



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E.
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

MAR 30 2010

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: ^{ACTING} Regional Director, Great Plains Region

SUBJECT: Environmental Assessment and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, for four proposed exploratory drilling wells by Petro-Hunt, LLC on 15-1H, 11-1H, 24-1H and 19-1H on the Fort Berthold Reservation, an Environmental Assessment (EA) has been completed and a Finding of No Significant Impact (FONSI) has been issued.

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the EA, FONSI and Notice of Availability. The Council on Environmental Quality (CEQ) regulations require that there be a public notice of availability of the FONSI (1506.6(b)). Please post the attached notice of availability at the Agency and Tribal buildings for 30 days.

If you have any questions, please call Marilyn Bercier, Regional Environmental Scientist, Division of Environment, Safety and Cultural Resources Management, at (605) 226-7656.

Attachment

cc: Marcus Marcus Levings, Chairman, Three Affiliated Tribes (with attachment)
Perry "No Tears" Brady, THPO (with attachment)
Roy Swalling, Bureau of Land Management (with attachment)
Jonathon Shelman, Corps of Engineers (with attachment)

Finding of No Significant Impact

Petro Hunt, LLC (Petro Hunt)

Environmental Assessment for Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas Wells

Fort Berthold Indian Reservation
McKenzie County, North Dakota

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to drill up to four exploratory oil and gas wells as follows:

- Fort Berthold 152-94-22D-15-1H located in T152N, R94W, SE ¼ of Section 22 (15-1H Well)
- Fort Berthold 152-94-14C-11-1H located in T152N, R94W, SW ¼ of Section 14 (11-1H Well)
- Fort Berthold 152-94-13B-24-1H located in T152N, R94W, NW ¼ of Section 13 (24-1H Well)
- Fort Berthold 152-93-18B-19-1H located in T152N, R93W, NW ¼ of Section 18 (19-1H Well)

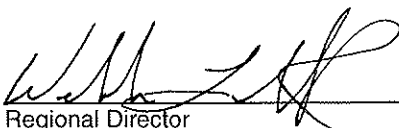
Associated federal actions by BIA include determinations of effect regarding environmental resources and positive recommendations to the Bureau of Land Management regarding the Applications for Permit to Drill.

The potential of the proposed actions to impact the human environment is analyzed in the following Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the EA, I have determined that the proposed project will not significantly affect the quality of the human or natural environment. No Environmental Impact Statement is required for any portion of the proposed activities.

This determination is based on the following factors:

1. Agency and public involvement solicited for the preceding NEPA document was sufficient to ascertain potential environmental concerns associated with the currently proposed project.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed actions and the No Action alternative.
3. Guidance from the U.S. Fish and Wildlife Service has been fully considered regarding wildlife impacts, particularly in regard to threatened or endangered species.
4. The proposed actions are designed to avoid adverse effects to historic, archaeological, cultural and traditional properties, sites and practices. Compliance with the procedures of the National Historic Preservation Act is complete.
5. Environmental justice was fully considered.
6. Cumulative effects to the environment are either mitigated or minimal.
7. No regulatory requirements have been waived or require compensatory mitigation measures.
8. The proposed projects will improve the socio-economic condition of the affected Indian community.

ACTING


Regional Director

3/30/10
Date



ENVIRONMENTAL ASSESSMENT

United States Bureau of Indian Affairs

**Great Plains Regional Office
Aberdeen, South Dakota**



Petro Hunt, LLC

**Drilling of 15-1H, 11-1H, 24-1H, and 19-1H
Exploratory Oil and Gas Wells**

Fort Berthold Indian Reservation

March 2010

For information contact:
Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resources
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Chapter 1 Purpose and Need for Action

1.1 Introduction

This EA (Environmental Assessment) was prepared in accordance with NEPA (the National Environmental Policy Act) of 1969, as amended, and the regulations of the CEQ (Council on Environmental Quality), 40 CFR parts 1500 through 1508. An EA is an informational document intended for use by both decision-makers and the public. It discloses relevant environmental information concerning the proposed action and the no-action alternative.

1.2 Description of the Proposed Action

The Fort Berthold Reservation encompasses 988,000 acres, 457,837 of which are in tribal and individual Indian ownership by the Three Affiliated Tribes (Mandan, Hidatsa, and Arikara) and its members. The Reservation is located in west central North Dakota and is split into three areas by Lake Sakakawea, which traverses the center of the Reservation. It occupies sections of six counties: Dunn, McKenzie, McLean, Mercer, Mountrail, and Ward.

The proposed action includes approval by the BIA and BLM for Petro-Hunt, LLC (Petro-Hunt) to drill and complete up to four exploratory oil and gas wells on the Fort Berthold Reservation. These well sites are proposed to be positioned in the following locations:

- Fort Berthold 152-94-22D-15-1H located in T152N, R94W, SE ¼ of Section 22 (referred to as the 15-1H Well)
- Fort Berthold 152-94-14C-11-1H located in T152N, R94W, SW ¼ of Section 14 (referred to as the 11-1H Well)
- Fort Berthold 152-94-13B-24-1H located in T152N, R94W, NW ¼ of Section 13 (referred to as the 24-1H Well)
- Fort Berthold 152-93-18B-19-1H located in T152N, R93W, NW ¼ of Section 18 (referred to as the 19-1H Well)

Please refer to Figure 1-1, Project Location Map.

Each well site would include a drilling unit in which the minerals to be developed by each well are located. Completion activities include acquisition of rights-of-way, infrastructure for the proposed wells, and roadway improvements.

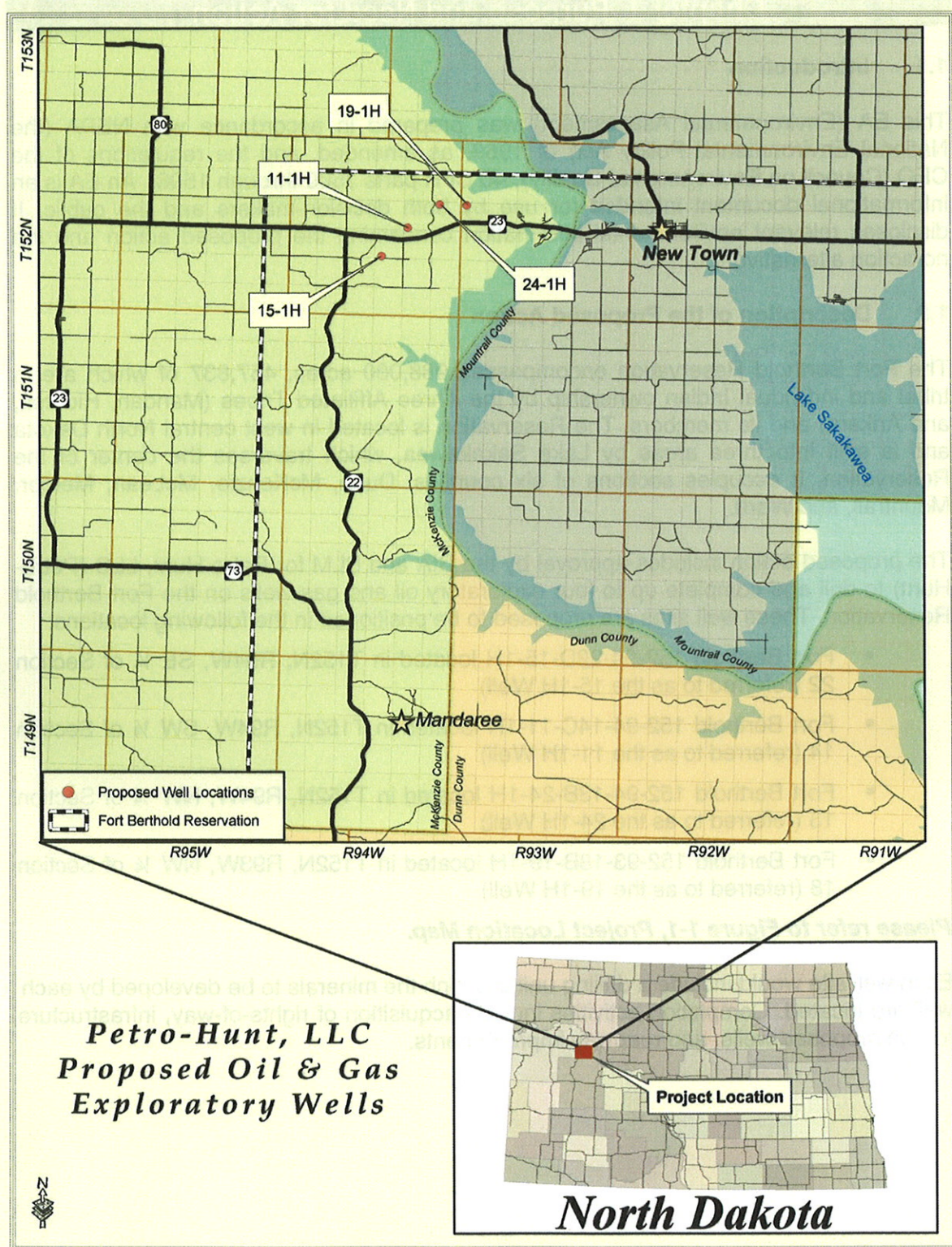


Figure 1-1, Project Location Map

1.3 Need for the Proposed Action

The Tribes own their mineral resources, which are held in trust by the United States government through the BIA. The BIA's approval to drill the four exploratory wells would provide important benefits to the Three Affiliated Tribes, including revenue that could contribute to the Tribal budgets, satisfy Tribal obligations, and fund land purchase programs to stabilize its land base. It would also provide individual members of the Tribes with needed employment and income.

Furthermore, the proposed action gives the United States an opportunity to reduce its dependence on foreign oil and gas by exploring for domestic sources of oil and gas.

1.4 Purpose of the Proposed Action

The purpose of the proposed action is to allow the Three Affiliated Tribes to provide for oil and gas development on the identified lands on the Fort Berthold Reservation. Additionally, the purpose is to determine if there are commercially recoverable oil and gas resources on the lands subject to Petro-Hunt's lease areas by drilling up to four exploratory wells at the identified locations.

1.5 Regulations that Apply to Oil and Gas Development Activities

The BIA must comply with NEPA before it authorizes the drilling of the proposed exploratory wells. Therefore, an EA for the proposed wells is necessary to analyze the direct, indirect, and cumulative impacts of the BIA's approval of the drilling.

Oil and gas development activities on Indian lands are subject to a variety of federal environmental regulations and policies under authority of the BIA and BLM. This inspection and enforcement authority derives from the United States trust obligations to the Tribes, the *Indian Mineral Leasing Act* of 1938, the *Indian Mineral Development Act* of 1982, and the *Federal Oil and Gas Royalty Management Act* of 1982. Under the BIA's regulations at 25 CFR Part 225, the BLM exercises authority over oil and gas development on Tribal lands under its implementing regulations at 43 CFR Part 3160 and its internal supplemental regulations and policies. The BLM's authority includes the inspection of oil and gas operations to determine compliance with applicable statutes, regulations, and all applicable orders. These include, but are not limited to, conducting operations in a manner which ensures the proper handling, measurement, disposition, and site security of leasehold production; and protecting other natural resources, environmental quality, life, and property.

Chapter 2 Alternatives

2.1 Introduction

This chapter provides information on the development and evaluation of project alternatives. The development of alternatives is directly related to the purpose and need for the project. Two alternatives are being considered for this project: a no action alternative and a proposed action alternative.

2.2 Alternative A: No Action

Under the no action alternative (Alternative A), the BIA and BLM would not authorize the development of the four proposed exploratory wells. There would be no environmental impacts associated with Alternative A. However, the Three Affiliated Tribes would not receive potential royalties on production, or other economic benefits from oil and gas development on the Reservation, and the potential for commercially recoverable deposits of oil and gas would not be evaluated.

2.3 Alternative B: Proposed Action

The proposed action (Alternative B) includes authorization by the BIA and BLM to drill up to four exploratory wells and complete the associated right-of-way acquisitions, roadway improvements, and infrastructure for the wells.

Each exploratory well would consist of an individual well pad, access road, associated infrastructure, and a spacing unit. The well pad is where the actual surface disturbance caused by drilling activities would occur. The spacing unit is the location of the minerals that are to be developed. The location of the proposed well sites, access roads, and proposed horizontal drilling techniques were chosen to minimize surface disturbance.

Each well location could require new right-of-way for access and may require additional right-of-way for supporting electrical lines and natural gas transmission pipelines. Rights-of-way would be located to avoid sensitive surface resources and any cultural resources identified in site surveys. Access roads would be improved as necessary to eliminate overly steep grades, maintain current drainage patterns, and provide all-weather driving surfaces.

Pre-on-site assessments of the well pad and access road areas were conducted at the 19-1H site on September 16, 2009, at the 11-1H and 15-1H sites on September 17, 2009, and at the 24-1H site on November 18, 2009. At the September pre-on-sites, representatives from the BIA (Environmental Protection Specialist and Realty Specialist), BLM, Three Affiliated Tribes THPO (Tribal Historic Preservation Office), Petro Hunt, Kadrmass, Lee & Jackson, and the construction consultant were present. The November pre-on-site was held with the BIA Environmental Protection Specialist, THPO, Petro Hunt, Kadrmass, Lee & Jackson, and the construction consultant. The purpose of the pre-on-site visits was to evaluate the suitability of the well pads and access roads for construction with respect to topography, stockpiling, drainage, erosion control, and other surface issues. Cultural resource surveys, as well as cursory surveys of biological and botanical resources were also conducted. The well pad and access road locations were finalized in consideration of these issues. During the site visit, BIA gathered information needed to develop site-specific mitigation measures to be incorporated into the final APDs.

Follow-up surveys of biological and botanical resources were conducted by Kadrmas, Lee & Jackson on October 12, 2009 at the 15-1H, 11-1H, and 19-1H sites and on November 18, 2009 at the 24-1H site. The purpose of these surveys was to gather more detailed site-specific data and photos than were collected at the pre-on-sites with regards to biological, botanical, soil, and water resources. A study area of 10 acres centered on the well pad center point and a 200-foot wide access road corridor were evaluated during these visits.

2.3.1 15-1H Well Site

The 15-1H well site would be located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, Township 152 North, Range 94 West to access potential oil and gas resources within the spacing unit consisting of Sections 22 and 15, Township 152 North, Range 94 West. **Please refer to Figure 2-1, 15-1H Well Site Overview.**

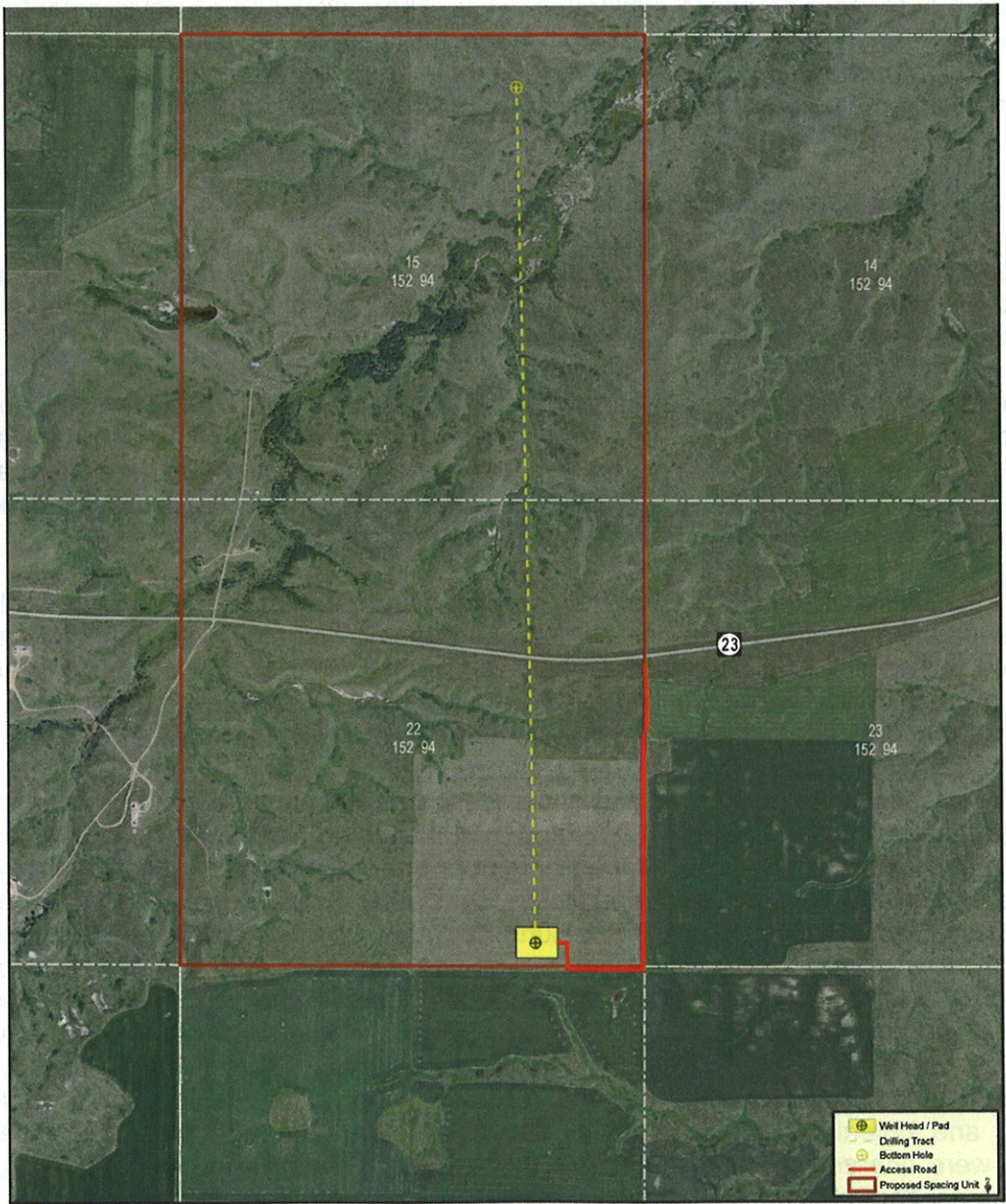


Figure 2-1, 15-1H Well Site Overview

The 15-1H site well pad would be accessed from the north and east. A new access road approximately 0.9 miles long would be constructed to connect the 15-1H site to North Dakota Highway 23. Minor spot grading may be needed to flatten existing landscape grades along the proposed access road alignment. Culverts and cattle guards would be installed as needed along this new access road.

