered, there would, in all likelihood, be additional disturbance of previously undisturbed lands. An additional 5 to 10 wells may be drilled in the vicinity of any new discovery and up to 30 acres of disturbance might be expected within the CESA boundary. The surface disturbance associated with a producing well would probably remain for the entire production life of the well. Surface disturbance associated with drilling a dry well would be reclaimed within a year after the well was plugged and abandoned.

Development wells include step-out or field extension wells, enhanced oil recovery wells, or other infield wells. Even though the drilling of development wells would be adjacent to or actually within areas of current production, it may require disturbance on previously undisturbed lands.

Based on past actions there will be approximately 15 oil and gas wells permitted by the TFO within the next 10 years. Approximately 60% of the wells projected to be drilled would be development wells (as opposed to wildcat exploratory wells). An estimated 10-20% of the development wells would produce economic quantities of oil, while the remainder would be unsuccessful and would be plugged and abandoned upon completion of drilling. The remaining

40% of wells expected to be drilled would be wildcat wells – all are expected to be dry and would be plugged and abandoned, with reclamation being completed within one year of being abandoned.

There may be up to 100 cattle grazing in the CESA, depending upon the time of year. Nearly all of the cattle are concentrated around springs on private property with up to a couple dozen cattle grazing on public land administered by the BLM. The impact of cattle grazing part-time in the area is negligible.

Because of the general lack of water in the valley wildlife is scarce. A few antelope and smaller species like rabbits, ground squirrels, lizards, snakes, and birds can be found. On average there is sufficient precipitation to flood the playa once every decade. Snowy plover and waterfowl have been reported on the playa when it was flooded.

5.3.1. Cumulative Impacts on Air Quality

Past, continued, proposed and foreseeable road, power line, and pipeline construction, minerals exploration and recreation all create air quality impacts. Increased volumes of carbon dioxide, carbon monoxide, and particulates have been and would be caused by vehicle exhaust, disturbing the soil cover from additional travel on existing dirt roads and the construction of new access roads and well pads, and additional drilling.

Past and foreseeable geophysical exploration have in the past and would in the foreseeable future cause very little impact to air quality because the exploration equipment would be in the area for a very short time (typically less than a week) and little or no additional surface disturbance would be created to disturb the soil.

Activities associated with drilling wells typically last less than a month and the potential to increase particulate matter from multiple trips is mitigated by placing gravel on the access roads and protecting the soil. These localized, temporary impacts are not expected to significantly affect air quality in the area or exceed air quality standards.

5.3.2. Cumulative Impacts on Cultural Resources

Past impacts to cultural resources have occurred from unauthorized collection and excavation as well as mining, grazing, off-highway vehicle use, roads and other developments. Passage of the National Historic Preservation Act of 1966 and other laws have greatly reduced impacts to cultural resources from resource development and other activities on public lands. Presently, impacts to cultural resources from activities on public land are minimal due to avoidance or development of mitigation measures. Projected cumulative impacts to cultural resources from the proposed action, when combined with past, present, and future actions are expected to be insignificant. The majority of the cultural sites in the proposed area can be avoided during lease development or mitigated.

5.3.3. Cumulative Impacts on Native American Religious Concerns

Fluid mineral leasing and exploration may contribute to the general decline in sites and associated activities of a cultural, traditional, and spiritual nature. Presently, impacts to many cultural, traditional, spiritual sites, and associated activities have been avoided through Native American consultation efforts. Only the potential impacts to tribal resources were analyzed in this EA because it evaluates the leasing of oil and gas parcels and does not analyze areas of proposed surface disturbance where impacts might be expected. Without a specific surface disturbing activity, location, and description, identifying all impacts to specific tribal resources is not possible. As noted previously, for any future development, the BLM would produce a site-specific EA, which would discuss alternatives or measures that may reduce or eliminate impacts to Native American Religious Concerns.

5.3.4. Cumulative Impacts on Wildlife Resources

All wildlife species have a preferred habitat. Human-caused disturbances, wildfire, deep snow, drought, or other climatic events may, cause wildlife species to move to areas of less desirable habitat. Wildlife may be forced to move into areas that may already be at carrying capacity. This may in turn result in a reduction of the population size or the viability of the habitat. In those cases where a species is indigenous to very small unique or isolated habitat and is not adaptable, the entire species could be lost. A number of other ongoing projects and future activities in the area, such as mineral exploration, off-highway vehicle use, and livestock grazing could cumulatively impact wildlife. These activities could result in loss of habitat, habitat fragmentation, and disruption of movement patterns. It is expected that the proposed action may contribute to cumulative impacts if exploration and development of the lease parcels is authorized in the future, although the reasonably foreseeable role of oil and gas exploration and development in overall impacts within the assessment area is negligible especially if effectively minimized through site-specific COAs, BMPs, and mitigation measures.