2.3.2 11-1H Well Site

The 11-1H well site would be located in the SW¼SW¼ of Section 14, Township 152 North Range 94 West to access potential oil and gas resources within the spacing unit consisting of Sections 14 and 11, Township 152 North, Range 94 West. **Please refer to Figure 2-2, 11-1H Well Site Overview.**

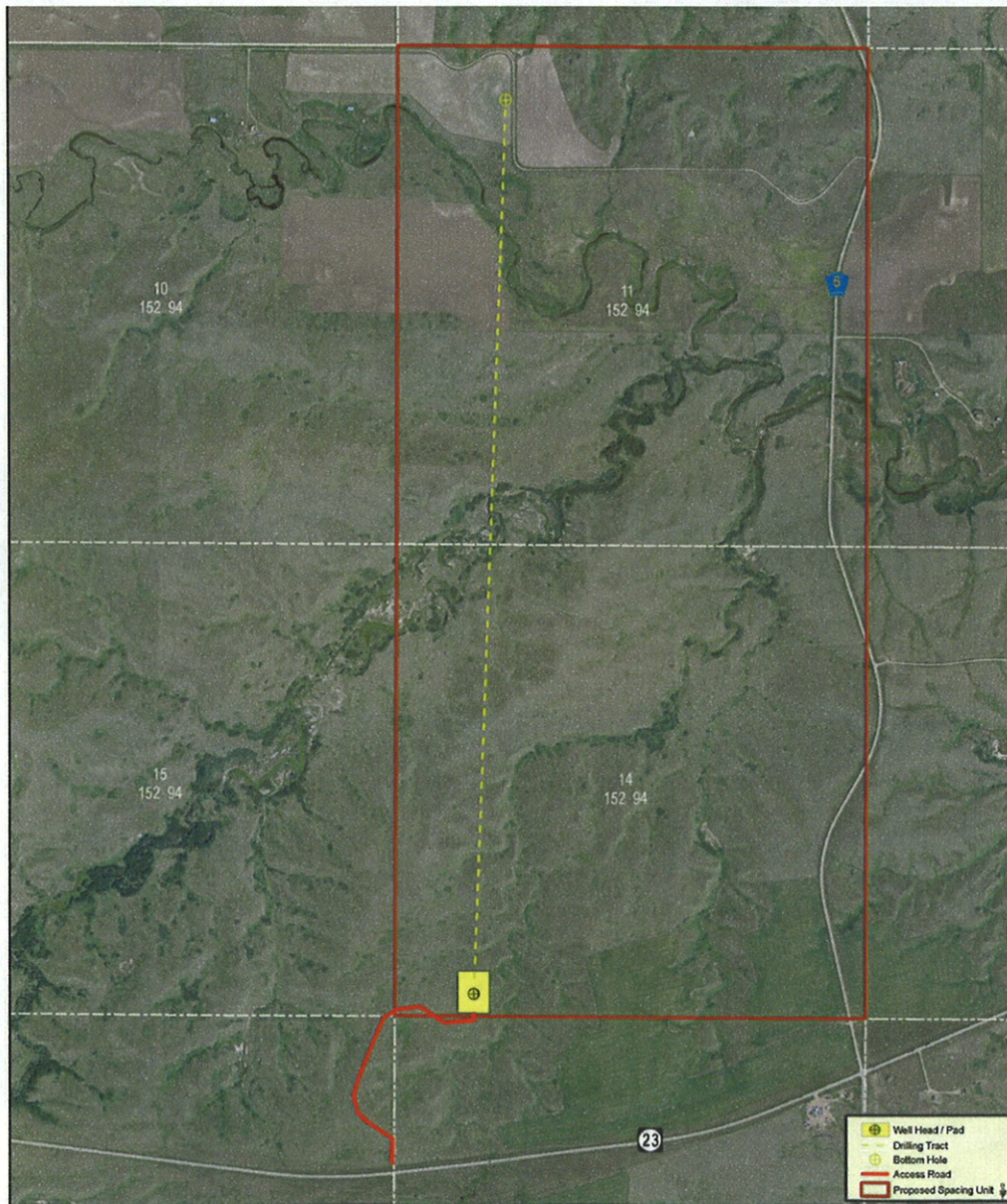


Figure 2-2, 11-1H Well Site Overview

The 11-1H site well pad would be accessed from the south. A new access road approximately 0.6 miles long would be constructed to connect the 11-1H site to North Dakota Highway 23. Minor spot grading may be needed to flatten existing landscape grades along the proposed access road alignment. Culverts and cattle guards would be installed as needed along this new access road.

2.3.3 24-1H Well Site

The 24-1H well site would be located in the NW¼NW¼ of Section 13, Township 152 North, Range 94 West to access potential oil and gas resources within the spacing unit consisting of Sections 13 and 24, Township 152 North, Range 94 West. **Please refer to Figure 2-3, 24-1H Well Site Overview.**

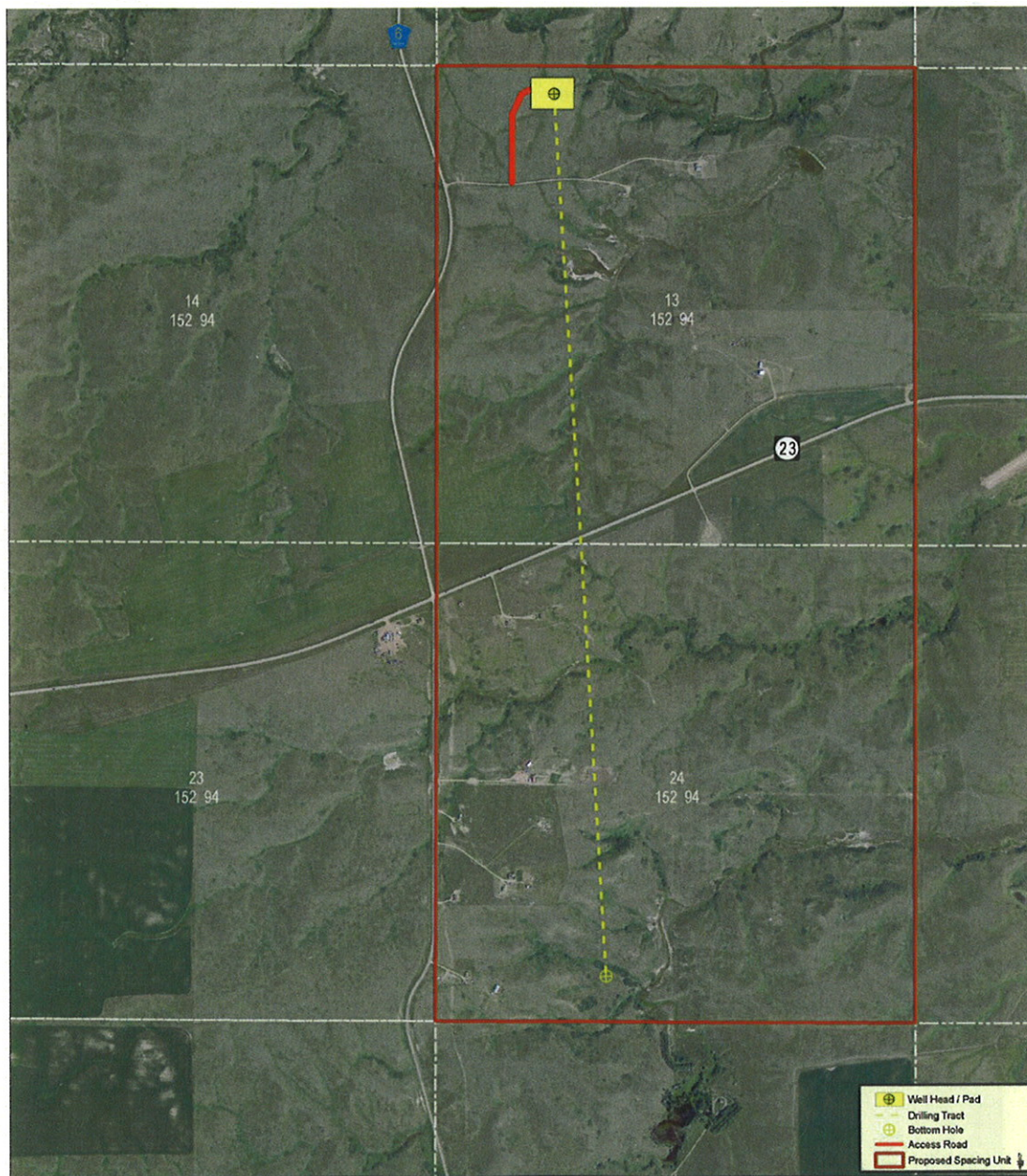


Figure 2-3, 24-1H Well Site Overview

The 24-1H site well pad would be accessed from the south. A new access road approximately 0.2 miles long would be constructed to connect the 24-1H site well pad to an existing gravel road that connects to BIA Route 6. Minor spot grading may be needed to flatten existing landscape grades along the proposed access road alignment. Culverts and cattle guards would be installed as needed along this new access road.

2.3.4 19-1H Well Site

The 19-1H well site would be located in the NE¼NW¼ Section 18, Township 152 North, Range 93 West to access potential oil and gas resources within the spacing unit consisting of Sections 18 and 19, Township 152 North, Range 93 West. **Please refer to Figure 2-4, 19-1H Well Site Overview.**

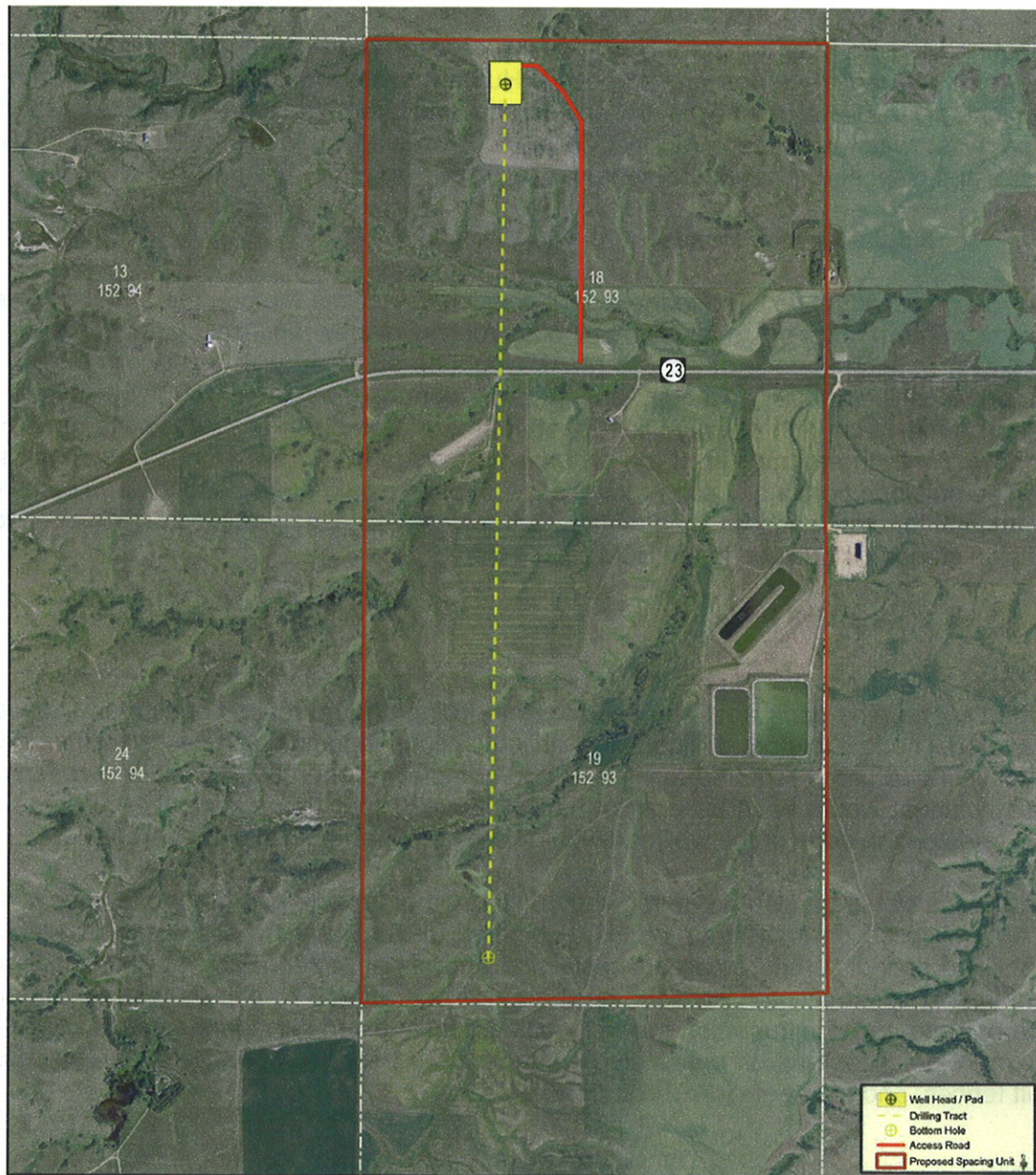


Figure 2-4, 19-1H Well Site Overview

The 19-1H well pad would be accessed from the south. A new access road approximately 0.7 miles long would be constructed to connect the 19-1H well pad to North Dakota Highway 23. Spot grading may be needed to flatten existing landscape grades along the proposed access road alignment. Culverts and cattle guard would be installed as needed along this new access road.

2.3.5 Activities that Apply to Development of All Wells

The following includes a discussion of items that would be consistent for construction of all proposed well locations:

2.3.5.1 Field Camps

Self-contained trailers may temporarily house key personnel on-site during drilling operations. No long-term residential camps are proposed. Human waste would be collected in standard portable chemical toilets or service trailers on-site and then transported off-site to a state-approved wastewater treatment facility. Other solid waste would be collected in enclosed containers and disposed of at a state-approved facility.

2.3.5.2 Access Roads

Existing roadways would be used to the extent possible to access the proposed wells; however, the improvement of existing roadways and construction of new access roads would also be required. The running surface of access roads would be surfaced with scoria or crushed rock from a previously approved location, and erosion control measures would be installed as necessary. A maximum right-of-way width of 40 feet would be disturbed, consisting of a 16-foot wide roadway with the remainder of the disturbed area due to borrow ditches and construction slopes. The outslope portions of constructed access roads would be re-seeded upon completion of construction to reduce access road related disturbance. Access road construction shall follow road design standards outlined in the BLM's Gold Book.

2.3.5.3 Well Pads

The proposed well pads would consist of a leveled area surfaced with several inches of gravel or crushed scoria. The pads would be used for the drilling rig and related equipment, as well as an excavated, lined pit to store drilling fluids, drilled cuttings, and fluids processed during drilling. The level well pad areas required for drilling and completing operations (including reserve pits for dried cuttings) would each be approximately 350x470 feet (approximately 3.8 acres). Cut and fill slopes on the edge of the well pad would be determined on a well-by-well basis.

Well pad areas would be cleared of vegetation, stripped of topsoil, and graded to specifications in the APD (Application for Permit to Drill) submitted to the BLM. Topsoil would be stockpiled and stabilized until disturbed areas are reclaimed and re-vegetated. Excavated subsoils would be used in pad construction, with each finished well pad graded to ensure water drains away from the drill site. Erosion control at the site would be maintained through the use of BMPs (best management practices), which may include, but are not limited to, water bars, bar ditches, bio-logs, silt fences, and re-vegetation of disturbed areas.

2.3.5.4 Drilling

Following the access road construction and well pad preparation, a drilling rig would be rigged up at each well site. The time for rigging up, drilling the well, and rigging down the well is anticipated to be about 60 days. During this phase, vehicles and equipment would access the site several times a day.

Initial drilling would be vertical to a depth of approximately 10,200 feet, at which it would angle to become horizontal at 11,200 feet. Drilling would then be followed by lateral reaches into the Middle Bakken Dolomite Member target. This horizontal drilling technique would minimize surface disturbance.

For the first 2,500 feet drilled at each well, a fresh water based mud system with non-hazardous additives would be used to minimize contaminant concerns. Water would be obtained from a commercial source for this drilling stage. About 8 gallons of water would be used per foot of hole drilled, for a total of about 40,000 gallons (20,000 gallons in the hole and 20,000 gallons as working volume at the surface). After setting and cementing the near-surface casing, an oil-based mud system consisting of about 80% diesel fuel and 20% water would be used to drill the remainder of the hole.

Toxic drilling fluids would be separated from cuttings and contained in steel tanks placed on liners until they were ready for re-use. Any free fluids remaining in reserve pits would be removed and disposed of in accordance with NDIC (North Dakota Industrial Commission) rules and regulations. Cuttings generated from drilling would be deposited in reserve pits on well pads. The pits would be lined to prevent seepage and contamination of underlying soil. Prior to their use, the pits would be fenced on the three non-working sides. The access side would be fenced immediately following removal of the drilling rig in order to prevent wildlife and livestock from accessing the pit. Reserve pit cuttings may be solidified into an inert, solid mass by chemical means. The treated material could then be buried in reserve pits in accordance with NDIC rules and regulations.

2.3.5.5 Casing and Cementing

Casing and cementing methods would be used to isolate all near-surface aquifers and hydrocarbon zones encountered during drilling.

2.3.5.6 Completion and Evaluation

Once each well is drilled and cased, approximately 30 additional days would be required to complete and evaluate it. Completion and evaluation activities include cleaning out the well bore, pressure testing the casing, perforating and fracturing to stimulate the horizontal portion of the hole, and running production tubing for potential future commercial production. Fluids utilized in the completion process would be captured in either reserve pits or tanks and would be disposed of in accordance with NDIC and BLM rules and regulations. Once the well is completed, site activity and vehicle access would be reduced. If the well is determined to be successful, tank trucks (and, if appropriate, natural gas gathering lines) would transport the product to market.

2.3.5.7 Commercial Production

If commercially recoverable oil and gas resources are found at any of the proposed sites, the site(s) would become established as a production site(s). Each site would be reduced to less than two acres in size and refitted as an oil and gas production facility. Additional production equipment, including a well head pumping unit, vertical heater/treater, storage tanks (typically four 400 barrel steel tanks), and a flare/production pit would be installed. The storage tanks and heater/treater would be surrounded by a berm that would guard against possible spills. The berm would be sized to hold 100% of the capacity of the largest storage tank plus one full day's production. All permanent above ground production facilities would be painted to blend into the surrounding landscape, as determined by the BIA, based on standard colors recommended by the BLM.

Oil would be collected in the storage tanks and periodically trucked to an existing oil terminal to be sold. Produced water would also be captured in storage tanks and periodically trucked to an approved disposal site. The frequency of trucking activities for both oil resources and produced water would be dependent upon volumes and rates of production.

Large volumes of gas are not expected to be generated from these well sites. Small volumes of gas would be flared on-site in accordance with BIA's Notice to Lessees 4A and NDIC regulations, which prohibit gas flaring for more than the initial year of operation. The installation of gas-gathering or transport equipment is not included as part of the proposed project. Installation of systems to gather and market gas produced from these wells would require additional analysis under NEPA and BIA approval.

When any of the proposed wells cease to flow naturally, a pump jack would be installed. After production ceases, the well would be plugged and abandoned, and the land would be fully reclaimed in accordance with BIA and BLM requirements.

Petro Hunt would mitigate the effects of these four exploratory wells by incorporating applicable conditions, mitigation measures, and BMPs from the BLM's regulations, BLM's Gold Book (4th Edition, 2006), and applicable BLM Onshore Oil and Gas Orders, including Numbers 1, 2, and 7.

2.3.5.8 Reclamation

The reserve pit and dried cuttings would be treated, solidified, backfilled, and buried upon well completion. Other interim reclamation measures to be implemented upon well completion include reduction of cut and fill slopes, redistribution of stockpiled topsoil, and reseeded of disturbed areas. If commercial production equipment is installed, the well pads would be reduced in size to approximately 200x300 feet (1.4 acres), with the remainder of the original well pad reclaimed. Reclamation activities would include leveling, re-contouring, treating, backfill, and re-seeding. Erosion control measures would be installed as appropriate. Stockpiled topsoil would be redistributed and reseeded as recommended by the BIA.

If no commercial production developed from one or any of the proposed wells, or upon final abandonment of commercial operations, all disturbed areas would be promptly reclaimed. As part of the final reclamation process, all well facilities would be removed, well bores would be plugged with cement, and dry hole markers would be set in accordance with NDIC and BLM requirements. Both access roads and well pad areas would be re-contoured to match

topography of the original landscape. An exception to these reclamation measures may occur if the BIA approves assignment of an access road either to the BIA roads inventory or to concurring surface allottees.

2.3.6 Potential for Future Development

Development beyond the four wells discussed is not included with this proposal. Further development would be subject to applicable regulations, including 43 CFR Part 3160, and the BLM's Onshore Oil and Gas Order No. 1 – Approval of Operations on Onshore Federal and Indian Oil and Gas Leases, as would be subject to review under NEPA, as appropriate.

Chapter 3 Description of the Affected Environment and Impacts

3.1 Introduction

This chapter describes the existing conditions within the study area. The existing conditions, or affected environment, are the baseline conditions that may be affected by the proposed action. This chapter also summarizes the positive and negative direct environmental impacts of the project alternatives, as well as cumulative impacts. Indirect impacts are discussed in impact categories where relevant. Information regarding the existing environment, potential effects to the environment resulting from the proposed alternative, and avoidance, minimization, and/or mitigation measures for adverse impacts is included.

3.2 Climate, Geologic Setting, and Land Use

The proposed wells and access roads are situated geologically within the Williston basin, where the shallow structure consists of sandstones, silts and shales dating to the Tertiary Period (65 to 2 million years ago), including the Sentinel Butte and Golden Valley Formations. The underlying Bakken Formation is a well-known source of hydrocarbons; its middle member is targeted by the proposed projects. Although earlier oil/gas exploration activity within the Reservation was limited and commercially unproductive, recent advances in drilling technologies, including horizontal drilling techniques, now make accessing oil in the Bakken Formation feasible.

According to Western Regional Climate Center data collected at the Keene weather station from 1971-2000, temperatures in excess of 80 degrees Fahrenheit are common in summer months. The area receives approximately 16.0 inches of rain annually, predominantly during spring and summer. Winters in this region are cold, with temperatures often falling near zero degrees Fahrenheit. Snow generally remains on the ground from November to March, and about 32.4 inches of snow are received annually.

The topography within the project areas is primarily identified as part of the Missouri Coteau ecoregion, which consists of glaciated uplands, river breaks, valley wall side and footslopes, coulees, alluvial terraces and floodplains. The floodplains are primarily located in the bottomlands of the Missouri River.

The western and southern portions of the Fort Berthold Reservation consist of prairie grasslands and buttes. The northern and eastern areas of the Reservation provide fertile farmland. The proposed project areas are located within a predominately rural area. Land within the proposed project areas of disturbance is predominantly grasslands (87.9%) and cultivated (12.1%). ***Please refer to Figure 3-1, Land Use.*** Additional surrounding land use includes shrubland.



Figure 3-1, Land Use

3.2.1 Climate, Geologic Setting, and Land Use Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact land use.

Alternative B (Proposed Action) – Alternative B would result in the conversion of approximately 32.78 acres of land from present use to part of an exploratory oil and gas network. *Please refer to Table 3.1, Summary of Land Use Conversion.*

Well Site	Well Pad Acres	Access Road Acres	Total Acres
15-1H Well	4.03	6.56	10.59
11-1H Well	4.11	4.28	8.39
24-1H Well	4.12	1.28	5.40
19-1H Well	4.25	4.15	8.40
Total			32.78

Mineral resources would be impacted through the development of oil and gas resources at the proposed well sites, as is the nature of this project. Impacts to the geologic setting and paleontological resources are not anticipated.

3.3 Soils

The NRCS (Natural Resource Conservation Service) Soil Survey of McKenzie County dates from 2006, with updated information available online through the NRCS Web Soil Survey. There are seven soil types identified within the project impact areas. Characteristics of these soils are identified in *Table 3.2, Soils.*

Map Unit Symbol	Soil Name	Percent Slope	Composition (in upper 60 inches)			Erosion Factor ¹		Hydrologic Soil Group ²
			% sand	% silt	% clay	T	Kf	
15	Korchea loam	0 to 2	43	39	18	5	.28	B
25C	Farnuf loam	6 to 9	37	37	26	5	.28	B
41B	Williams-Bowbells loams	3 to 6	35	35	30	5	.28	B
42C	Williams loam	6 to 9	35	35	30	5	.28	B
43C	Williams-Zahl loams	6 to 9	35	35	30	5	.28	B
44D	Zahl-Williams loams	9 to 15	35	34	31	5	.28	B
442F	Zahl-Williams loams, dissected	15 to 45	35	34	31	5	.28	B

¹ Erosion Factors indicate susceptibility of a soil to sheet and rill erosion by water. Kf indicates the erodibility of material less than two millimeters in size. Values of K range from 0.02 to 0.69. Higher values indicate greater susceptibility. T Factors estimate maximum average annual rates of erosion by wind and water that will not affect crop productivity. Tons/acre/year range from 1 for shallow soils to 5 for very deep soils. Soils with higher T values can tolerate higher rates of erosion without loss of productivity.

² Hydrologic Soil Groups (A, B, C, and D) are based on estimates of runoff potential according to the rate of water infiltration under the following conditions: soils are not protected by vegetation, soils are thoroughly wet, and soils receive precipitation from long-duration storms. The rate of infiltration decreases from Group A (high infiltration, low runoff) to D (low infiltration, high runoff).

All listed soils have low susceptibility to sheet and rill erosion and can tolerate high levels of erosion without loss of productivity. Each of these soils has low runoff potential. Depth to the water table is recorded at greater than six feet for each of these soil types. None of the soils listed within the project impacts areas are susceptible to flooding or ponding.

3.3.1 Soil Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact soils.

Alternative B (Proposed Action) – Construction activities associated with the proposed well sites and associated access roads would result in soil disturbances, though impacts to soils associated with the proposed action are not anticipated to be significant. Stockpile quantities for each location were calculated using an assumed 6-inches of existing topsoil. The following identifies topsoil requirements for each site:

- *15-1H Well Site* – A minimum of 3,240 cubic yards of topsoil and 9,405 cubic yards of material for future site reclamation would be stockpiled on site.
- *11-1H Well Site* – A minimum of 3,290 cubic yards of topsoil and 13,720 cubic yards of material for future site reclamation would be stockpiled on site.
- *24-1H Well Site* – A minimum of 3,315 cubic yards of topsoil and 11,840 cubic yards of material for future site reclamation would be stockpiled on site.
- *19-1H Well Site* – A minimum of 3,430 cubic yards of topsoil and 13,240 cubic yards of material for future site reclamation would be stockpiled on site.

Based on soil data, topsoil exists in excess of 18 inches at each of the well sites, yielding sufficient quantity of topsoil for construction and reclamation activities. Topsoil and embankment stockpiles are proposed to be located on the north side of the 15-1H and 24-1H well sites and on the west side of the 11-1H and 19-1H well sites. The stockpiles have been positioned to assist in diverting runoff away from the disturbed area, thus minimizing erosion.

Soil impacts would be localized, and BMPs would be implemented to minimize these impacts. Surface disturbance caused by well development, road improvements, and facilities construction would result in the removal of vegetation from the soil surface. This can damage soil crusts and destabilize the soil. As a result, the soil surface could become more prone to accelerated erosion by wind and water. BMPs used to reduce these impacts would include the use of erosion and sediment control measures during and after construction, segregating topsoil from subsurface material for future reclamation, reseeding of disturbed areas, the use of construction equipment appropriately sized to the scope and scale of the project, ensuring the road gradient fits closely with the natural terrain, and maintaining proper drainage. According to discussions at the field on-site assessment and standard industry practices, BMPs identified in the BLM Gold Book shall be utilized to further minimize site erosion.

Another soil resources issue is soil compaction, which can occur by use of heavy equipment. When soil is compacted, it decreases permeability and increases surface runoff. This is especially evident in silt and clay soils. In addition, soils may be impacted by mixing of soil horizons. Soil compaction and mixing of soil horizons would be minimized by the previously discussed topsoil segregation.

Contamination of soils from various chemicals and other pollutants used during oil development activities is not anticipated. In the rare event that such contamination may occur, the event shall be reported to the BLM and the North Dakota Department of Health, and the procedures of the surface management agency shall be followed to contain spills and leaks.

3.4 Water Resources

The Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977, provides the authority to EPA (Environmental Protection Agency) and USACE (United States Army Corps of Engineers) to establish water quality standards, control discharges into surface and ground waters, develop waste treatment management plans and practices, and issue permits for discharges (Section 402) and for dredged or fill material (Section 404). Within the Fort Berthold Reservation, the Missouri River and Lake Sakakawea are both considered navigable waters and are therefore subject to Section 10 of the Rivers and Harbors Act of 1899.

3.4.1 Surface Water

The project areas are situated in the Great Plains region of North Dakota that borders the Badlands to the west. This is an arid area with few isolated surface water basins. The majority of the surface waters in the region are associated with the Missouri River, Lake Sakakawea, and tributaries to these water bodies. Surface water generally flows overland until draining into these systems.

All of the proposed well sites are located in the Lake Sakakawea basin, meaning surface waters within this basin drain to Lake Sakakawea. The 15-1H well site is located in the Sanish Bay Watershed and the Four Bears Bay Sub-Watershed. The 11-1, 24-1, and 19-1 well sites are located in the Antelope Creek State Wildlife Management Area Watershed and the Antelope Creek Sub-Watershed. **Please refer to Figure 3-2, Surface Water Resources.** Runoff throughout the study area is by sheetflow until collected by ephemeral and perennial streams draining to Lake Sakakawea. Surface runoff for each well site would typically travel to Lake Sakakawea via drainage patterns as follows:

- *15-1H Well Site* – Runoff from the well pad would flow southeast 0.34 miles to an unnamed tributary. From there, it would travel northeasterly 7.20 miles to Four Bears Bay on Lake Sakakawea, for a total traveled distance of 7.54 miles.
- *11-1H Well Site* – Runoff from the well pad would flow northeast into an unnamed tributary that would travel northward 1.80 miles to Antelope Creek. From there, it would travel 4.70 miles to Lake Sakakawea, for a total traveled distance of 6.50 miles.
- *24-1H Well Site* – Runoff from the well pad would flow north from the well pad into an unnamed coulee. It would flow 0.13 miles north and 0.07 miles northeast in the coulee until it reaches Antelope Creek. Once in Antelope Creek, the runoff would flow northeast 3.92 miles to Lake Sakakawea, for a total traveled distance of 4.12 miles.

- *19-1H Well Site* – Runoff from the well pad would flow northeast 0.72 miles in an unnamed tributary to Antelope Creek. Once in Antelope Creek, runoff would then flow northeast 1.18 miles to Lake Sakakawea, for a total traveled distance of 1.90 miles.

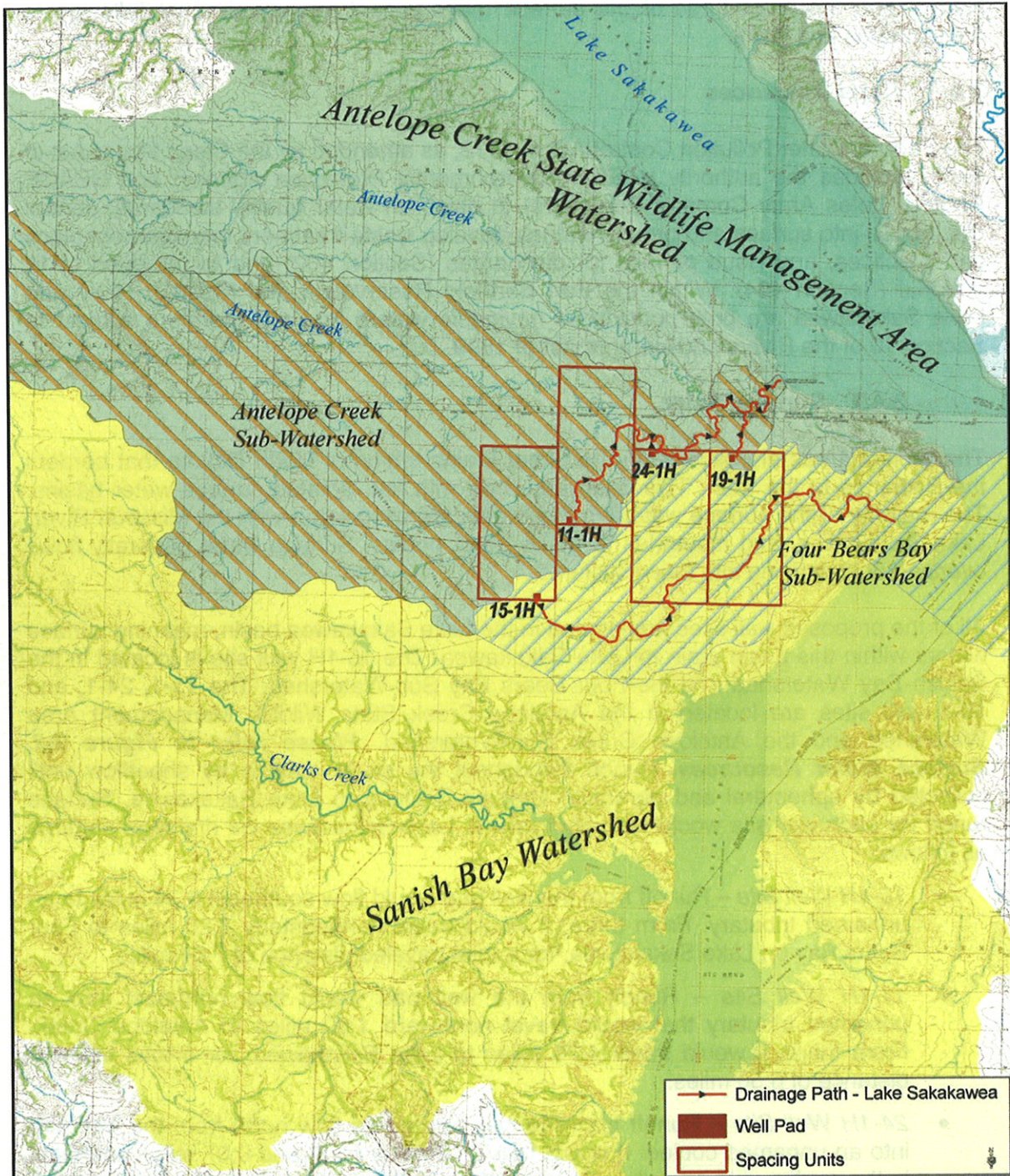


Figure 3-2, Surface Water Resources

3.4.1.1 Surface Water Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact surface water.

Alternative B (Proposed Action) – No significant impacts to surface water are expected to result from Alternative B. The proposed projects have been sited to avoid direct impacts to surface waters and to minimize the disruption of drainage patterns across the landscape. Construction site plans should contain measures to divert surface runoff around the well pad. Roadway engineering and the implementation of BMPs to control erosion would minimize runoff of sediment downhill or downstream. Alternative B is not anticipated to result in measurable increases in runoff or impacts to surface waters.

3.4.2 Ground Water

The North Dakota State Water Commission's electronic records reveal that there is one permitted well within one-mile of each of the 15-1H, 11-1H, and 24-1H well sites. There are two permitted wells within one mile of the 19-1H well site and none within one-mile of the 24-1 well site. There are no additional active or permitted water wells or groundwater-fed surface water impoundments immediately within the proposed well pad or access road areas. The New Town aquifer is located east of the proposed well sites; however, no sole source aquifers have been identified within the state of North Dakota.

Please refer to Figure 3-3, Aquifers and Groundwater Wells.

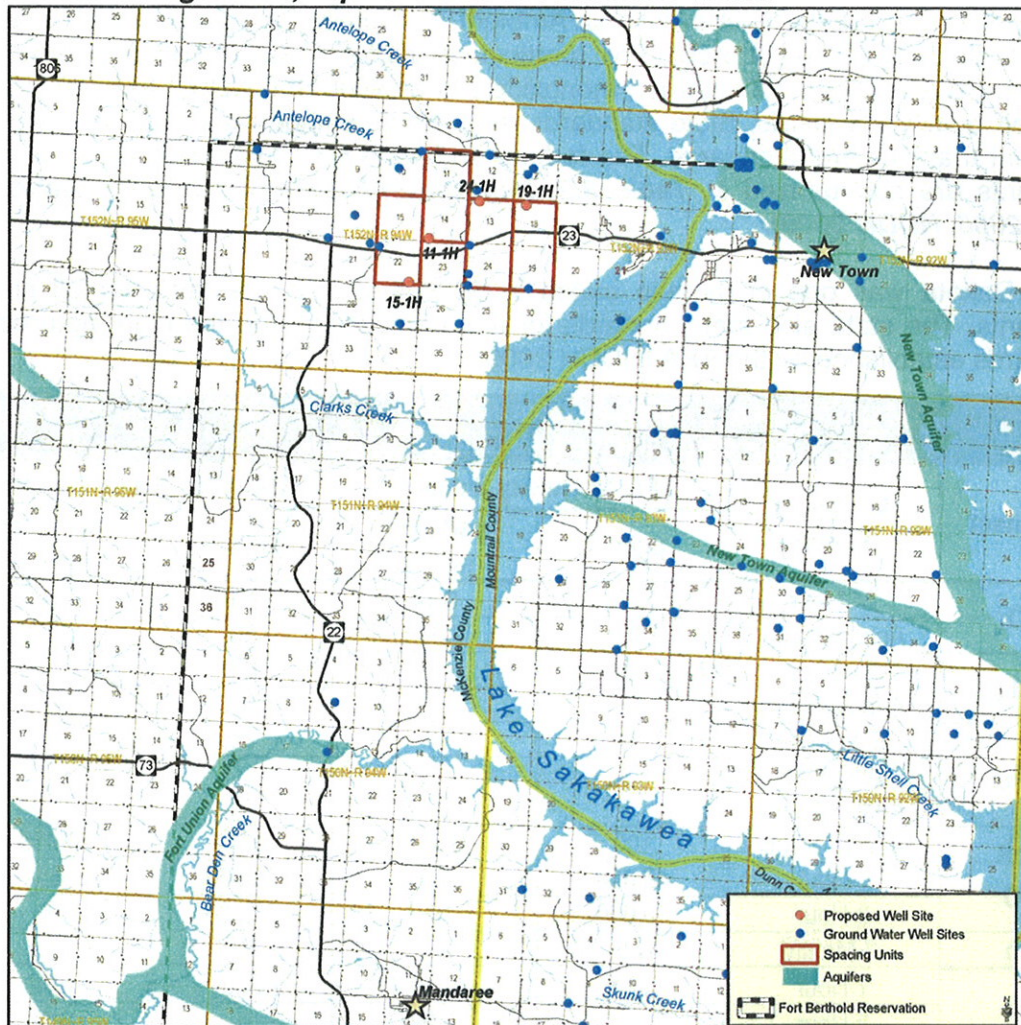


Figure 3-3, Aquifers and Groundwater Wells

3.4.2.1 Ground Water Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact groundwater.

Alternative B (Proposed Action) – No significant impacts to groundwater are expected to result from Alternative B. As required by applicable law, all proposed wells would be cemented and cased to isolate aquifers from potentially productive hydrocarbon and disposal/injection zones.