5.3.5. Cumulative Impacts on Water Quality (Surface and Ground) and Quantity

The impacts from the proposed, ongoing, and reasonably foreseeable actions do not appear to have an incremental effect on any area of the CESA because the total water use in the area is minimal and is exceeded by the recharge volumes on an annual basis.

5.3.6. Cumulative Impacts on Wastes, Hazardous and Solid

The cumulative impact of hazardous and solid waste generated during the development of authorized, proposed, or reasonably foreseeable actions would be negligible because of mitigation which would be developed during site specific analysis. Additionally, federal and state governments specifically regulate each project to ensure, to the extent possible, that there are no releases of hazardous materials into the environment.

5.3.7. Cumulative Impacts on Noxious Weeds and Invasive, Nonnative Species

Continued use by off-highway vehicles and cattle grazing may have contributed to the infestation and spread of invasive plants, noxious weeds and, pests within the CESA. Overall, the proposed action and possible subsequent exploration and development of oil and gas leases could increase the potential for impacts to existing native plant communities. However, measures taken in accordance with the prevention schedule and best management practices included in the plans of operations for future oil and gas projects would prevent the spread of invasive species. By implementing site specific mitigation measures, the incremental effect from past, present and future activities, would ensure that cumulative impacts to invasive plants, noxious weeds, and pests would be minimal.

5.3.8. Cumulative Impacts on Geology and Minerals

A number of other ongoing and future activities in the area, such as mineral exploration and sand and gravel pit development, could cumulatively impact mineral resources within the assessment area. These impacts include conflicts between exploration and development of mineral resources and loss of access to mineral resources. However, based on the small scale of expected disturbance from oil and gas-related activities, the cumulative impact to minerals and geology is expected to be negligible. Impacts that may exist could be mitigated by negotiations between operators.

5.3.9. Cumulative Impacts on Soils

A number of ongoing actions and future activities in the area, such as mineral exploration, off-highway vehicle use, and livestock grazing could cumulatively impact soils. These impacts include erosion of soils, disturbance of microbiotic crusts, and soil compaction. It is expected that the Proposed Action may contribute to cumulative impacts, though the reasonably foreseeable role of oil and gas exploration and development in overall impacts within the assessment area is negligible especially if effectively mitigated.

5.3.10. Cumulative Impacts on Vegetation

The disturbance associated with oil and gas exploration and development would add to the disturbance from mining exploration, and off-highway vehicles use. The creation of new roads, construction of drill pads, and the development of wells would remove vegetation and increase the amount of bare ground and susceptibility to erosion and invasion by invasive plants and noxious weeds. Increased erosion would remove critical, nutrient rich top soil which is needed for vegetation to survive. Further damage, in the form of compacting soils, crushing microbiotic crusts, and damaging understory grasses, shrubs, and forbs could have impacts on these ecosystems. However, the cumulative impacts of the proposed action on vegetation are expected to be minimal due to the relatively small area of disturbance, concurrent reclamation, and developed site specific mitigation.

5.3.11. Cumulative Impacts on Range Resources

The disturbance associated with oil and gas exploration and development would add to the disturbance from mining exploration and off-highway vehicle use. The creation of new roads, construction of drill pads and the development of wells removes available forage for livestock. Increased reductions of available forage could have an impact on ranching operations. However, the cumulative impacts of the proposed action on range resources are expected to be minimal due to the relatively small area of disturbance, concurrent reclamation, and developed site-specific mitigation.

5.3.12. Cumulative Impacts on Land and Realty

Cumulative impacts from past, present and future activities to realty actions within the assessment area are negligible. Site-specific mitigation measures for exploration and development would ensure that the potential cumulative impacts from the proposed action would remain negligible.

5.3.13. Cumulative Impacts on Visual Resources

The cumulative impacts from past, present, and future activities as previously outlined, remain low to moderate for visual resources due to the likelihood of large distances between actions and limited surface disturbance. Most of the future activities would be on valley floors. Visual resources are mitigated on a case-by-case basis and many of the activities would be temporary in nature.

Principal existing human-made visual features within the assessment area include several county roads and US highway 6. There are also several gravel and native surface secondary roads, ranches, farms, and electrical transmission lines. None of the future activities would create any visual impact inconsistent with the applicable VRM Class ratings for the assessment area, thus the overall cumulative impact would continue to be low to moderate.

5.3.14. Cumulative Impacts on Recreation

Increased commercial developments would increase the population of the area, which would in turn create an increase in all recreational activities such as visits to WSAs, hunting, and off-highway vehicle use in the assessment area. Given that many recreational activities are dependent upon a high quality visual/aesthetic environment, commercial developments, including fluid mineral development, has the potential to lower the quality of recreational experiences in the assessment area. However, the mitigation measures developed during site specific analysis in the CESA would ensure the quality of recreational experiences would not be significantly reduced.