3.5 Air Quality

The Clean Air Act, as amended, requires the EPA to establish air quality standards for pollutants considered harmful to public health and the environment by setting limits on emission levels of various types of air pollutants.

The NDDH (North Dakota Department of Health) operates a network of AAQM (Ambient Air Quality Monitoring) stations. The AAQM station in Dunn Center, North Dakota is 42.0 miles southwest of the 15-1H site, 43.0 miles southwest of the 11-1H site, 43.8 miles southwest of the 24-1H site, and 43.8 miles southwest of the 19-1H site. Criteria pollutants tracked under EPA's National Ambient Air Quality Standards in the Clean Air Act include SO₂ (sulfur dioxide), PM (particulate matter), NO₂ (nitrogen dioxide), O₃ (ozone), Pb (lead), and CO (carbon monoxide). In addition, the NDDH has established state air quality standards. State standards must be as stringent as (but may be more stringent than) federal standards. The federal and state air quality standards for these pollutants are summarized in **Table 3.3, Federal and State Air Quality Standards (EPA 2006, NDDH 2009)**.

North Dakota was one of thirteen states in 2008 that met standards for all criteria pollutants. The state also met standards for fine particulates and the eight-hour ozone standards established by the EPA (NDDH 2009).

Pollutant	Averaging Period	EPA Air Quality Standard		NDDH Air Quality Standard	
		µg/m ³	parts per million	µg/m ³	parts per million
SO ₂	24-Hour	365	0.14	260	0.099
	Annual Mean	80	0.030	60	0.023
PM ₁₀	24-Hour	150	--	150	--
	Annual Mean	50	--	50	--
PM _{2.5}	24-Hour	35	--	35	--
	Weighted Annual Mean	15	--	15	--
NO ₂	Annual Mean	100	0.053	100	0.053
CO	1-Hour	40,000	35	40,000	35
	8-Hour	10,000	9	10,000	9
Pb	3-Month	1.5	--	1.5	--
O ₃	1-Hour	240	0.12	235	0.12
	8-Hour	--	0.08	--	0.08

In addition, the Fort Berthold Reservation complies with the North Dakota National Ambient Air Quality Standards and visibility protection. The Clean Air Act affords additional air quality protection near Class I areas. Class I areas include national parks greater than 6,000 acres in size, national monuments, national seashores, and federally designated wilderness areas larger than 5,000 acres designated prior to 1977. There are no Federal Class I areas³ within the project area. The Theodore Roosevelt National Park is the nearest Class I area, located approximately 35.3 miles southwest of the 15-1H site, 36.3 miles southwest of the 11-1H site, 38.0 miles southwest of the 24-1H site, and 38.5 miles southwest of the 19-1H site.

3.5.1 Air Quality Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact air quality.

Alternative B (Proposed Action) – The Fort Berthold Reservation complies with North Dakota National Ambient Air Quality Standards and visibility protection. Alternative B would not include any major sources of air pollutants. Construction activities would temporarily generate minor amounts of dust and gaseous emissions of PM, SO₂, NO₂, CO, and volatile organic compounds. Emissions would be limited to the immediate project areas and are not anticipated to cause or contribute to a violation of National Ambient Air Quality Standards. No detectable or long-term impacts to air quality or visibility are expected within the airsheds of the Fort Berthold Reservation, State, or Theodore Roosevelt National Park. No mitigation or monitoring measures are recommended.

3.6 Threatened and Endangered Species

In accordance with Section 7 of the Endangered Species Act of 1973, 50 CFR Part 402 as amended, each federal agency is required to ensure the following two criteria. First, any action funded or carried out by such agency must not be likely to jeopardize the continued existence of any federally-listed endangered or threatened species or species proposed to be listed. Second, no such action can result in the destruction or adverse modification of habitat of such species that is determined to be critical by the Secretary. An endangered species is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. A candidate species is one which may warrant listing as an endangered or threatened species, but the data are inconclusive. While candidate species are not legally protected under the Endangered Species Act, it is within the spirit of the Endangered Species Act to consider these species as having significant value and worth protecting.

The proposed action area was evaluated to determine the potential for occurrences of federally-listed threatened, endangered, and candidate species. The USFWS (United States Fish and Wildlife Service) has identified the interior least tern, whooping crane, pallid sturgeon, black footed ferret, and gray wolf as endangered species that may be found within McKenzie County. The piping plover is listed as a threatened species for McKenzie County. In addition, McKenzie County contains designated critical habitat for the piping plover adjacent to Lake Sakakawea. The Dakota skipper, a candidate

³ Federal Class I areas are generally national parks and wilderness areas.

species, is also listed for McKenzie County. Habitat requirements and other information regarding listed species for McKenzie County are as follows:

Interior Least Tern (*Sterna antillarum*)

The interior least tern nests along inland rivers rather than along the coast. The interior least tern is found in isolated areas along the Missouri, Mississippi, Ohio, Red, and Rio Grande Rivers. In North Dakota, it is sighted along the Missouri River during the summer nesting season. The interior least tern nests in sandbars or barren beaches, preferably in the middle of a river for increased safety while nesting. These birds nest close together, using safety in numbers to scare away predators.

There is no existing or potential habitat within or near the project areas. Lake Sakakawea and the Little Missouri River are located outside of the project areas at least 1.25 miles away at the closest point to the project areas.

Whooping Crane (*Grus americana*)

The whooping crane is the tallest bird in North America. In the United States, this species ranges through the Midwest and Rocky Mountain regions from North Dakota south to Texas and east into Colorado. Whooping cranes migrate through North Dakota along a band running from the south central to the northwest parts of the state. They use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting and various cropland and emergent wetlands for feeding. During migration, whooping cranes are often recorded in riverine habitats, including the Missouri River. Currently there are three wild populations of whooping cranes, yielding a total species population of about 365. Of these flocks, only one is self-sustaining.

The proposed project is located in the Central Flyway where 75 percent of confirmed whooping crane sightings have occurred. However, there is no existing or potential stopover habitat within or near the project areas. Lake Sakakawea and the Little Missouri River are located outside of the project areas at least 1.25 miles away at the closest point to the project areas.

Pallid Sturgeon (*Scaphirhynchus albus*)

The pallid sturgeon is known to exist in the Yellowstone, Missouri, middle and lower Mississippi, and Atchafalaya Rivers, and seasonally in some tributaries. In North Dakota, the pallid sturgeon is found principally in the Missouri River and upstream of Lake Sakakawea in the Yellowstone River. Dating to prehistoric times, the pallid sturgeon has become well adapted to living close to the bottom of silty river systems. According to the USFWS, its preferred habitat includes "a diversity of water depths and velocities formed by braided river channels, sand bars, sand flats, and gravel bars." Weighing up to 80 pounds, pallid sturgeons are long lived, with individuals possibly reaching 50 years of age.

There is no existing or potential habitat within or near the project areas. Habitat where the pallid sturgeon may occur, such as Lake Sakakawea, is located at least 1.25 miles away at its nearest point to the project areas.

Black-footed Ferret (*Mustela nigripes*)

The black-footed ferret historically could be found throughout the Rocky Mountains and Great Plains. In North Dakota, the black-footed ferret may potentially be present in prairie dog towns. However, they have not been confirmed in North Dakota for over 20 years and are presumed extirpated. Their preferred habitat includes areas around prairie dog towns, as they rely on prairie dogs for food and live in prairie dog burrows. Black-footed ferrets require at least an 80-acre prairie dog town to survive. No prairie dog towns were observed within the proposed well pads or access road corridors.

Gray Wolf (*Canis lupus*)

The gray wolf is the largest wild canine species in North America. It is found throughout northern Canada, Alaska, and the forested areas of Northern Michigan, Minnesota, and Wisconsin and has been re-introduced to Yellowstone National Park in Wyoming. While the gray wolf is not common in North Dakota, occasionally individual wolves do pass through the state. Historically, its preferred habitat includes biomes such as boreal forest, temperate deciduous forest, and temperate grassland. Gray wolves live in packs of up to 21 members, although some individuals will roam alone. The proposed project areas are located far from other known wolf populations and do not contain preferred habitat for suitable prey to sustain a population.

Piping Plover (*Charadrius meoldus*)

The piping plover is a small migratory shorebird. Historically, piping plovers could be found throughout the Atlantic Coast, Northern Great Plains, and the Great Lakes. Drastically reduced, sparse populations presently occur throughout this historic range. In North Dakota, breeding and nesting sites can be found along the Missouri River. Preferred habitat for the piping plover includes riverine sandbars, gravel beaches, alkali areas of wetlands, and flat, sandy beaches with little vegetation. The USFWS has identified critical habitat for the piping plover on the Missouri River system. Critical habitat includes reservoir reaches composed of sparsely vegetated shoreline beaches, peninsulas, islands composed of sand, gravel, or shale, and their interface with water bodies.

There is no existing or potential habitat within or near the project areas. Critical habitat for the piping plover along Lake Sakakawea is located at least 1.25 miles away at its nearest point to the project areas.

Dakota Skipper (*Hesperia dacotae*)

The Dakota skipper is a small butterfly with a one-inch wing span. These butterflies historically ranged from southern Saskatchewan, across the Dakotas and Minnesota, to Iowa and Illinois. The preferred habitat for the Dakota skipper consists of flat, moist bluestem prairies and upland prairies with an abundance of wildflowers.

The proposed project areas do consist of upland prairies; however, the sites lack an abundance of wildflowers such as pale purple and blanketflower for the Dakota skipper. Additionally, the project areas have been grazed and disturbed by human activity and, therefore, it is unlikely that the sites contain the high quality prairie necessary for Dakota skipper.

Lake Sakakawea and associated Missouri River habitat is located northeast of the project areas, about 2.44 miles from the 15-1H site, 3.43 miles from the 11-1H site, 1.91 miles from the 24-1H site, and 1.25 miles from the 19-1H site. There is no existing or potential habitat for the listed species within or near the project areas and none of these species were observed during field surveys performed by Kadrmass, Lee & Jackson in October 2009.

3.6.1 Threatened and Endangered Species Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact threatened or endangered species or designated critical habitat.

Alternative B (Proposed Action) – Due to a lack of potential habitat and species observances within the project areas, the proposed project may affect, but is unlikely to adversely affect, any of the listed species. The proposed project is not likely to jeopardize the continued existence of these species and is not likely to destroy or adversely modify critical habitat.

3.7 Wetlands, Wildlife and Vegetation

Biological and botanical surveys at each site were conducted by Kadrmass, Lee & Jackson in October 2009. Data gathered from these surveys, as well as through coordination with the USFWS, North Dakota Parks and Recreation Department, and North Dakota Game and Fish Department, are summarized below. The Three Affiliated Tribes Game and Fish Department was also contacted as part of project scoping.

3.7.1 Wetlands

Wetlands are defined in both the 1997 Executive Order 11990, Protection of Wetlands, and in Section 404 of the Clean Water Act of 1986, as those areas that are inundated by surface or groundwater with a frequency to support and under normal circumstances do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Three parameters that define a wetland, as outlined in the Federal Manual for Delineating Jurisdictional Wetlands (US Army Corps of Engineers, 1987) are hydric soils, hydrophytic vegetation, and hydrology. Wetlands are an important natural resource serving many functions, such as providing habitat for wildlife, storing floodwaters, recharging groundwater, and improving water quality through purification.

No wetlands or riparian areas were identified within any of the proposed well pad or access road areas during the field surveys.

3.7.1.1 Wetland Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact wetlands.

Alternative B (Proposed Action) – Due to the absence of wetlands within the proposed project areas, Alternative B would not impact wetlands.

3.7.2 Wildlife

During the field surveys, big and small game species, raptors, non-game species, as well as their potential habitats, were identified. The project areas all contain suitable habitat for antelope (*Antilocapra americana*), whitetail deer (*Odocoileus virginianus*), Eastern cottontail rabbit (*Sylvilagus transitionalis*), wild turkey (*Meleagris gallopavo*), ring-necked pheasant (*Phasianus colchicas*), golden eagle (*Aquila chrysaetos*), red tail hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), bald eagle (*Haliaeetus leucocephalus*), American badger (*Taxidea taxus*), red fox (*Vulpes vulpes*), coyote (*Canis latrans*), songbirds, black-tailed prairie dog (*Cynomys ludovicianus*), and North American porcupine (*Erethizon dorsatum*). The following wildlife and wildlife indicators were observed at each well site:

- 15-1H Well Site –active badger den and red tail hawk (**Please refer to Figure 3-4, Red Tail Hawk and Figure 3-5, Active Badger Den**)
- 11-1H Well Site – pocket gopher (*Pappogeomys bulleri*) mounds (**Please refer to Figure 3-6, Pocket Gopher Mound**)
- 24-1H Well Site – none
- 19-1H Well Site – sage grouse (*Centrocercus urophasianus*), great blue heron (*Ardea herodias*), and coyote tracks (**Please refer to Figure 3-7, Coyote Tracks on Access Road**)



Figure 3-4, Active Badger Den



Figure 3-5, Red Tail Hawk



Figure 3-6, Pocket Gopher Mound



Figure 3-7, Coyote Tracks on Access Road

Protection is provided for the bald and golden eagle, as well as other migratory birds, through the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The Bald and Golden Eagle Protection Act of 1940, 16 U.S.C. 668–668d, as amended, was written with the intent to protect and preserve bald and golden eagles, both of which are treated as species of concern within the Department of the Interior. In addition, the Migratory Bird Treaty Act (916 U.S.C. 703–711) regulates impacts to these species such as direct mortality, habitat degradation, and/or displacement of individual birds.

The bald eagle (*Haliaeetus leucocephalus*) is not common in North Dakota, but is sighted along the Missouri River during spring and fall migration periods and periodically in other places in the state such as the Devils Lake and Red River areas. There are approximately 15 breeding pairs of bald eagles in North Dakota, most of which nest along the Missouri River. Its preferred habitat includes open areas, forests, rivers, and large lakes. Bald eagles tend to use the same nest year after year, building atop the previous year's nest.

The golden eagle (*Aquila chrysaetos*) can be spotted in North Dakota throughout the badlands and along the upper reaches of the Missouri River in the western part of the state. Golden eagle pairs maintain territories that can be as large as 60 square miles and nest in high places including cliffs, trees, and human-made structures. They perch on ledges and rocky outcrops and use soaring to search for prey. Golden eagle preferred habitat includes open prairie, plains, and forested areas.

3.7.2.1 Wildlife Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact wildlife.

Alternative B (Proposed Action) – Ground clearing activities associated with the proposed project may impact individuals or suitable habitat for the wildlife species discussed above. While wildlife may use the project areas for breeding and feeding, wildlife are generally expected to adapt to changing conditions and continue to thrive. Similarly, avian species that may frequent the project areas are transitory in nature and are also generally expected to adapt to changing conditions and continue to thrive. The proposed project may affect individual wildlife species, but is not likely to adversely affect populations to result in a trend towards listing of the species. As no grouse leks were observed in project areas, timing restrictions for construction are not required.

During drilling activities, the noise, movements, and lights associated with having a drilling rig on-site should be sufficient to deter wildlife from entering the area. Immediately after the drilling rig leaves the location, reserve pits would be netted with State and Federal approved nets. These would remain in place until the closure of the reserve pits.

3.7.3 Vegetation

Botanical resources were evaluated using visual inspection. The project areas were also investigated for the presence of invasive plant species. The project areas consisted of numerous vegetative communities, due to the wide variation of ecological communities found in the region. The local topography found within and adjacent to the project areas

strongly influenced the types of vegetation found on site. The project areas occurred on farmed uplands or upland sites dominated by mixed-grass prairie. The mixed-grass prairie consisted mainly of green needlegrass (*Stipa viridula*), smooth brome (*Bromus inermis*), and Kentucky bluegrass (*Poa pratensis*). Western snowberry (*Symphoricarpos occidentalis*) and sagewort (*Artemisia frigid*) were also present at all well study areas. **Please refer to Figure 3-8, Example of Western Snowberry (24-1H Site).** Little bluestem (*Andropogon scoparius*) and prairie sand reed (*Calamovilfa longifolia*) occurred as dominant plant communities on side hills and hill tops at all project areas.



Figure 3-8, Example of Western Snowberry (24-1H Site)

Several hardwood draws and stands occurred within or adjacent to the 11-1H and 24-1H well sites. Hardwood draws mainly consisted of silver buffalo berry (*Shepherdia argentea*) and chokecherry (*Prunus virginiana*), with American elm (*Ulmus americana*), green ash (*Frazinus pennsylvanica*), and Russian olive (*Elaeagnus angustifolia*) also present at the 24-1H well site.



-1H Site)

Please refer to Figure 3-9, Example of Hardwood Draw (24-1H Site). The 19-1H site had scattered buffalo berry plants, but no hardwood draws, and was dominated by kochia within the well pad area. The 15-1H site was primarily farmed with adjacent prairieland. **Please refer to Figures 3-10 to 3-14 for representative vegetation at each project area.**



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In addition, the project areas were surveyed for the presence of noxious weeds. Of the 12 species declared noxious under the North Dakota Century Code (Chapter 63-01.0), seven are known to occur in McKenzie County. **Please refer to Table 3.4, Noxious Weed Species.** In addition, counties and cities have the option to add species to the list to be enforced only in their jurisdiction. McKenzie County has added black henbane, hoary cress, houndstongue, and yellow toadflax. No noxious weeds were observed during the field surveys.

Table 3.4
Noxious Weed Species

Common Name	Scientific Name	McKenzie County Acres
Absinth wormwood	<i>Artemisia abinthium</i> L.	43
Black henbane	<i>Hyoscyamus niger</i>	—
Canada thistle	<i>Cirsium arvense</i> (L.) Scop	4,300
Dalmation toadflax	<i>Linaria genistifolia</i> ssp. <i>Dalmatica</i>	—
Diffuse knapweed	<i>Centaurea diffusa</i> Lam	—
Field bindweed	<i>Convolvulus arvensis</i> L.	—
Hoary cress	<i>Cardaria draba</i>	—
Houndstongue	<i>Cynoglossum officinale</i>	—
Leafy spurge	<i>Euphorbia esula</i> L.	1,300
Musk thistle	<i>Carduus nutans</i> L.	2
Purple loosestrife	<i>Lythrum salicaria</i>	—
Russian knapweed	<i>Acroptilon repens</i> (L.) DC.	1
Saltcedar (tamarisk)	<i>Tamarix ramosissima</i>	1
Spotted knapweed	<i>Centaurea maculosa</i> Lam.	1
Yellow starthistle	<i>Centaurea solstitialis</i> L.	—
Yellow toadflax	<i>Linaria vulgaris</i>	—

3.7.3.1 Vegetation Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact vegetation.

Alternative B (Proposed Action) – Ground clearing activities associated with construction of the proposed wells and access roads would result in vegetation disturbance. However, the areas of proposed surface disturbances are minimal in the context of the

setting, and these impacts would be further minimized in accord with the Gold Book and other requirements. Following construction, disturbed vegetation would be reseeded in-kind, and a noxious weed management plan would be implemented to prevent the spread of noxious weeds and non-native species.

3.8 Cultural Resources

Historic properties, or cultural resources, on federal or tribal lands are protected by many laws, regulations and agreements. The *National Historic Preservation Act of 1966* (16 USC 470 *et seq.*) at Section 106 requires, for any federal, federally assisted or federally licensed undertaking, that the federal agency take into account the effect of that undertaking on any district, site, building, structure or object that is included in the National Register of Historic Places (National Register) before the expenditure of any federal funds or the issuance of any federal license. Cultural resources is a broad term encompassing sites, objects, or practices of archaeological, historical, cultural and religious significance. Eligibility criteria (36 CFR 60.6) include association with important events or people in our history, distinctive construction or artistic characteristics, and either a record of yielding or a potential to yield information important in prehistory or history. In practice, properties are generally not eligible for listing on the National Register if they lack diagnostic artifacts, subsurface remains or structural features, but those considered eligible are treated as though they were listed on the National Register, even when no formal nomination has been filed. This process of taking into account an undertaking's effect on historic properties is known as "Section 106 review," or more commonly as a cultural resource inventory.

The area of potential effect (APE) of any federal undertaking must also be evaluated for significance to Native Americans from a cultural and religious standpoint. Sites and practices may be eligible for protection under the *American Indian Religious Freedom Act of 1978* (42 USC 1996). Sacred sites may be identified by a tribe or an authoritative individual (Executive Order 13007). Special protections are afforded to human remains, funerary objects, and objects of cultural patrimony under the *Native American Graves Protection and Repatriation Act* (NAGPRA, 25 USC 3001 *et seq.*).

Whatever the nature of the cultural resource addressed by a particular statute or tradition, implementing procedures invariably include consultation requirements at various stages of a federal undertaking. The MHA Nation has designated a Tribal Historic Preservation Officer (THPO) by Tribal Council resolution, whose office and functions are certified by the National Park Service. The THPO operates with the same authority exercised in most of the rest of North Dakota by the State Historic Preservation Officer (SHPO). Thus, BIA consults and corresponds with the THPO regarding cultural resources on all projects proposed within the exterior boundaries of the Fort Berthold Reservation.

Cultural resource inventories of these well pads and access roads were conducted by personnel of Kadmas, Lee & Jackson, Inc., using a pedestrian methodology. For the Petro-Hunt (= Fort Berthold) 152-93-18B-19-1H project approximately 23 acres were intensively inventoried on September 16, 2009 (Harty 2009). No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA

reached a determination of **no historic properties affected** for this undertaking. This determination was communicated to the THPO on October 16, 2009. For the Petro-Hunt (= Fort Berthold) 152-94-14C-11-1H project approximately 22 acres were inventoried on September 17, 2009 (Shropshire 2009); BIA reached a determination of **no historic properties affected** for this undertaking, which was communicated to the THPO on November 20, 2009. For the Petro-Hunt 152-94-22 (= Fort Berthold 152-94-22D-15-1H) project approximately 26.6 acres were inventoried on September 16, 2009 (Shropshire and Harty 2009); and for the Fort Berthold 152-94-13B-24-1H project approximately 14 acres were inventoried on November 18, 2009 (Leuchtmann 2009). No historic properties were located within either of these project areas that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA reached a determination of **no historic properties affected** for these undertakings. This determination was communicated to the THPO on February 12, 2010. However, no response was received from the THPO within the allotted 30-day comment period for any of these project areas.

3.8.1 Cultural Resources Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact cultural resources.

Alternative B (Proposed Action) — Proposed well sites and access roads have been positioned to avoid impacts to cultural resources. If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA. All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.

3.9 Socioeconomic Conditions

Socioeconomic conditions depend on the character, habits, and economic conditions of people living within the proposed project area. The proposed action's effects on businesses, employment, transportation, utilities, etc., are factors that affect the social climate of a community. Other factors that distinguish the social habits of one particular area from another include the geography, geology, and climate of the area.

The Fort Berthold Reservation and McKenzie County have lower than statewide averages of per capita income and median household income. In addition, they have higher rates of unemployment and individuals living below poverty level than the state. ***Please refer to Table 3.5, Employment and Income.***

Location	Per Capita Income	Median Household Income	Unemployment Rate	Individuals Living Below Poverty Level
McKenzie County	\$14,732	\$29,342	6.6%	17.2%

Fort Berthold Reservation	\$10,291	\$26,274	11.1%	28.1%
Statewide	\$17,769	\$34,604	4.6%	11.9%

Source: U.S. Census Bureau of the Census, Census 2000.

Population decline in rural areas of North Dakota has been a growing trend as individuals move toward metropolitan areas of the state, such as Bismarck and Fargo. While McKenzie County's population has been slowly declining, the Fort Berthold Reservation has experienced a steady increase in population. American Indians are the majority population on the Fort Berthold Reservation but are the minority population in McKenzie County and the state of North Dakota. **Please refer to Table 3.6, Demographic Trends.**

Table 3.6 Demographic Trends					
Location	Population in 2000	% of State Population	% Change 1990-2000	Predominant Race	Predominant Minority
McKenzie County	5,737	0.89%	-10.1%	White	American Indian (21%)
Fort Berthold Reservation	5,915	0.92%	+9.8%	American Indian ⁴	White (26.9%)
Statewide	642,200	--	+0.5%	White	American Indian (5%)

Source: U.S. Census Bureau of the Census, Census 2000.

3.9.1 Socioeconomic Impacts/Mitigation

Alternative A (No Action) Alternative A would not impact the socioeconomic conditions in the project areas. However, Alternative A would not permit the development of oil and gas resources, which could have positive effects on employment and income through the creation of jobs and payment of leases, easement, and/or royalties to Tribal members.

Alternative B (Proposed Action) – Alternative B is not anticipated to substantially impact the socioeconomic conditions in the project areas, but it does have the potential to yield beneficial impacts on Tribal employment and income. The Three Affiliated Tribes and allotted owners of mineral interests may receive income from oil and gas development on the Fort Berthold Reservation in the form of royalties, if drilling and production are

⁴ According to the North Dakota Tourism Division, there are 10,400 enrolled members of the Three Affiliated Tribes.

successful, as well as from TERO (Tribal Employee Rights Office) taxes on construction of drilling facilities. Moreover, qualified individual tribal members may find employment through oil and gas development and increase their individual income. Employment opportunities related to oil and gas development may lessen the unemployment rate and increase income levels on the Fort Berthold Reservation. Additionally, the proposed action may result in indirect economic benefits to tribal business owners resulting from construction workers expending money on food, lodging, and other necessities.

3.10 Environmental Justice

Per Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, measures must be taken to avoid disproportionately high adverse impacts on minority or low-income communities.

With 28% of its population living below the poverty line and the majority of its population of American Indian ancestry, the Fort Berthold Reservation contains both minority and low-income communities.

3.10.1 Environmental Justice Impacts/Mitigation

Alternative A (No Action) – Alternative A would not result in environmental justice impacts.

Alternative B (Proposed Action) – Alternative B is not anticipated to result in disproportionately adverse impacts to members of the Three Affiliated Tribes. The proposed action would not require the relocation of homes or businesses, and no community disruptions are expected. Oil and gas leasing and exploration provide income to Tribal members who hold mineral interests, some of whom may benefit further from royalties on commercial production.

3.11 Infrastructure and Utilities

The Fort Berthold Reservation's infrastructure consists of roads, bridges, utilities, and facilities for water, wastewater, and solid waste.

Known utilities and infrastructure within the vicinity of the proposed projects include both paved and gravel roadways, as well as existing and proposed rural water pipelines.

3.11.1 Infrastructure and Utility Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact infrastructure or utilities.

Alternative B (Proposed Action) – Alternative B would require improvements to existing roadways, as well as construction of new roadway segments. Petro Hunt will follow McKenzie County and North Dakota Department of Transportation rules and regulations regarding rig moves and oversize/overweight loads on state and county roads used as haul roads. All contractors are required to permit their oversize/overweight loads through these entities. Petro Hunt's contractors will be required to adhere to all local, county, and

state regulations and ordinances regarding rig moves, oversize/overweight loads, and frost restrictions.

Construction of the proposed well sites may encroach upon existing water distribution lines. Prior to construction, coordination would occur with the Fort Berthold Water Authority Director to ensure minimization of potential impacts to existing water distribution pipelines.

Each well site may also require the installation of supporting electrical lines. If commercially recoverable oil and gas are discovered at any of the well sites, a natural gas gathering system may need to be installed. Other utility modifications would be identified during design and coordinated with the appropriate utility company.

Drilling operations at the proposed well sites may generate produced water. In accordance with the BLM Gold Book and BLM Onshore Oil and Gas Order Number 7, produced water would be disposed of via subsurface injection, surface discharge, lined reserve pits, or other appropriate methods that would prevent spills or seepage. Produced water may be trucked to nearby oil fields where injection wells are available. Disposal areas would be properly fenced to prevent human or animal access.

3.12 Public Health and Safety

Health and safety concerns include hydrogen sulfide (H₂S) gas⁵, hazardous materials used or generated during well installation or production, and traffic hazards associated with heavy drill rigs and tankers.

3.12.1 Public Health and Safety Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact public health and safety.

Alternative B (Proposed Action) – Project design and operational precautions would minimize the likelihood of impacts from H₂S gases, hazardous materials, and traffic, as described below.

H₂S Gases. It is unlikely that the proposed action would result in release of H₂S at dangerous concentrations; however, Petro Hunt will submit H₂S Contingency Plans to the BLM as part of the APD. These plans establish safety measures to be implemented throughout the drilling process to prevent accidental release of H₂S into the atmosphere. The Contingency Plans are designed to protect persons living and/or working within 3,000 feet of each well location and include emergency response procedures and safety precautions to minimize the potential for an H₂S gas leak during drilling activities. Satellite imagery revealed three residences within 3,000 feet of the proposed 24-1H well site, the closest of which is approximately 1,320 feet southeast of the proposed well. No residences were identified within 3,000 feet of the proposed 15-1H, 11-1H, or 19-1H well sites.

⁵ H₂S is extremely toxic in concentrations above 500 parts per million. H₂S has not been found in measurable quantities in the Bakken Formation. However, before reaching the Bakken, drilling would penetrate the Mission Canyon Formation, which is known to contain varying concentrations of H₂S.

Hazardous Materials. The EPA specifies chemical reporting requirements under the Superfund Amendments and Reauthorization Act of 1986, as amended. No materials used or generated by this project for production, use, storage, transport, or disposal are on either the Superfund list or on the EPA's list of extremely hazardous substances in 40 CFR 355.

Traffic. Safety hazards posed from increased traffic during the drilling phase are anticipated to be short-term and minimal. It is anticipated that approximately 30 to 40 trips, over the course of several days, would be required to transport the drilling rig and associated equipment to each proposed well site. If commercial operations are established following drilling activities, the pump would be checked daily and oil and water hauling activities would commence. Oil would be hauled using a semi tanker trailer, typically capable of hauling 140 barrels of oil per load. Traffic to and from the well site would depend upon the productivity of the well. A 1,000 barrel per day well would require approximately seven tanker visits per day, while a 300 barrel per day well would require approximately two visits per day⁶. Produced water would also be hauled from the site using a tanker, which would typically haul 110 barrels of water per load. The number of visits would be dependent upon daily water production⁷. Established load restrictions for state and BIA roadways would be followed and haul permits would be acquired as appropriate.

3.13 Cumulative Impacts

Cumulative impacts result from the incremental consequences of an action “when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7). Effects of an action may be minor when evaluated in an individual context, but these effects can add to other disturbances and collectively may lead to a measureable environmental change. By evaluating the impacts of the proposed action with the effects of other actions, the relative contribution of the proposed action to a projected cumulative impact can be estimated.

3.13.1 Past, Present, and Reasonably Foreseeable Actions

According to North Dakota Industrial Commission data, at the time this EA was written, there were approximately 209 active and/or proposed oil and gas wells within the Fort Berthold Reservation. ***Please refer to Figure 3-14, Existing and Proposed Oil and Gas Wells.*** The nearest known active oil and gas wells are more than one mile from each of the four proposed sites. ***Please refer to Table 3.7, Summary of Active and Proposed Wells.***

Table 3.7 Summary of Active and Proposed Wells	
Distance from Sites	Number of Active or Proposed Wells

⁶ A typical Bakken oil well initially produces at a high rate and then declines rapidly over the next several months to a more moderate rate. In the vicinity of the proposed project areas, initial rates of 500 to 1,000 BOPD (barrels of oil per day) could be expected, dropping to 200 to 400 BOPD after several months.

⁷ A typical Bakken oil well initially produces water at 200 bbls per day and then declines rapidly over the next several months to a more moderate rate. In the vicinity of the proposed project areas, initial rated of 200 BWPD (barrels of water per day) could be expected, dropping to 30 to 70 BWPD after several months.

1 mile radius	0
5 mile radius	34
10 mile radius	208
20 mile radius	890

BMPs would be implemented to minimize impacts of the proposed projects. At this time, the proposed sites would not share access roads with any other oil and gas installations. Commercial success at any new well might result in additional nearby oil/gas exploration proposals, but such developments remain speculative until APDs have been submitted to the BLM or BIA. If commercially recoverable oil and gas are discovered at any of the well sites, a natural gas gathering system may need to be installed. Currently natural gas gathering systems are proposed on the Fort Berthold Reservation but that information remains proprietary.

In addition to oil and gas activity within the project areas, the Bureau of Reclamation is in the process of expanding its water distribution system on the Fort Berthold Reservation and has identified existing and proposed water distribution lines in the vicinity of all four proposed project sites.

3.13.2 Cumulative Impacts

The proposed project is not anticipated to directly impact other oil and gas projects or expansion of the Fort Berthold Rural Water System. The following discussion addresses potential cumulative environmental impacts associated with the proposed project and other past, present, and reasonably foreseeable actions.

Geological Setting and Land Use — The proposed project, when added to past, present, or future oil and gas activity, would result in a cumulative impact to land use through the conversion of existing uses, such as grazing or native prairie, into well pads and access roads. However, well pads and access roads are generally selected to avoid sensitive land uses and to maintain the minimum impact footprint possible. In addition, the BIA views these developments to be temporary in nature as impacted areas would be restored to original conditions upon completion of oil and gas activity. When added to existing and proposed water distribution lines and/or natural gas gathering systems, no cumulative impacts are anticipated as these lines have, or would, result in a temporary disturbance and would not permanently convert existing land uses. Therefore, cumulative land use impacts are not expected to result in a significant cumulative impact.

Air Quality — Air emissions related to construction and operation of past, present, or reasonably foreseeable oil and gas wells when added to emissions resulting from the proposed project are anticipated to be a negligible cumulative impact. McKenzie County is currently well below the Ambient Air Quality Standards and it is anticipated that mobile air source toxics from truck traffic for the proposed project and other projects, as well as air emissions related to gas flaring, would be minor; therefore, the contribution of the proposed project to air emissions is not expected to be significant.

Wetlands, Wildlife, and Vegetation — The proposed project, when added to previously constructed and reasonably foreseeable oil and gas wells, may result in a cumulative impact associated with habitat fragmentation due to access road construction. However, the practice of utilizing existing roadways to the greatest extent practicable, as well as sharing access roads with future developments, would minimize the potential impacts. The proposed exploratory wells have also been sited to avoid sensitive areas such as surface water, wetlands, or riparian areas. In addition, the use of BMPs and continued reclamation are anticipated to minimize and mitigate disturbed habitat. Therefore, it is not anticipated that the proposed project, when added to past, present, and reasonably foreseeable oil and gas activity, would result in a significant cumulative impact.

Infrastructure and Utilities — The contribution of the proposed project and other projects to stress on local roadways used for hauling materials may result in a cumulative impact to local roadways. However, abiding by permitting requirements and roadway restrictions with the jurisdictional entities are anticipated to offset any cumulative impact that may result from the proposed project and other past, present, or future projects.

The proposed action has been planned to avoid impacts to resources such as wetlands, floodplains, surface water, cultural resources, and threatened and endangered species. Unavoidable impacts to these or other resources would be minimized and/or mitigated in

accordance with applicable regulations. No significant cumulative impacts are reasonably foreseen from existing or proposed activities.

3.14 Irreversible and Irrecoverable Commitment of Resources

Removal and consumption of oil or gas from the Bakken Formation would be an irreversible and irretrievable commitment of resources. Other potential resource commitments include acreage devoted to disposal of cuttings, soil lost through wind and water erosion, cultural resources inadvertently destroyed, wildlife killed during earth-moving operations or in collisions with vehicles, and energy expended during construction and operation. None of these potential impacts are expected to be significant.

3.15 Short-term Use of the Environment Versus Long-term Productivity

Short-term activities would not significantly detract from long-term productivity of the project area. The area dedicated to the access road and well pad would be unavailable for livestock grazing, wildlife habitat, or other uses. However, allottees with surface rights would be compensated for loss of productive acreage and project footprints would shrink considerably once the wells were drilled and non-working areas reclaimed and reseeded. Successful and ongoing reclamation of the landscape would reestablish the land's use for wildlife and livestock grazing, stabilize the soil, and reduce the potential for erosion and sedimentation. The primary long-term resource loss would be the extraction of oil and gas resources from the Bakken Formation, which is the purpose of this project.

3.16 Permits

The following permits or approvals will be obtained by Petro Hunt, prior to construction:

- *Application for Permit to Drill*—An APD will be submitted to the BLM. The APD will include this environmental document and additional information, including any other necessary federal, state, and tribal permits. The APD will be prepared and submitted according to BLM guidelines. BLM approval of the APD will be required prior to construction of the proposed exploratory wells.