5.3.15. Cumulative Impacts on Socioeconomics

The Proposed Action does not: Induce substantial growth or concentration of population, displace a large number of people, cause a substantial reduction in employment, reduce wage and

salary earnings, cause a substantial net increase in county expenditures, or create a substantial demand for public services. In the volatile economy of the foreseeable future, it is expected that the cumulative and incremental socioeconomic effects of the proposed action, would be beneficial and not significant.

6.0 LIST OF PREPARERS

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7.0 PERSONS OR AGENCIES CONSULTED

Duckwater Shoshone Tribe
Yomba Shoshone Tribe
Ely Shoshone Tribe
Nevada Department of Wildlife (NDOW)

8.0 LIST OF REFERENCES

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APPENDIX A

LIST OF PARCELS
OFFERED FOR SALE IN THE
JUNE 2013 OIL AND GAS LEASE SALE

NV-13-06-003 120.000 Acres
T.0050N, R.0540E, 21 MDM, NV
Sec. 010 NENE;
022 E2NE.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-004 1284.000 Acres
T.0060N, R.0540E, 21 MDM, NV
Sec. 035 PROT ALL;
036 PROT ALL.
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN078693
Formerly Lease No.

NV-13-06-005 1268.720 Acres
T.0050N, R.0550E, 21 MDM, NV
Sec. 001 LOTS 3-4;
001 S2NW,SW;
012 W2;
013 ALL;

Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN066109
Formerly Lease No.

NV-13-06-006 2149.440 Acres
T.0050N, R.0550E, 21 MDM, NV
Sec. 003 LOTS 3-4;
003 S2NW,SW;
004 LOTS 1-4;
004 S2N2,S2;
005 LOTS 1-4;
005 S2N2,S2;
009 ALL;
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN066125
Formerly Lease No.

NV-13-06-007 1973.020 Acres
T.0050N, R.0550E, 21 MDM, NV
Sec. 006 LOTS 1-7;
006 S2NE,SENW,E2SW,SE;
007 LOTS 1-4;
007 E2,E2W2;
008 ALL;
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN066110, NVN066125
Formerly Lease No.

NV-13-06-008 1963.360 Acres
T.0050N, R.0550E, 21 MDM, NV
Sec. 017 ALL;
018 LOTS 1-4;
018 E2,E2W2;
020 ALL;
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN080762
Formerly Lease No.

NV-13-06-009 2029.920 Acres
T.0050N, R.0550E, 21 MDM, NV
Sec. 019 LOTS 1-4;
019 E2,E2W2;
030 LOTS 1-4;
030 E2,E2W2;
031 LOTS 1-4;
031 E2,E2W2.
Nye County
Battle Mountain DO

FORMERLY LEASE (NO)S. NVN080762
Formerly Lease No.

NV-13-06-010 1800.000 Acres
T.0050N, R.0550E, 21 MDM, NV
Sec. 024 ALL;
025 ALL;
036 W2NE,W2,W2SE,SESE.
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN066111
Formerly Lease No.

NV-13-06-011 1974.000 Acres
T.0060N, R.0550E, 21 MDM, NV
Sec. 001 PROT ALL;
002 PROT ALL;
003 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-012 1938.000 Acres
T.0060N, R.0550E, 21 MDM, NV
Sec. 004 PROT ALL;
008 PROT ALL;
009 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-013 2560.000 Acres
T.0060N, R.0550E, 21 MDM, NV
Sec. 010 PROT ALL;
011 PROT ALL;
012 PROT ALL;
013 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-014 2560.000 Acres
T.0060N, R.0550E, 21 MDM, NV
Sec. 014 PROT ALL;
015 PROT ALL;
016 PROT ALL;
022 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-015 1862.000 Acres
T.0060N, R.0550E, 21 MDM, NV
Sec. 017 PROT ALL;
018 PROT ALL;
019 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-016 2560.000 Acres
T.0060N, R.0550E, 21 MDM, NV
Sec. 023 PROT ALL;
024 PROT ALL;
025 PROT ALL;
026 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-017 2528.000 Acres
T.0060N, R.0550E, 21 MDM, NV
Sec. 027 PROT ALL;
028 PROT ALL;
029 PROT ALL;
030 PROT ALL.

Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-018 2490.000 Acres
T.0060N, R.0550E, 21 MDM, NV
Sec. 031 PROT ALL;
032 PROT ALL;
033 PROT ALL;
034 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-019 1980.630 Acres
T.0080N, R.0550E, 21 MDM, NV
Sec. 002 LOTS 3-4;
002 S2NW;
003 LOTS 1-4;
003 S2N2,SW;
009 SE;
010 NW;
014 E2,NENW;
020 W2;
029 W2.
Nye County
Battle Mountain DO
INCLUDES LAND IN RR VALLEY WMA (SEC 14)
OPEN TO LEASING, MAY NEED CONSULT W/ NDOW
NDOT MAT SITES IN SEC 20
Formerly Lease No.

NV-13-06-020 953.380 Acres
T.0060N, R.0560E, 21 MDM, NV
Sec. 016 SE;
018 LOTS 1-4;
018 E2,E2W2;
020 NW.
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN066112
Formerly Lease No.

NV-13-06-021 1916.180 Acres
T.0060N, R.0560E, 21 MDM, NV
Sec. 030 LOTS 1-4;
030 E2,E2W2;
031 LOTS 1-4;
031 E2,E2W2;
032 ALL;
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-022 840.000 Acres
T.0070N, R.0560E, 21 MDM, NV
Sec. 017 ALL;
021 SENW,N2SW;
022 NENW;
024 NENW.
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN08039
Formerly Lease No.

NV-13-06-023 2320.200 Acres
T.0080N, R.0560E, 21 MDM, NV
Sec. 001 LOTS 1-4;
001 S2NW,SW,E2SE,SWSE;
002 LOTS 1-4;
002 S2N2,S2;
003 LOTS 1-4;
003 S2N2,S2;
012 SWNE,NW,S2.
Nye County
Battle Mountain DO
INCLUDES LAND IN RR VALLEY WMA, SEC 1-3,12
OPEN TO LEASING, MAY NEED CONSULT W/ NDOW

Formerly Lease No.

NV-13-06-024 2535.600 Acres
T.0080N, R.0560E, 21 MDM, NV
Sec. 004 SE;
005 LOTS 3-4;
005 S2NW;
006 LOTS 1-7;
006 S2NE,SENW,E2SW,SE;
007 LOTS 1-4;
007 E2,E2W2;
017 E2;
018 LOTS 1-4;
018 E2,E2W2.
Nye County
Battle Mountain DO
INCLUDES LAND IN RR VALLEY WMA (SEC 18)
OPEN TO LEASING, MAY NEED CONSULT W/ NDOW
COMMUNITY PIT - SEC 6: W2 OF LOT 4
Formerly Lease No.

NV-13-06-025 2052.800 Acres
T.0080N, R.0560E, 21 MDM, NV
Sec. 031 LOTS 1-4;
031 E2,E2W2.
019 LOTS 1-4;
019 E2,E2W2;
020 NE;
030 LOTS 1-4;
030 E2,E2W2;
Nye County
Battle Mountain DO
INCLUDES LAND IN RR VALLEY WMA (SEC 19)
OPEN TO LEASING, MAY NEED CONSULT W/ NDOW
Formerly Lease No.

NV-13-06-026 1922.000 Acres
T.0050N, R.0570E, 21 MDM, NV
Sec. 005 PROT ALL;
006 PROT ALL;
007 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-027 2554.000 Acres
T.0050N, R.0570E, 21 MDM, NV
Sec. 008 PROT ALL;
017 PROT ALL;
018 PROT ALL;
019 PROT ALL EXCLUDING HE PATS;
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-028 2420.000 Acres
T.0050N, R.0570E, 21 MDM, NV
Sec. 020 PROT ALL;
029 PROT ALL;
030 PROT ALL EXCLUDING HE PATS;
031 PROT ALL EXCLUDING HE PATS.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-029 1232.000 Acres
T.0060N, R.0570E, 21 MDM, NV
Sec. 006 PROT N2,S2SW;
007 PROT ALL;
008 PROT NW.
Nye County
Battle Mountain DO

Formerly Lease No.

NV-13-06-030 480.000 Acres
T.0060N, R.0570E, 21 MDM, NV
Sec. 008 PROT E2,SW.
Nye County
Battle Mountain DO
NATIONAL FOREST - FS REVIEW RECEIVED
PENDING PRESALE OFFER NO. NVN086961
Formerly Lease No.

NV-13-06-031 2358.720 Acres
T.0070N, R.0570E, 21 MDM, NV
Sec. 003 LOTS 1-4;
003 S2N2,SW;
010 ALL;
011 PROT W2SW;
012 PROT ALL;
013 PROT N2,N2SE;
014 PROT W2NW,NWSW.
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN081150
Formerly Lease No.