3.17 Environmental Commitments/Mitigation

The following commitments have been made by Petro Hunt:

- Topsoil would be segregated and stored on-site to be used in the reclamation process.
- BMPs will be implemented to minimize wind and water erosion of soil resources. Soil stockpiles will be positioned to help divert runoff around the well pad.
- Well sites and access roads will avoid surface waters.
- The reserve pit would be located away from areas of shallow ground water and have a synthetic liner to prevent potential leaks. All spills or leaks of chemicals and other pollutants will be reported to the BLM and North Dakota Department of

Health. The procedures of the surface management agency shall be followed to contain leaks or spills.

- All proposed wells will be cemented and cased to isolate aquifers from potentially productive hydrocarbon and disposal/injection zones.
- Wetlands and riparian areas would be avoided.
- Disturbed vegetation would be re-seeded in kind upon completion of the project. Additionally, a noxious weed management plan would be implemented.
- Well sites and access roads would avoid impacts to cultural resources. If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA.
- Access roads would be located at least fifty feet away from identified cultural resources. The boundaries of these fifty-foot "exclusion zones" would be pin-flagged as an extra measure to ensure that inadvertent impacts to cultural resources are avoided.
- All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.
- Petro Hunt will ensure all contractors working for the company will adhere to all local, county, and state regulations and ordinances regarding rig moves, oversize/overweight loads, and frost law restrictions.
- Prior to construction, Petro Hunt will coordinate with the Fort Berthold Water Authority Director to ensure minimization of impacts to existing water distribution pipelines.
- Utility modifications would be identified during design and coordinated with the appropriate utility company.
- Disposal areas would be properly fenced to prevent human or animal access.
- H₂S Contingency Plans for each well site will be submitted to the BLM as part of the APD.
- Established load restrictions for state and BIA roadways would be followed and haul permits would be acquired as appropriate.
- Suitable mufflers would be put on all internal combustion engines and certain compressor components to mitigate noise levels.
- Well sites and associated facilities would be painted in colors to allow them to better blend in with the natural background color of the surrounding landscape.

Chapter 4 Preparers and Agency Coordination

4.1 Introduction

This chapter identifies the names and qualifications of the principal people contributing information to this EA. In accordance with Part 1502.6 of the CEQ (Council on Environmental Quality) regulations for implementing the National Environmental Policy Act, the efforts of an interdisciplinary team comprising technicians and experts in various fields were required to accomplish this study.

This chapter also provides information about consultation and coordination efforts with agencies and interested parties, which has been ongoing throughout the development of this EA.

4.2 Preparers

Kadrmass, Lee & Jackson, Inc. prepared this EA under a contractual agreement between Petro Hunt, LLC and Kadrmass, Lee & Jackson, Inc. A list of individuals with the primary responsibility for conducting this study, preparing the documentation, and providing technical reviews is contained in **Table 4.1, Preparers**.

Affiliation	Name	Title	Project Role
Bureau of Indian Affairs	Marilyn Bercier	Regional Environmental Scientist	Review of Draft EA and recommendation to Regional Director regarding FONSI or EIS
	Mark Herman	Environmental Engineer	
Petro Hunt, LLC	Don Nordquist	CPL	Project development, document review
Kadrmass, Lee & Jackson, Inc.	Shanna Braun	Environmental Planner	Agency coordination, impact assessment, primary author
	Steve Czczok	Environmental Scientist	Field resources surveys
	Jennifer Harty	Principal Investigator	Cultural resources surveys
	Jerry Reinisch	Environmental Scientist	Field resource surveys
	Skip Skattum	GIS Analyst	Impact assessment, exhibit creation

4.3 Agency Coordination

To initiate early communication and coordination, an early notification package to tribal, federal, state, and local agencies and other interested parties was distributed on October 29, 2009. This scoping package included a brief description of the proposed project, as well as a location map. An updated scoping letter with a modified location for the 15-1H well site was distributed on December 30, 2009. Pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, a solicitation of views was requested to ensure that social, economic, and environmental effects were considered in the development of this project. **Appendix A contains Agency Scoping Materials.**

At the conclusion of the 30-day comment periods, a total of 17 responses were received. These comments provide valuable insight into the evaluation of potential environmental impacts. The

comments were referenced and incorporated where appropriate within the environmental impact categories addressed in this document. **Appendix B contains Agency Scoping Responses.**

Chapter 5 References

- "Bald Eagle Fact Sheet: Natural History, Ecology, and History of Recovery." U.S. Fish & Wildlife Service. 9 Dec. 2008. U.S. Department of Interior, U.S. Fish & Wildlife Service, Midwest Region. 17 Aug. 2009. <<http://www.fws.gov/midwest/eagle/recovery/biologue.html>>.
- "Bald Eagle Population Size." U.S. Fish & Wildlife Service. 12 Nov. 2008. U.S. Department of Interior, U.S. Fish & Wildlife Service, Midwest Region. 17 Aug. 2009. <<http://www.fws.gov/midwest/eagle/population/index.html>>.
- "The Cranes Status Survey and Conservation Action Plan Whooping Crane (*Grus americana*)." U.S. Geological Survey Northern Prairie Wildlife Research Center. 3 Aug. 2006. U.S. Department of Interior, U.S. Geological Survey, Northern Prairie Wildlife Research Center. 17 Aug. 2009. <<http://www.npwrc.usgs.gov/resource/birds/cranes/grusamer.htm>>.
- "Fact Sheet: Pallid Sturgeon (*Scaphirhynchus albus*)." U.S. Fish & Wildlife Service. 29 July 2009. U.S. Department of Interior, U.S. Fish & Wildlife Service, Midwest Region. 17 Aug. 2009. <http://www.fws.gov/midwest/endangered/fishes/palld_fc.html>.
- "Fort Berthold Reservation: Home of the Three Affiliated Tribes." Fargo Forum. 21 Aug. 2009. <<http://legacy.inforum.com/specials/DyingTongues/graphics/demographics.pdf>>.
- Geological Survey Staff. 17 Dec. 2009. USGS Digital Elevation Models for North Dakota. U.S. Department of Interior, U.S. Geological Survey. Available URL: <<http://www.nd.gov/gis/>>.
- . 16 Aug. 2009. USGS Hydrography Dataset for North Dakota. U.S. Department of Interior, U.S. Geological Survey. Available URL: <<http://nhd.usgs.gov/>>.
- "Golden Eagle." National Geographic. 17 Aug. 2009. <<http://animals.nationalgeographic.com/animals/birds/golden-eagle.html>>.
- "Gray Wolves in the Northern Rocky Mountains." U.S. Fish & Wildlife Service. 24 Aug. 2009. U.S. Department of Interior, U.S. Fish & Wildlife Service, Mountain-Prairie Region. 25 Aug. 2009. <<http://www.fws.gov/mountain-prairie/species/mammals/wolf/>>.
- Harty, Jennifer L., and Michael Shropshire. 2009. Petro-Hunt 152-93-18B-19-1H Well Pad and Access Road: A Class III Cultural Resource Inventory in McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck.
- "Hawks, Eagles, and Falcons of North Dakota." U.S. Geological Survey Northern Prairie Wildlife Research Center. 3 Aug. 2006. U.S. Department of Interior, U.S. Geological Survey, Northern Prairie Wildlife Research Center. 17 Aug. 2009. <<http://www.npwrc.usgs.gov/resource/birds/hawks/intro.htm>>.
- "Interior Least Tern (*Sterna antillarum athalassos*)." Texas Parks and Wildlife. 2 June 2009. Texas Parks and Wildlife. 17 Aug. 2009. <<http://www.tpwd.state.tx.us/huntwild/wild/species/leasttern/>>.

“Least Tern (Interior Population).” U.S. Fish & Wildlife Service. 29 July 2009. U.S. Department of Interior, U.S. Fish & Wildlife Service, Midwest Region. 18 Aug. 2009. <<http://www.fws.gov/midwest/Endangered/birds/tern.html>>.

“Least Tern (*Sterna antillarum*).” U.S. Fish & Wildlife Service. 18 Dec. 2008. U.S. Department of Interior, U.S. Fish & Wildlife Service, North Dakota Field Office. 18 Aug. 2009. <http://www.fws.gov/northdakotafieldoffice/endspecies/species/least_tern.htm>.

Leuchtman, Amy. 2010. Fort Berthold 152-94-13B-24-1H Well Pad and Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck.

“Major Research Gives Insight into the Needs of Whooping Cranes.” GBRA. 29 April 2009. Guadalupe-Blanco River Authority. 18 Dec. 2009. <<http://www.gbra.org/News/2009042901.aspx>>.

North Dakota Agricultural Experiment Station. 2006. Soil Survey for McKenzie County, North Dakota. U.S. Department of Agriculture, Soil Conservation Service. U.S. Government Printing Office.

North Dakota Department of Health. Annual Report: North Dakota Air Quality Monitoring Data Summary 2008. North Dakota Department of Health, Bismarck: June 2009.

North Dakota State Water Commission Staff. 18 Dec. 2009. Ground and Survey Water Data Query. State of North Dakota, State Water Commission. Available URL: <<http://www.swc.state.nd.us/4dlink2/4dcgi/wellsearchform/Map%20and%20Data%20Resources>>.

Northern Prairie Wildlife Research Center. 24 Aug. 2006. Ecoregions of North Dakota and South Dakota. 17 Dec. 2009. <<http://www.npwrc.usgs.gov/resource/habitat/ndsdeco/nodak.htm>>.

“Noxious Weed List Survey 2007.” North Dakota Department of Agriculture. North Dakota Department of Agriculture. 17 Dec.. 2009. <<http://www.agdepartment.com/PDFFiles/NoxiousWeedListSurvey2007.pdf>>.

“Piping Plover.” U.S. Fish & Wildlife Service. U.S. Department of Interior, U.S. Fish & Wildlife Service, Mountain-Prairie Region. 18 Dec. 2009.<<http://www.fws.gov/mountainprairie/species/birds/pipingplover/>>.

Shropshire, Michael. 2009. Petro-Hunt 152-94-14C-11-1H Well Pad and Access Road: A Class III Cultural Resource Inventory in McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck.

Shropshire, Michael, and Jennifer L. Harty. 2009. Petro-Hunt 152-94-22 Well Pad and Access Road: A Class III Cultural Resource Inventory in McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck.

Soil Survey Staff. 18 Dec. 2009. Spatial and Tabular Data of the Soil Survey for McKenzie County, North Dakota. U.S. Department of Agriculture, Natural Resources Conservation Service. Available URL: <<http://soildatamartnrcs.usda.gov/>>.

United States. "Whooping Crane Recovery Plan Revised." U.S. Fish & Wildlife Service. 29 May 2007. <http://www.fws.gov/mountainprairie/pressrel/WO_717_Whooping_crane_recovery_planpr.pdf >.

U.S. Census Bureau. 18 Dec. 2009. <<http://www.census.gov/>>

USDA Natural Resources Conservation Service. 11 November 2009. Web Soil Survey. 22 January 2010. <<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>>.

U.S. Fish & Wildlife Service—North Dakota Field Office. 14 July 2009. County Occurrence of Endangered, Threatened, and Candidate Species and Designated Critical Habitat in North Dakota. 18 Dec. 2009. <http://www.fws.gov/northdakotafieldoffice/county_list.htm>.

Appendix A
Agency Scoping Materials



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E.
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

NOV 20 2009

Perry 'No Tears' Brady, THPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Brady:

We have considered the potential effects on cultural resources of an oil well pad in McKenzie County, North Dakota. Approximately 22 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for this undertaking. Catalogued as **BIA Case Number AAO-1620/FB/09**, the proposed undertaking, location, and project dimensions are described in the following report:

Shropshire, Michael
(2009) Petro-Hunt 152-94-14C-11-1H Well Pad and Access Road: A Class III Cultural Resource Inventory in McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck.

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. The Standard Conditions of Compliance will be adhered to.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

Regional Director

Enclosure

cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E.
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

FEB 12 2010

Perry 'No Tears' Brady, THPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Brady:

We have considered the potential effects on cultural resources of two oil well pads and access roads in Dunn and McKenzie Counties, North Dakota. Approximately 40.6 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. One archaeological site (32MZ2051) was located that may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for these undertakings, as site 32MZ2051 will be avoided. Catalogued as **BIA Case Number AAO-1620/FB/09**, the proposed undertakings, locations, and project dimensions are described in the following reports:

Leuchtman, Amy
(2010) Fort Berthold 152-94-13B-24-1H Well Pad and Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck.

Shropshire, Michael, and Jennifer L. Harty
(2009) Petro-Hunt 152-94-22 Well Pad and Access Road: A Class III Cultural Resource Inventory in McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck.

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. The Standard Conditions of Compliance will be adhered to.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

Regional Director

Enclosures

cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E.
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

OCT 16 2009

Perry 'No Tears' Brady, THPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Brady:

We have considered the potential effects on cultural resources of an oil well pad in McKenzie County, North Dakota. Approximately 23 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (16 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for this undertaking. Catalogued as **BIA Case Number AAO-1620/FB/09**, the proposed undertaking, location, and project dimensions are described in the following report:

Harty, Jennifer L., and Michael Shropshire
(2009) Petro-Hunt 152-93-18B-19-1H Well Pad and Access Road: A Class III Cultural Resource Inventory in McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck.

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. The Standard Conditions of Compliance will be adhered to.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

Regional Director

Enclosure

cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency

October 29, 2009

<<NAME>>
<<ADDRESS>>
<<CITY>><<STATE>><<ZIP>>

**Re: Up to Four Proposed Oil and Gas Exploratory Wells
Fort Berthold Reservation
McKenzie County, North Dakota**

Dear <<NAME>>,

On behalf of Petro Hunt, LLC, Kadmas, Lee & Jackson, Inc. is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM of the development, drilling, and completion of four exploratory oil and gas wells on the Fort Berthold Reservation. These well sites are proposed to be positioned in the following locations:

- NW ¼ Section 18, T152N, R93W
- NW ¼ Section 13, T152N, R94W
- SW ¼ Section 14, T152N, R94W
- SW ¼ Section 22, T152N, R94W

Please refer to the enclosed project location map.

The well sites have been positioned to utilize existing roadways for access to the extent possible. The drilling of these well sites is proposed to begin as early as Spring 2010.

To ensure that social, economic, and environmental effects are considered in the development of this project, we are soliciting your views and comments on the proposed development of this project, pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property that your department may own, or have an interest in, located within the project area. We would also appreciate being made aware of any proposed development your department may be contemplating in the area of the proposed project. Any information that might help us in our study would be appreciated.

It is requested that any comments or information be forwarded to our office on or before **November 30, 2009**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the necessary environmental documentation.

If you would like further information regarding this project, please contact me at (218) 790-4476. Thank you for your cooperation.

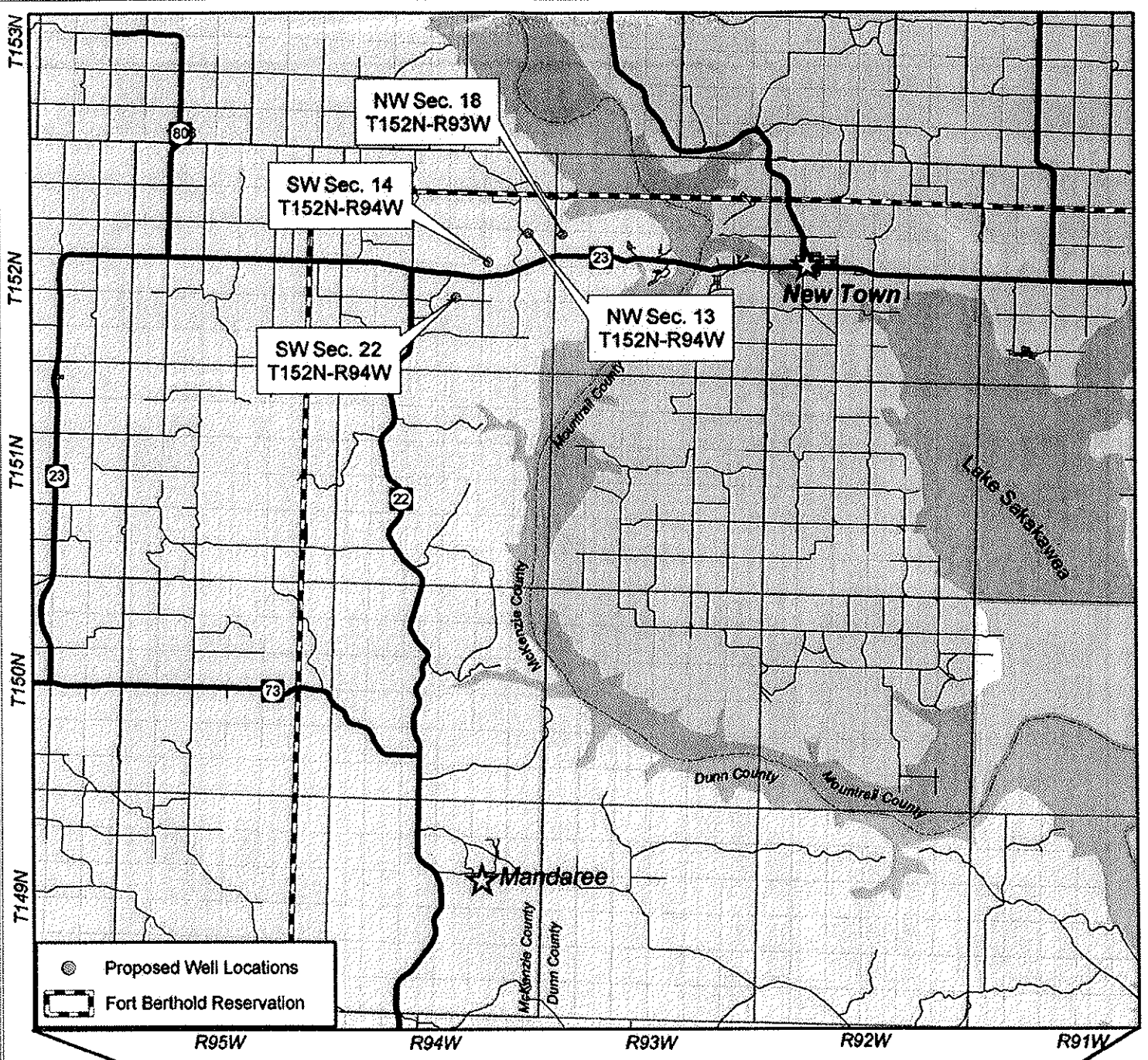
Sincerely,

Kadrmass, Lee & Jackson, Inc.