NV-13-06-032 1760.000 Acres
T.0070N, R.0570E, 21 MDM, NV
Sec. 008 N2NW;
016 NWSE,S2SE;
019 SE;
020 S2N2,S2;
021 W2NE,SENE,S2;
028 N2SW;
030 NE;
033 W2NW,SW.
Nye County
Battle Mountain DO
GRANT CANYON UA/PA, IBLA LSE EXPIRED
SEC 16: SW, SEC 21: NW
Formerly Lease No.

NV-13-06-033 600.500 Acres
T.0080N, R.0570E, 21 MDM, NV
Sec. 005 LOTS 3-4;
005 S2NW;
008 NENW,SW,S2SE;
017 N2NE,SENE;
019 NESE.
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN075652, NVN075653
Formerly Lease No.

NV-13-06-034 800.000 Acres
T.0080N, R.0570E, 21 MDM, NV
Sec. 010 SE;
012 SWNW;
015 E2;
034 NE,N2SE,SESE.
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN075876
Formerly Lease No.

NV-13-06-035 118.840 Acres
T.0090N, R.0570E, 21 MDM, NV
Sec. 007 SENW.
006 LOTS 3-4;
Nye County
Battle Mountain DO
FORMERLY LEASE (NO)S. NVN061532
Formerly Lease No.

NV-13-06-036 1600.000 Acres
T.0090N, R.0570E, 21 MDM, NV
Sec. 012 SW;

013 N2,E2SW,SE;
014 N2NE;
015 E2NE;
016 N2NE;
024 ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-037 1560.000 Acres
T.0090N, R.0570E, 21 MDM, NV
Sec. 025 ALL;
026 NWSW,S2S2;
027 ALL;
035 W2NW.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-038 349.350 Acres
T.0090N, R.0570E, 21 MDM, NV
Sec. 030 LOTS 1;
031 LOTS 1-2;
032 NWSE;
033 S2NW,N2SW,SESW.
Nye County
Battle Mountain DO
INCLUDES LAND IN RR VALLEY WMA (SEC 33)
OPEN TO LEASING, MAY NEED CONSULT W/ NDOW
FORMERLY LEASE (NO)S. NVN061529
Formerly Lease No.

NV-13-06-039 1522.000 Acres
T.0070N, R.0580E, 21 MDM, NV
Sec. 007 PROT ALL;
017 PROT S2NW,SW;
018 PROT ALL.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-040 240.000 Acres
T.0080N, R.0580E, 21 MDM, NV
Sec. 006 PROT NW,N2SW.
Nye County
Battle Mountain DO
Formerly Lease No.

NV-13-06-041 440.000 Acres
T.0090N, R.0580E, 21 MDM, NV
Sec. 020 PROT NWNE,E2NW,W2W2;
029 PROT W2W2.
Nye County
Battle Mountain DO
Formerly Lease No.

APPENDIX B

OIL AND GAS LEASE PARCELS STIPULATIONS

ARCHAEOLOGICAL STIPULATION

These leases may be found to contain 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, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification 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.

Authority: BLM Washington Office Instruction Memorandum 2005-03

Parcel	Description of Lands
NV-13-06-011	ALL LANDS
NV-13-06-012	ALL LANDS
NV-13-06-013	ALL LANDS
NV-13-06-014	ALL LANDS
NV-13-06-016	ALL LANDS
NV-13-06-019	ALL LANDS
NV-13-06-020	ALL LANDS
NV-13-06-021	ALL LANDS
NV-13-06-023	ALL LANDS
NV-13-06-024	ALL LANDS
NV-13-06-026	ALL LANDS
NV-13-06-027	ALL LANDS
NV-13-06-028	ALL LANDS
NV-13-06-029	ALL LANDS
NV-13-06-031	ALL LANDS
NV-13-06-032	ALL LANDS
NV-13-06-033	ALL LANDS
NV-13-06-034	ALL LANDS
NV-13-06-035	ALL LANDS
NV-13-06-036	ALL LANDS
NV-13-06-037	ALL LANDS
NV-13-06-038	ALL LANDS
NV-13-06-040	ALL LANDS

ARCH-ZONE 1

ARCHAEOLOGICAL STIPULATION

These leases may be found to contain 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, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification 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.
Authority: BLM Washington Office Instruction Memorandum 2005-03