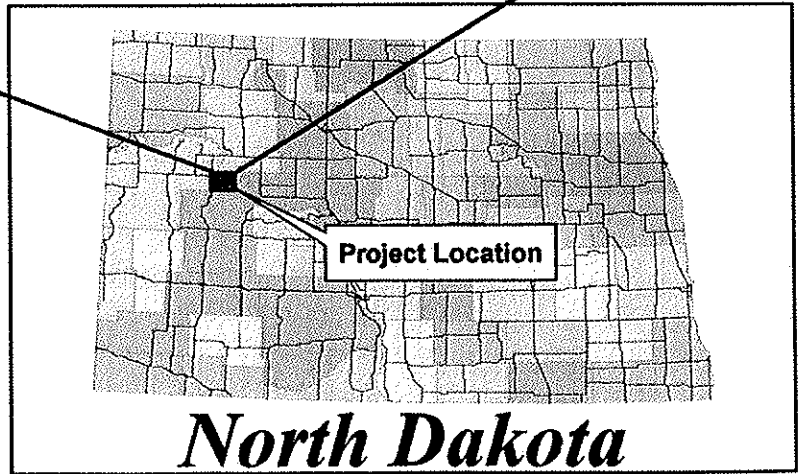
A handwritten signature in black ink, appearing to read 'Shanna Braun', written in a cursive style.

Shanna Braun
Environmental Planner

Enclosure (Map)



*Petro-Hunt, LLC
Proposed Oil & Gas
Exploratory Wells*



North Dakota



Save as new file for each project and edit accordingly with project specific contacts

SOV MASTER LIST

C>Title	First	Last	Title	Department	Agency	Address	City	State	Zip
Mr.	Merl	Paaverud	State Historic Preservation Officer		State Historical Society	612 E. Boulevard Ave.	Bismarck	ND	58505-0630
Sr		or Madam	Chief Missile Engineer	5 CES/SCOE	Minot Air Force Base	320 Peacemaker Place	Minot AFB	ND	58705
Ms.	Mike	Black	Acting Regional Director		Bureau of Indian Affairs	115 4th Ave. SE	Aberdeen	SD	57401
Mr.	Richard	Nelson	Chief, Resource Management		Dakotas Area Office	PO Box 1017	Bismarck	ND	58502-1017
Mr.	Steve	Cheneauer	Manager		Bismarck Airports District Office	2301 University Drive, Bldg. 23B	Bismarck	ND	58504
Mr.	Dan	Cimarosti	Manager		US Army Corps of Engineers	1513 S. 12th St.	Bismarck	ND	58504
Mr.	Charles	Sorensen	Natural Resource Specialist		US Army Corps of Engineers	PO Box 527	Riverdale	ND	58565
Ms.	Candace	Gorton	Chief, Env., Economics, & Cultural Resource Section		US Army Corps of Engineers	109 S. 15th St.	Omaha	NE	68102-1618
Mr.	John	Glover	Acting State Conservationist		US Department of Agriculture	PO Box 1458	Bismarck	ND	58502-1458
Mr.	Gerald	Paulson	Director, Transmission Line Substations		US Department of Energy	PO Box 1173	Bismarck	ND	58502-1173
Mr.	Larry	Svoboda	Director		Western Area Power Admin.	1595 Wynkoop Street	Denver	CO	80202-1129
Mr.	Richard	Clark	Wetlands Coordinator		US Environment Protection Agency	1595 Wynkoop Street	Denver	CO	80202-1129
Mr.	Jeffrey	Towner	Field Supervisor		US Environment Protection Agency	3425 Milham Ave.	Bismarck	ND	58501
Ms.	Cheryl	Kulas	Executive Director		US Fish & Wildlife Service	600 E. Blvd. Ave.	Bismarck	ND	58505-0300
Mr.	Greg	Wiche	Director		Indian Affairs Commission	1st Floor, Judicial Wing, Rm 117	Bismarck	ND	58501
Mr.	L. David	Glatt	Chief		US Geological Survey	821 E. Interstate Ave.	Bismarck	ND	58501
Mr.	Mike	McKenna	Chief		ND Department of Health	916 E. Divide Ave., 4th floor	Bismarck	ND	58501
Mr.	Doug	Prohal	Director		Conservation & Communication Division	100 Bismarck Expressway	Bismarck	ND	58501-5095
Mr.	Dale	Frink	State Engineer		ND Parks & Recreation Dept.	1600 E. Century Ave., Suite 3	Bismarck	ND	58503-0649
Mr.	Bili	Boyd	Construction Manager		ND State Water Commission	900 E. Blvd. Ave.	Bismarck	ND	58505-0880
Mr.	Doug	Dixon	General Manager		Midcontinent Cable Company	719 Memorial Hwy	Bismarck	ND	58501
Mr.	George	Berg	Manager		Montana Dakota Utilities	PO Box 1406	Williston	ND	58802-1406
Mr.	Ken	Miller	Manager		NoDak Electric Coop., Inc.	Box 13000	Grand Forks	ND	58208-3000
Mr.	Ray	Christenson	Manager/CEO		Northern Border Pipeline Company	13710 FNB Parkway	Omaha	NE	68154-5200
Mr.	David C.	Scheltoph	CEO		Southwest Water Authority	4665 2nd St. W.	Dickinson	ND	58602-1038
Sr		or Madam	Manager		West Plains Electric Coop., Inc.	PO Box 1038	Dickinson	ND	58108-2747
Sr		or Madam	Manager		Xcel Energy	PO Box 2747	Fargo	ND	58636
Sr		or Madam	Manager		Upper Missouri G. & T. Electric Cooperative	8860 Highway 200	Halliday	ND	58640
Sr		or Madam	Manager		McKenzie Electric Cooperative, Inc.	10686 Highway 200	Killdeer	ND	58640
Mr.	Walt	Peterson	District Engineer		Roughridr Electric Cooperative	1173 3rd Ave W	Dickinson	ND	58601-0998
Mr.	Larry	Gangle	District Engineer		ND Department of Transportation	605 Dakota Parkway West	Williston	ND	58601-3009
Mr.	Lonny	Bagley	Field Office Manager		ND Department of Transportation	1700 3rd Ave West, Suite 101	Dickinson	ND	58601
Mr.	Michael	Nash	Assistant Field Office Manager		Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Mr.	Myra	Pearson	Tribal Chairman		Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Mr.	Ron	Brady	Tribal Chairman		Sisseton-Wahpeton Sioux Tribe	PO Box 509	Sisseton	SD	57262-0267
Mr.	Marcus	Leavings	Tribal Chairman		Spirit Lake Sioux Tribe	PO Box 359	FL Totten	ND	58325
Mr.	Damon	Williams	Tribal Chairman		Three Affiliated Tribes	PO Box D	Fort Yates	ND	58763
Mr.	Fred	Brugh	Director		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Ms.	V. Judy	Stras	Representative		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Mr.	Scott	Eagle	Representative		Three Affiliated Tribes	PO Box 900	Belcourt	ND	58763
Mr.	Mervin	Packineau	Representative		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Frank	Whitecalf	Representative		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Berry	Benson	Representative		Three Affiliated Tribes	PO Box 468	Parshall	ND	58770
Mr.	Todd	Hall	Operations Manager		Three Affiliated Tribes	404 Frontage Road	Halliday	ND	58763
Mr.	Roger	Nordquist	Operations Manager		Three Affiliated Tribes	70879 E Ave NW	New Town	ND	58636
Mr.	Don	Hovda	Operations Manager		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Ms.	Frances M.	Olson	Auditor		Reservation Telephone Cooperative	PO Box 68	Parshall	ND	58700-0068
					Petro Hunt, LLC	PO Box 935	Bismarck	ND	58502-0935
					McKenzie County	PO Box 543	Ward City	ND	58854-0543

SOV MASTER LIST

****Save as new file for each project and edit accordingly with project specific contacts****

C Title	First	Last	Title	Department	Agency	Address	City	State	Zip
Mr.	Richard C.	Cayko	Chair	County Commission	McKenzie County	PO Box 543	Waiford City	ND	58854-0543

December 30, 2009

<<NAME>>
<<ADDRESS>>
<<CITY>><<STATE>><<ZIP>>

**Re: Up to Four Proposed Oil and Gas Exploratory Wells
Fort Berthold Reservation
McKenzie County, North Dakota**

Dear <<NAME>>,

On behalf of Petro Hunt, LLC, Kadrmas, Lee & Jackson, Inc. is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM of the development, drilling, and completion of four exploratory oil and gas wells on the Fort Berthold Reservation. These well sites are proposed to be positioned in the following locations:

- NW ¼ Section 18, T152N, R93W
- NW ¼ Section 13, T152N, R94W
- SW ¼ Section 14, T152N, R94W
- SE ¼ Section 22, T152N, R94W

Please refer to the enclosed project location map.

The well sites have been positioned to utilize existing roadways for access to the extent possible. The drilling of these well sites is proposed to begin as early as Spring 2010.

You were originally contacted regarding this project in late October 2009. However, the well in Section 22, T152N, R94W was described as being located in an incorrect portion of that section. As such, your input regarding the updated location of this well is being solicited.

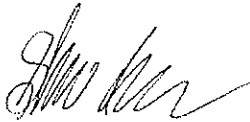
A copy of your agency's response to the original scoping letter is enclosed. Please notify us if you have any corrections or additions to that response based on the well's current location in the SE ¼ of Section 22, T152N, R94W.

It is requested that any comments or information be forwarded to our office on or before **January 29, 2010**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the necessary environmental documentation.

If you would like further information regarding this project, please contact me at (218) 790-4476. Thank you for your cooperation.

Sincerely,

Kadrmass, Lee & Jackson, Inc.

A handwritten signature in black ink, appearing to read 'Shanna Braun', written in a cursive style.

Shanna Braun
Environmental Planner

Enclosure (Map)

December 30, 2009

<<NAME>>
<<ADDRESS>>
<<CITY>><<STATE>><<ZIP>>

**Re: Up to Four Proposed Oil and Gas Exploratory Wells
Fort Berthold Reservation
McKenzie County, North Dakota**

Dear <<NAME>>,

On behalf of Petro Hunt, LLC, Kadrmas, Lee & Jackson, Inc. is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM of the development, drilling, and completion of four exploratory oil and gas wells on the Fort Berthold Reservation. These well sites are proposed to be positioned in the following locations:

- NW ¼ Section 18, T152N, R93W
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- SW ¼ Section 14, T152N, R94W
- SE ¼ Section 22, T152N, R94W

Please refer to the enclosed project location map.

The well sites have been positioned to utilize existing roadways for access to the extent possible. The drilling of these well sites is proposed to begin as early as Spring 2010.

You were originally contacted regarding this project in late October 2009. However, the well in Section 22, T152N, R94W was described as being located in an incorrect portion of that section. As such, your input regarding the updated location of this well is being solicited.

We did not receive input from your agency in the initial scoping process. Please notify us if you have any comments on the well's current location in the SE ¼ of Section 22, T152N, R94W.

It is requested that any comments or information be forwarded to our office on or before **January 29, 2010**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the necessary environmental documentation.

If you would like further information regarding this project, please contact me at (218) 790-4476. Thank you for your cooperation.

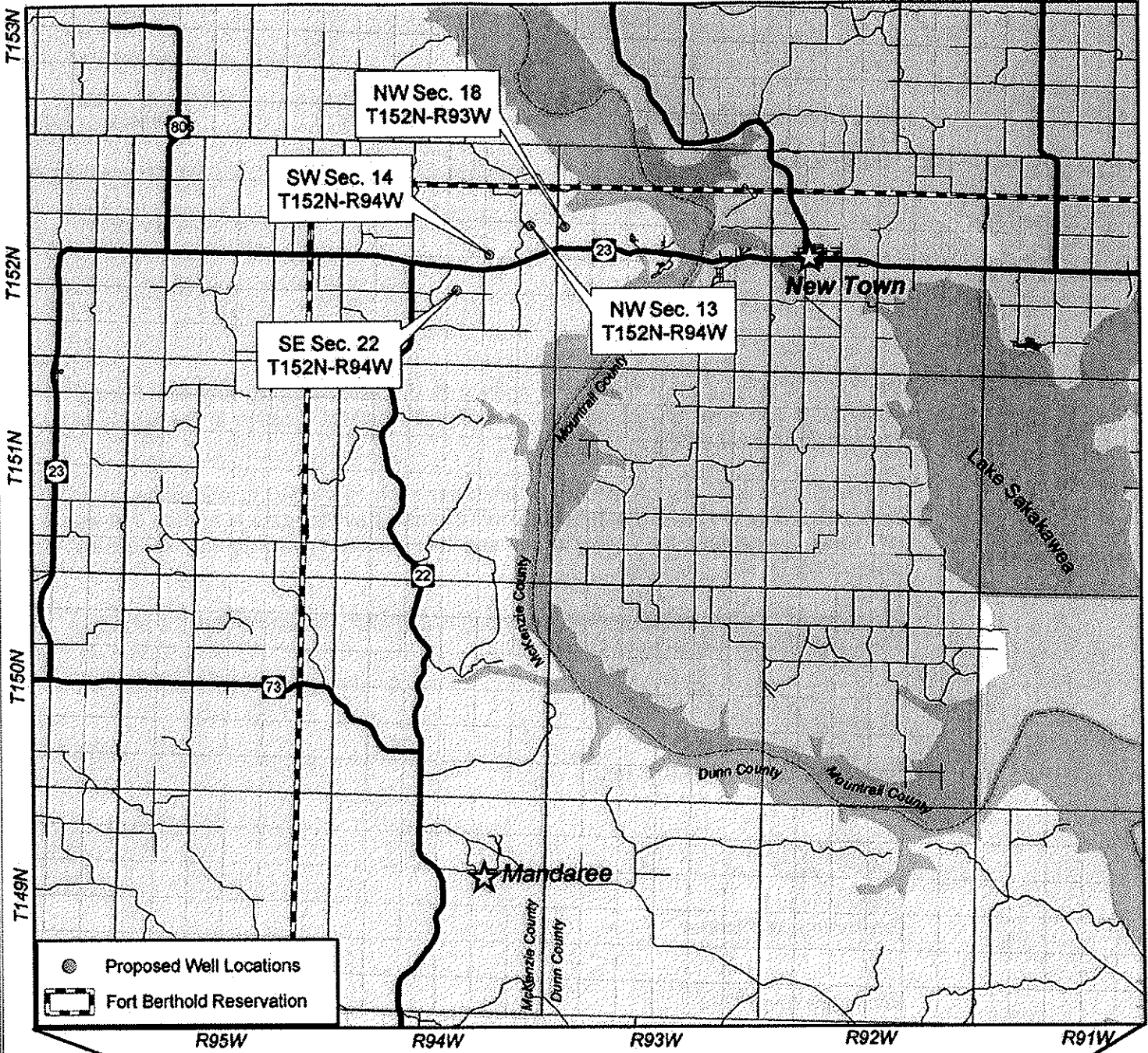
Sincerely,

Kadmas, Lee & Jackson, Inc.

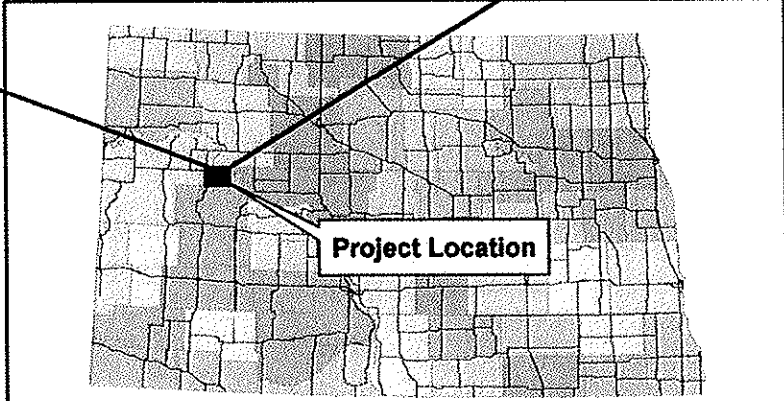


Shanna Braun
Environmental Planner

Enclosure (Map)



*Petro-Hunt, LLC
Proposed Oil & Gas
Exploratory Wells*



North Dakota



Save as new file for each project and edit accordingly with project specific contacts