Parcel	Description of Lands
NV-13-06-004	ALL LANDS
NV-13-06-005	ALL LANDS
NV-13-06-010	ALL LANDS
NV-13-06-011	ALL LANDS
NV-13-06-012	ALL LANDS
NV-13-06-013	ALL LANDS
NV-13-06-014	ALL LANDS
NV-13-06-015	ALL LANDS
NV-13-06-016	ALL LANDS
NV-13-06-017	ALL LANDS
NV-13-06-018	ALL LANDS
NV-13-06-019	ALL LANDS
NV-13-06-020	ALL LANDS
NV-13-06-021	ALL LANDS
NV-13-06-023	ALL LANDS
NV-13-06-024	ALL LANDS
NV-13-06-025	ALL LANDS
NV-13-06-026	ALL LANDS
NV-13-06-027	ALL LANDS
NV-13-06-028	ALL LANDS
NV-13-06-029	ALL LANDS
NV-13-06-031	ALL LANDS
NV-13-06-032	ALL LANDS
NV-13-06-033	ALL LANDS
NV-13-06-034	ALL LANDS
NV-13-06-035	ALL LANDS
NV-13-06-036	ALL LANDS
NV-13-06-037	ALL LANDS
NV-13-06-040	ALL LANDS

ARCH-ZONE 2

ARCHAEOLOGICAL STIPULATION

These leases may be found to contain 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, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification 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.

Authority: BLM Washington Office Instruction Memorandum 2005-03

Parcel	Description of Lands
NV-13-06-003	ALL LANDS
NV-13-06-004	ALL LANDS
NV-13-06-005	ALL LANDS
NV-13-06-006	ALL LANDS
NV-13-06-007	ALL LANDS
NV-13-06-008	ALL LANDS
NV-13-06-009	ALL LANDS
NV-13-06-010	ALL LANDS
NV-13-06-012	ALL LANDS
NV-13-06-013	ALL LANDS
NV-13-06-014	ALL LANDS
NV-13-06-015	ALL LANDS
NV-13-06-016	ALL LANDS
NV-13-06-017	ALL LANDS
NV-13-06-018	ALL LANDS
NV-13-06-019	ALL LANDS
NV-13-06-020	ALL LANDS
NV-13-06-021	ALL LANDS
NV-13-06-024	ALL LANDS
NV-13-06-026	ALL LANDS
NV-13-06-027	ALL LANDS
NV-13-06-028	ALL LANDS
NV-13-06-029	ALL LANDS
NV-13-06-031	ALL LANDS
NV-13-06-032	ALL LANDS
NV-13-06-035	ALL LANDS
NV-13-06-040	ALL LANDS
NV-13-06-041	ALL LANDS

ARCH-ZONE 3

ARCHAEOLOGICAL STIPULATION

These leases may be found to contain 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, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification 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.

Authority: BLM Washington Office Instruction Memorandum 2005-03

Parcels	Description of Lands
NV-13-06-026	ALL LANDS

ARCH-ZONE 4

ARCHAEOLOGICAL STIPULATION

These leases may be found to contain 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, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification 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.

Authority: BLM Washington Office Instruction Memorandum 2005-03

Parcel	Description of Lands
NV-13-06-003	ALL LANDS
NV-13-06-019	ALL LANDS
NV-13-06-022	ALL LANDS
NV-13-06-024	ALL LANDS
NV-13-06-025	ALL LANDS
NV-13-06-029	ALL LANDS
NV-13-06-032	ALL LANDS
NV-13-06-036	ALL LANDS
NV-13-06-037	ALL LANDS

ARCH-ZONE 5

ARCHAEOLOGICAL STIPULATION

These leases may be found to contain 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, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification 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.

Authority: BLM Washington Office Instruction Memorandum 2005-03

These parcels are located outside of the area defined by the Railroad Valley Predictive Model. Only 2 to 5 percent of this total area has been surveyed for cultural resources. Most of the surveys conducted within these areas have been linear surveys for roads or seismic lines. Cultural sites were identified during most of those surveys. A Class III cultural survey will be required for projects located in these areas if that area has not been adequately surveyed in the last 10 years.

Parcels	Description of Lands
NV-13-06-039	ALL LANDS

ARCH-ZONE 6

NATIVE AMERICAN CONSULTATION REQUIRED

This lease may be found to contain 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, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification 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.

Parcel	Description of Lands
ALL PARCELS	

NV-060-NA1

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operations and maintenance of production facilities.

Deer Habitat from January 15 to May 15.

Parcel	Description of Lands
NV-13-06-026	ALL LANDS
NV-13-06-030	ALL LANDS
NV-13-06-039	ALL LANDS
NV-13-06-040	ALL LANDS
NV-13-06-041	ALL LANDS

For the purpose of:

Protection of mule deer winter habitat, restrict activities which might be disturbing to mule deer between January 15 and May 15, Tonopah RMP, p. 8. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of the stipulation, see BLM Manual 1624 and 3103.

NSO-065-08

TIMING LIMITATION STIPULATION

No surface occupancy is allowed during the following time period. This stipulation does not apply to operation and maintenance of production facilities.

Bighorn Lambing Area

Bighorn lambing from February 1 to May 15.

Parcel	Description of Lands
NV-13-06-026	T.0050N, R.0570E, 21 MDM, NV Sec. 005 PROT ALL;

NSO-065-13

MIGRATORY BIRDS

Surface disturbing activities during the migratory bird nesting season (March to July) may be restricted in order to avoid potential violation of the Migratory Bird Act. Appropriate inventories of migratory birds shall be conducted during analysis of actual site development. If active nests are located, or if other evidence of nesting is observed (mating pairs, territorial defense, carrying of nesting material, transporting of food), the proponent shall coordinate with BLM to establish appropriate protection measures for the nesting sites. Protection measures may include avoidance or restricting or excluding development in certain areas until nests and nesting birds will not be disturbed. After July 31, no further avian survey, will be conducted until the following year.

Parcel	Description of Lands
ALL PARCELS	

OG-020-10

MATERIAL SITE STIPULATION

The lessee accepts this lease subject to the right of the State of Nevada to remove road building material from the land embraced in Material Site No. NVCC 19974 and agrees that its operations will not interfere with the material operations of the Department of Transportation.

Parcel	Description of Lands
NV-13-06-019	T.0080N, R.0550E, 21 MDM, NV Sec. 020, S½NW¼, N½SW¼;

OG-44

COMMUNITY PIT STIPULATION

The lessee accepts this lease subject to the right of individuals, authorized by Bureau of Land Management District Office, to remove sand and gravel from the land embraced in Community Pit No. N-20299. The lessee agrees that its operations will not interfere with the use of the pit(s) by these individuals.

Parcel	Description of Lands
NV-13-06-024	T.0080N, R.0560E, 21 MDM, NV Sec. 006, Lot 4;

OG-44A

NO SURFACE OCCUPANCY STIPULATION

No surface use is allowed on the land described below (legal description or other description):

Railroad Valley (Lockes)

Parcel	Description of Lands
NV-13-06-019	T.0080N, R.0550E, 21 MDM, NV Section 14, NE¼NW¼, W½E½, SE¼SE¼,

For the purpose of:

Protect the Railroad Valley Wildlife Management Area Lockes Pond Complex impoundments with a buffer zone for resident and migratory waterfowl and shorebirds.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of the stipulation, see BLM Manual 1624 and 3101).

NO SURFACE OCCUPANCY STIPULATION

No surface use is allowed on the land described below (legal description or other description):

Railroad Valley (Big Well)

Parcel	Description of Lands
NV-13-06-023	T.0080N, R.0560E, 21 MDM, NV Section 2, Lots 1-4, S½N½, E½SE¼, E½W½SE¼,

For the purpose of:

Protection of the Railroad Valley Wildlife Management Area

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of the stipulation, see BLM Manual 1624 and 3101).

NSO-065-12

THREATENED, ENDANGERED, AND SPECIAL STATUS SPECIES

The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it complete its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. &1531 et seq., including completion of any required procedure for conference or consultation.

Authority: BLM Washington Office Instruction Memorandum 2002-174; Endangered Species Act

	Description of Lands
NV-13-06-023	T.0080N, R.0560E, 21 MDM, NV Section 2
NV-13-06-019	T.0080N, R.0550E, 21 MDM, NV Section 3

For the purpose of:

Protecting the Currant Milkvetch, a BLM Special Status Species.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of the stipulation, see BLM Manual 1624 and 3101).

NV-056-16

THREATENED, ENDANGERED, AND SPECIAL STATUS SPECIES

The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it complete its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. &1531 et seq., including completion of any required procedure for conference or consultation.

Authority: BLM Washington Office Instruction Memorandum 2002-174; Endangered Species Act

	Description of Lands
NV-13-06-019	T.0080N, R.0550E, 21 MDM, NV Section 29

For the purpose of:

Protecting the Eastwood Milkweed, a BLM Special Status Species.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of the stipulation, see BLM Manual 1624 and 3101).

NV-065-29

Serial No.
Parcel No. N-086981

NOTICE FOR LANDS OF THE NATIONAL FOREST SYSTEM
UNDER JURISDICTION OF
DEPARTMENT OF AGRICULTURE

In conducting operations associated with this lease, the lessee/operator must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use, occupancy, and management of National Forest System (NFS) lands when not inconsistent with existing lease rights granted by the Secretary of Interior.

All matters related to this notice are to be addressed to:

Forest Supervisor
Humboldt-Toiyabe NF
1200 Franklin Way
Sparks, NV 89431

Telephone: 775-331-6444

who is the authorized representative of the Secretary of Agriculture.

CULTURAL RESOURCES (National Historic Preservation Act of 1966 (NHPA), P.L. 89-665 as amended by P.L. 94-422, P.L. 94-458, and P.L. 96-515):

The Forest Service authorized officer is responsible for ensuring that the leased lands are examined prior to the undertaking of any ground-disturbing activities to determine whether or not cultural resources are present, and to specify mitigation measures for effects on cultural resources that are found to be present.

The lessee or operator shall contact the Forest Service to determine if a site-specific cultural resource inventory is required prior to undertaking any surface-disturbing activities on Forest Service lands covered by this lease.

The lessee or operator may engage the services of a cultural resource specialist acceptable to the Forest Service to conduct any necessary cultural resource inventory of the area of proposed surface disturbance. In consultation with the Forest Service authorized officer, the lessee or operator may elect to conduct an inventory of a larger area to allow for alternative or additional areas of disturbance that may be needed to accommodate other resource needs or operations.

The lessee or operator shall implement mitigation measures required by the Forest Service to preserve or avoid destruction of cultural resource values. Mitigation may include relocation of proposed facilities, testing, salvage, and recordation or other protective measures.

During the course of actual surface operations on Forest Service lands associated with this lease, the lessee or operator shall immediately bring to the attention of the Forest Service the discovery of any cultural or paleontological resources. The lessee or operator shall leave such discoveries intact until directed to proceed by Forest Service.

THREATENED OR ENDANGERED SPECIES (The Endangered Species Act, (ESA), P.L. 93-205 (1973), P.L. 94-359 (1974), P.L. 95-212 (1977), P.L. 95-632 (1978), P.L. 95-159 (1979), P.L. 97-304 (1982), P.L. 100-653 (1988)).

The Forest Service authorized officer is responsible for compliance with the Endangered Species Act. This includes meeting ESA Section 7 consultation requirements with the U.S. Fish and Wildlife Service prior to any surface disturbing activities associated with this lease with potential effects to species and/or habitats protected by the ESA. The results of consultation may indicate a need for modification of or restrictions on proposed surface disturbing activities.

The lessee or operator may choose to conduct the examination at their cost. Results of the examination will be used in any necessary ESA consultation procedures.
This examination and any associated reports, including Biological Assessments, must be done by or under the supervision of a qualified resource specialist approved by the Forest Service. Any reports must also be formally approved by the USDA Forest Service biologist or responsible official.

USDA Forest Service

R4-FS-13d

Serial No.
Parcel No. N-088961

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

a. Erosion Hazard – Slopes greater than 40% within:

T. 6 N., R.57 E., MDM
Section 8: portions of SW4SW4

b. Riparian Buffers – All streams (+100-yr flood plain, springs, ponds, and riparian) on lands within:

T. 6 N., R.57 E., MDM
Section 8: portions of N2SW4, S2SE4, NE4

For the purpose of:

a. Erosion Hazard – Slopes greater than 40%. To preclude construction of well sites and related facilities on slopes over 40%, which would involve relative risk of failure for large cu and fill slopes, which would be difficult to rehabilitate.

b. Riparian Buffers – All streams (+100-yr flood plain, springs, ponds, and riparian) – to preclude new surface-disturbing activities within critical riparian and aquatic habitats and 100-year flood plains.

Any changes to this stipulation will be made in accordance with the land use plan, the Oil and Gas Leasing EIS, and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

USDA Forest Service

R4-FS-NSO 14

Serial Number:
Parcel Number: N-086861

CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use on lands below that are subject to special operating constraints.

a. Erosion Hazard with steep slopes of 25-40%

T. 6 N., R. 57 E., MDM
Section 8: portions of SE4SE4 and E2NE4

b. Recreation Opportunity Spectrum – Semi-Primitive Non-Motorized (ROS/SPNM) Areas

T. 6 N., R. 57 E., MDM
Section 5: portions of SE4SW4, and E2

c. Bighorn Sheep

T. 6 N., R. 57 E., MDM
Section 8: all of SW4, E2

d. Inventoried Roadless Areas

T. 6 N., R. 57 E., MDM
Section 8: all of SW4, E2

For the purpose of:

a. Erosion Hazard (slopes 25-40%) – to require facilities such as well sites to be located to minimize construction on slopes and or to be designed to minimize large cut and fill slopes that are difficult to rehabilitate.

b. Recreation Opportunity Spectrum – Semi-Primitive Non-Motorized (ROS/SPNM) Areas – to limit the effect of disturbance by requiring that activities be located, designed, and reclaimed in a manner that maintains the semi-primitive non-motorized character of the land.

c. Bighorn Sheep- to require that activities be located and/or designed to avoid or minimize the potential loss of habitat, increased stress and/or displacement of big horn sheep.

d. Inventoried Roadless Areas- road construction and reconstruction would not be allowed in accordance with 2001 Roadless Area Conservation Rule

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 31 01, Forest Service Oil and Gas Regulations, 36 CFR, Sec. 228.104.)

USDA Forest Service R4-FS-CSU 16