SOV MASTER LIST

CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip
Mr. Merf	Paavend	or Madam	State Historic Preservation Officer	5 CESC/EOE	State Historical Society	1612 E. Boulevard Ave.	Bismarck	ND	58505-0830
Ms. Mike	Black		Chief Missile Engineer		Minot Air Force Base	320 Peacekeeper Place	Minot AFB	ND	58705
Mr. Richard	Nelson		Acting Regional Director	Dakotas Area Office	Bureau of Indian Affairs	115 4th Ave. SE	Aberdeen	SD	57401
Mr. Steve	Obernauer		Chief, Resource Management	Bismarck Airports District Office	Federal Aviation Administration	PO Box 1017	Bismarck	ND	58502-1017
Mr. Dan	Cimarosti		Manager	ND Regulatory Office	US Army Corps of Engineers	2301 University Drive, Bldg 238	Bismarck	ND	58504
Mr. Charles	Sorensen		Natural Resource Specialist	Riverdale Field Office	US Army Corps of Engineers	1513 S. 12th St.	Bismarck	ND	58504
Ms. Candace	Gortori		Chief, Env., Economics, & Cultural Resource Section	Omaha District	US Army Corps of Engineers	PO Box 527	Riverdale	ND	58565
Mr. John	Glover		Acting State Conservationist	Natural Resources Conservation Service	US Department of Agriculture	106 S. 18th St.	Omaha	NE	68102-1618
Mr. Gerald	Paulson		Director, Transmission Line Substations	ND Maintenance Office	US Department of Energy	PO Box 1488	Bismarck	ND	58502-1488
Mr. Larry	Svoboda		Director	NEPA Program, Region 8	Western Area Power Admin.	PO Box 1773	Bismarck	ND	58502-1173
Mr. Richard	Clark		Wellands Coordinator	Region 8, EPR-EP	US Environment Protection Agency	1595 Wynkoop Street	Denver	CO	80202-1129
Mr. Jeffrey	Towner		Field Supervisor	ND Field Office	US Environment Protection Agency	1595 Wynkoop Street	Denver	CO	80202-1129
Ms. Cheryl	Kulas		Executive Director		US Fish & Wildlife Service	3425 Miriam Ave.	Bismarck	ND	58501
Mr. Greg	Wiche		Director	Water Resources Division	Indian Affairs Commission	1st Floor, Judicial Wing, Rm 117	Bismarck	ND	58505-0300
Mr. L. David	Glatt		Chief	Environmental Health Section	US Geological Survey	821 E. Interstate Ave.	Bismarck	ND	58501
Mr. Mike	McKenia		Chief	Conservation & Communication Division	ND Department of Health	918 E. Divide Ave., 4th floor	Bismarck	ND	58501-1947
Mr. Doug	Prchal		Director		ND Game & Fish Department	100 Bismarck Expressway	Bismarck	ND	58501-5095
Mr. Dale	Fink		State Engineer		ND Parks & Recreation Dept.	1600 E. Century Ave., Suite 3	Bismarck	ND	58503-0649
Mr. Bill	Boyd		Construction Manager		ND State Water Commission	900 E. Blvd. Ave.	Bismarck	ND	58505-0850
Mr. Doug	Dixon		General Manager	Badlands Region	Midcontinent Cable Company	719 Memorial Hwy	Bismarck	ND	58501
Mr. George	Berg		Manager		Montana Dakota Utilities	PO Box 1406	Williston	ND	58802-1406
Mr. Ken	Miller		Manager	Land Department	NoDak Electric Coop., Inc.	Box 13000	Grand Forks	ND	58208-3000
Mr. Ray	Christerson		Manager/CEO		Northern Border Pipeline Company	13710 FNB Parkway	Omaha	NE	68154-5200
Mr. David C.	Schelkopf		CEO		Southwest Water Authority	4665 2nd St. W.	Dickinson	ND	58601
Mr. Manager	or Madam		Manager		West Plains Electric Coop., Inc.	PO Box 1038	Dickinson	ND	58602-1038
Mr. Manager	or Madam		Manager		Xcel Energy	PO Box 2747	Fargo	ND	58108-2747
Mr. Manager	or Madam		Manager		Upper Missouri G & T Electric Cooperative	8660 Highway 200	Halliday	ND	58636
Mr. Peterson			District Engineer		McKenzie Electric Cooperative, Inc.	10686 Highway 200	Kidder	ND	58640
Mr. Gangle	Bagley		District Engineer	Williston District	Roughrider Electric Cooperative	1173 3rd Ave W	Dickson	ND	58601
Mr. Lonny	Bagley		Field Office Manager	Dickinson District	ND Department of Transportation	605 Dakota Parkway West	Williston	ND	58802-0688
Mr. Mike	Nash		Assistant Field Office Manager	North Dakota Field Office	ND Department of Transportation	1700 3rd Ave West, Suite 101	Dickinson	ND	58601-3009
Mr. Michael	Sevage		Tribal Chairman	Division on Mineral Resources	Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Mr. Myra	Pearson		Tribal Chairman		Sisseton-Wapeton Sioux Tribe	PO Box 309	Sisseton	SD	57262-0267
Mr. Ron	His Horse Is Thunder		Tribal Chairman	Fl. Totten Tribal Business Office	Spirit Lake Sioux Tribe	PO Box 359	Fl. Totten	ND	58325
Mr. Penny	Brady		Tribal Historic Preservation Officer		Standing Rock Sioux Tribe	PO Box D	Fort Yates	ND	58538
Mr. Marcus	Levings		Tribal Chairman		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Mr. David	Brien		Tribal Chairman		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Mr. Damon	Williams		Tribal Attorney		Turtle Mountain Chippewa	PO Box 900	Belcourt	ND	58316-0900
Mr. Fred	Fox		Director	Energy Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Ms. V. Judy	Brough		Representative	Four Bears Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr. Arnold	Strahs		Representative	Mandaree Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr. Scott	Eagle		Representative	Shell Creek Segment	Three Affiliated Tribes	PO Box 665	Mandaree	ND	58757
Mr. Mervin	Packneau		Representative	Parshall/Lucky Mound Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr. Frank	Whitecalf		Representative	White Shield Segment	Three Affiliated Tribes	PO Box 468	Parshall	ND	58770
Mr. Barry	Benson		Representative	Twin Buttes Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr. Fred	Poltra		Representative	Game and Fish Department	Three Affiliated Tribes	70879 E. Ave NW	Halliday	ND	58636
Mr. Todd	Hall		Operations Manager	Natural Resources Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr. Roger	Hovda		Operations Manager		Reservation Telephone Cooperative	PO Box 88	Parshall	ND	58770-0088
Mr. Don	Nordquist		Auditor		Pietro Hunt, LLC	PO Box 935	Bismarck	ND	58502-0935
Ms. Frances M.	Olson		Auditor		McKenzie County	PO Box 643	Watford City	ND	58864-0543

SOV MASTER LIST

Save as new file for each project and edit accordingly with project specific contacts

C Title	First	Last	Title	Department	Agency	Address	City	State	Zip
Mr.	Richard C.	Coyko	Chair	County Commission	McKenzie County	PO Box 543	Watford City	ND	58854-0543

Appendix B
Agency Scoping Response

Petro Hunt, LLC
List of Scoping Responses

Federal

US Department of Agriculture, Natural Resources Conservation Service
US Department of Defense, Army Corps of Engineers – North Dakota Field Office **(2)**
US Department of Defense, Army Corps of Engineers – Omaha District **(2)**
US Department of Interior, Bureau of Reclamation **(2)**
US Department of Interior, Fish and Wildlife Service
US Department of Transportation, Federal Aviation Administration

Tribal

Three Affiliated Tribes Tribal Historic Preservation Office

State

North Dakota Department of Health **(2)**
North Dakota Game and Fish Department
North Dakota Parks and Recreation Department
North Dakota State Water Commission **(2)**
State Historical Society of North Dakota

Local

United States Department of Agriculture



Natural Resources Conservation Service
P.O. Box 1458
Bismarck, ND 58502-1458

November 10, 2009

Shanna Braun
Kadmas, Lee & Jackson, Inc.
1505 S 30th Avenue
PO Box 96
Moorhead, MN 56561-0096

RE: Up to Four Proposed Oil and Gas Exploratory Wells. Fort Berthold Reservation,
McKenzie County, ND

Dear Ms. Braun:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated October 29, 2009, concerning up to four proposed oil and gas exploratory wells on Fort Berthold Reservation, McKenzie County, North Dakota.

Natural Resources Conservation Service has a major responsibility with the Farmland Protection Policy Act (FPPA) in documenting conversion of farmland (i.e., prime, statewide, and local importance) to non-agricultural use when federal funds are utilized. It appears your proposed project is not supported by federal funding or actions; therefore, FPPA does not apply and no further action is needed. In addition, North Dakota NRCS no longer submits comments for environmental assessments.

Wetlands – The Wetland Conservation Provisions of the 1985 Food Security Act, as amended, provide that if a USDA participant converts a wetland for the purpose of, or to have the effect of, making agricultural production possible, loss of USDA benefits could occur. NRCS has developed the following guidelines for the installation of buried utilities. If these guidelines are followed, the impacts to the wetland(s) will be considered minimal allowing USDA participants to continue to receive USDA benefits. Following are the requirements: 1) Disturbance to the wetland(s) must be temporary, 2) no drainage of the wetland(s) is allowed (temporary or permanent), 3) mechanized landscaping necessary for installation is kept to a minimum and preconstruction contours are maintained, 4) temporary side cast material must be placed in such a manner not to be dispersed in the wetland, and 5) all trenches must be backfilled to the original wetland bottom elevation.

Helping People Help the Land

An Equal Opportunity Provider and Employer




Ms.Braun

Page 2

NRCS would recommend that impacts to wetlands be avoided. If the project requires passage through or disturbance of a wetland, NRCS can complete a certified wetland determination, if requested by the landowner/operator.

If you have additional questions pertaining to FPPA, please contact Steve Sieler, State Soil Liaison, at (701) 530-2019.

Sincerely,



JOHN GLOVER
Acting State Conservationist

cc:

Kyle Hartel, DC, NRCS, Watford City, ND

Terrance Gisvold, ASTC (FO), NRCS, Dickinson, ND



REPLY TO
ATTENTION OF

North Dakota Regulatory Office

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
1513 SOUTH 12TH STREET
BISMARCK ND 58504-8640
October 30, 2009

[NWO-2009-2764-BIS]

Kadmas Lee & Jackson, Inc.
ATTN: Shanna Braun
1505 S 30th Avenue
PO Box 96
Moorhead, Minnesota 56561-0096

Dear Ms. Braun:

This is in response to your request for comments on behalf of Petro Hunt, LLC for the preparation of an Environmental Assessment for the Bureau of Indian Affairs and the Bureau of Land Management for proposed construction of four (4) separate exploratory oil and gas wells on the Fort Berthold Reservation. These wells are located in McKenzie County, North Dakota.

The Corps of Engineers regulates the discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act. If the work, including the associated facilities, would include a discharge of dredged or fill material in waters of the U.S., even temporarily, a permit would be required. Nationwide Permit No.12 may cover the work proposed provided all the terms and conditions of the nationwide permit, including water quality certification, are met. In certain instances, the current nationwide permit does not require notification to the Corps. Please review the attached Fact Sheet to see if these projects require notification.

If you believe this project will result in a discharge of fill material in waters of the U.S. please fill out the enclosed application and return to our office.

If you have any questions regarding this letter or our program, please do not hesitate to write me at the above address, or call this office at (701) 255-0015.

Sincerely,

A handwritten signature in black ink that reads "Patsy Crooke".

Patsy Crooke
Project Manager
North Dakota Regulatory Office

Enclosures

**Instructions for Preparing a
Department of the Army Permit Application**

Blocks 1 through 4. To be completed by Corps of Engineers.

Block 5. Applicant's Name. Enter the name and the E-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the application. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by applicant, if an agent is to be employed.

Block 12. Proposed Project Name or Title. Please provide name identifying the proposed project, e.g., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center.

Block 13. Name of Waterbody. Please provide the name of any stream, lake, marsh, or other waterway to be directly impacted by the activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Project Street Address. If the proposed project is located at a site having a street address (not a box number), please enter it here.

Block 15. Location of Proposed Project. Enter the latitude and longitude of where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality that the site is located in.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide description of the proposed project location, such as lot numbers, tract numbers, or you may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed project site if known

Block 18. Nature of Activity. Describe the overall activity or project. Give appropriate dimensions of structures such as wing walls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 18.

Block 19. Proposed Project Purpose. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Block 20. Reasons for Discharge. If the activity involves the discharge of dredged and/or fill material into a wetland or other waterbody, including the temporary placement of material, explain the specific purpose of the placement of the material (such as erosion control).

Block 21. Types of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Block 22. Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Description of Avoidance, Minimization, and Compensation. Provide a brief explanation describing how impacts to waters of the United States are being avoided and minimized on the project site. Also provide a brief description of how impacts to waters of the United States will be compensated for, or a brief statement explaining why compensatory mitigation should not be required for those impacts.

Block 24. Is Any Portion of the Work Already Complete? Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps permit, identify the authorization, if possible.

Block 25. Names and Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Project Site. List complete names and full mailing addresses of the adjacent property owners (public and private) lessees, etc., whose property adjoins the waterbody or aquatic site where the work is being proposed so that they may be notified of the proposed activity (usually by public notice). If more space is needed, attach an extra sheet of paper marked Block 24.

Information regarding adjacent landowners is usually available through the office of the tax assessor in the county or counties where the project is to be developed.

Block 26. Information about Approvals or Denials by Other Agencies. You may need the approval of other federal, state, or local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for a Corps permit.

Block 27. Signature of Applicant or Agent. The application must be signed by the owner or other authorized party (agent). This signature shall be an affirmation that the party applying for the permit possesses the requisite property rights to undertake the activity applied for (including compliance with special conditions, mitigation, etc.).

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number.

Please submit one original, or good quality copy, of all drawings on 8½ x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations.

Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
(33 CFR 325)

OMB APPROVAL NO. 0710-0003
EXPIRES: 31 August 2012

Public reporting burden for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please **DO NOT RETURN** your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO. <i>Nov 2009-274-BIS</i>	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
-----------------------------------------------	----------------------	------------------	------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - Middle - Last - Company - E-mail Address -				8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required) First - Middle - Last - Company - E-mail Address -			
3. APPLICANT'S ADDRESS Address - City - State - Zip - Country -				9. AGENT'S ADDRESS Address - City - State - Zip - Country -			
7. APPLICANT'S PHONE NOs. WAREA CODE a. Residence b. Business c. Fax				10. AGENT'S PHONE NOs. WAREA CODE a. Residence b. Business c. Fax			

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE

DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)	
13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable) Address City - State - Zip -
15. LOCATION OF PROJECT Latitude: °N Longitude: °W	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID Municipality Section - Township - Range -	
17. DIRECTIONS TO THE SITE	

FACT SHEET
NATIONWIDE PERMIT 12
(2007)

UTILITY LINE ACTIVITIES. Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2 acre of waters of the United States.

Utility lines: This NWP authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for the utility lines, in all waters of the United States, provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2 acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the total discharge from a single and complete project does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR Part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or

under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP also authorizes temporary structures, fills, and work necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (Sections 10 and 404)

Note 1: Where the proposed utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters), copies of the pre-construction notification and NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, accordance with the requirements for temporary fills.

Note 3: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

General Conditions: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48.

6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. **Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical

habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

18. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address

documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality. *Specifically in North Dakota, the North Dakota Department of Health has denied certification for projects under this Nationwide Permit proposed to cross all classified rivers, tributaries and lakes; individual certification for project in these waterways must be obtained by the project proponent prior to authorization under this Nationwide Permit. For utility line crossings of all other waters, the Department of Health has issued water quality certification provided the attached Construction and Environmental Disturbance Requirements are followed.*

22. Coastal Zone Management. *Not Applicable.*

23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:
"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

26. Compliance Certification. Each permittee who received a NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

27. Pre-Construction Notification. *See attached pages.*

28. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

General Condition 27. Pre-Construction Notification.

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
- (2) Forty five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

- (1) Name, address and telephone numbers of the prospective permittee;
- (2) Location of the proposed project;
- (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);
- (4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWP and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) District Engineer's Decision: In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

**2007 NATIONWIDE PERMITS
REGIONAL CONDITIONS
STATE OF NORTH DAKOTA
OMAHA DISTRICT – CORPS OF ENGINEERS**

The U.S. Army Corps of Engineers has adopted the following regional conditions for activities authorized by nationwide permits within the State of North Dakota. However, the pre-construction notification requirements defined below are not applicable to Nationwide Permit 47.

1. Wetlands Classified as Fens

All Nationwide Permits, with the exception of 3, 5, 20, 32, 38, 45, and 47, are revoked for use in fens in North Dakota. For nationwide permits 3, 5, 20, 32, 38, and 45 permittees must notify the Corps in accordance with General Condition 27 (Notification) prior to initiating any regulated activity impacting fens in North Dakota.

Fens are wetlands that develop where a relatively constant supply of ground water to the plant rooting zone maintains saturated conditions most of the time. The water chemistry of fens reflects the mineralogy of the surrounding and underlying soils and geological materials. The substrate is carbon-accumulating, ranging from muck to peat to carbonates. These wetlands may be acidic to alkaline, have pH ranging from 3.5 to 8.4 and support a range of vegetation types. Fens may occur on slopes, in depressions, or on flats (i.e., in different hydrogeomorphic classes; after: Brinson 1993).

2. Waters Adjacent to Natural Springs

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 27 (Notification) for regulated activities located within 100 feet of the water source in natural spring areas in North Dakota. For purposes of this condition, a spring source is defined as any location where there is artesian flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

3. Missouri River, including Lake Sakakawea and Lake Oahe within the State of North Dakota

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 27 (Notification) prior to initiating any regulated activity in the Missouri River, including Lake Sakakawea and Lake Oahe, within the State of North Dakota.

4. Historic Properties

That the permittee and/or the permittee's contractor, or any of the employees, subcontractors or other persons working in the performance of a contract(s) to complete the work authorized herein, shall cease work and report the discovery of any previously unknown historic or archeological remains to the North Dakota Regulatory Office. Notification shall be by telephone or fax within 24 hours of the discovery and in writing within 48 hours. Work shall not resume until the permittee is notified by the North Dakota Regulatory Office.

5. Spawning Condition

That no regulated activity within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota or on the North Dakota Game and Fish Department's website as a North Dakota Public Fishing Water shall occur between 15 April and 1 June. No regulated activity within the Red River of the North shall occur between 15 April and 1 July.

Additional Information

Permittees are reminded that General Condition No. 6 prohibits the use of unsuitable material. In addition, organic debris, some building waste, and materials excessive in fines are not suitable material.

Specific verbiage on prohibited materials and the 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at:
<https://www.nwo.usace.army.mil/html/od-nd/ndhome.htm>



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
1513 SOUTH 12TH STREET
BISMARCK ND 58504-6640

December 31, 2009

North Dakota Regulatory Office

[NWO-2009-2764-BIS]

Kadrmas Lee & Jackson, Inc.
ATTN: Ms. Shanna Braun
1505 S 30th Avenue
PO Box 96
Moorhead, Minnesota 56561-0096

Dear Ms. Braun:

Regarding your request for updated information for exploratory oil and gas wells on the Fort Berthold Reservation, specifically the well located in SE ¼ Section 22, Township 152 North, Range 94 West, McKenzie County, North Dakota, our comments to you dated October 30, 2009 would remain the same.

If you have any questions, please don't hesitate to contact this office at the above address or by calling 701.255.0015.

Respectfully,

A handwritten signature in cursive script that reads "Patsy Crooke".

Patsy Crooke
Project Manager
North Dakota Regulatory Office



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
1616 CAPITOL AVENUE
OMAHA NE 68102-4901

November 9, 2009

Planning, Programs, and Project Management Division

Ms. Shanna Braun
Kadrmass, Lee and Jackson
1505 S 30th Avenue
P.O. Box 96
Moorhead, Minnesota 56561

Dear Ms. Braun:

The U.S. Army Corps of Engineers, Omaha District (Corps) has reviewed your letter dated October 29, 2009 regarding the proposed drilling and completion of up to four exploratory oil and gas wells on the Fort Berthold Reservation, North Dakota. The Corps offers the following comments:

Since the proposed project does not appear to be located within Corps owned or operated lands we are providing no floodplain or flood risk information. To determine if the proposed project may impact areas designated as a Federal Emergency Management Agency special flood hazard area please consult the following floodplain management office.

North Dakota State Water Commission
Jeff Klein
900 East Boulevard Avenue
Bismarck, North Dakota 58505-0850
jjkein@nd.gov
T-701-328-4898
F-701-328-3747

Your plans should be coordinated with the U.S. Environmental Protection Agency, which is currently involved in a program to protect groundwater resources. If you have not already done so, it is recommended you consult with the U.S. Fish and Wildlife Service and the North Dakota Game and Fish Department regarding fish and wildlife resources. In addition, the North Dakota State Historic Preservation Office should be contacted for information and recommendations on potential cultural resources in the project area. It does not appear that cultural resources are present on Corps owned lands.

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. You can visit the Omaha District's Regulatory website for permit applications and related information. Please review the information on the provided web site (<https://www.nwo.usace.army.mil/html/od-r/district.htm>) to determine if this project requires a 404 permit. For a detailed review of permit requirements, preliminary and final project plans should be sent to:

U.S. Army Corps of Engineers
Bismarck Regulatory Office
Attention: CENWO-OD-R-ND/Cimarosti
1513 South 12th Street
Bismarck, North Dakota 58504

In addition, please update your records with our current mailing address:

U.S. Army Corps of Engineers, Omaha District
Planning Branch
Attention: CENWO-PM-AC
1616 Capitol Avenue
Omaha, Nebraska 68102-4901

If you have any questions, please contact Mr. John Shelman of my staff at (402) 995-2708.

Sincerely,



for Brad Thompson
Chief, Environmental Resources and Missouri Recovery
Program and Plan Formulation, Planning Branch
Planning, Programs and Project Management Division



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
1616 CAPITOL AVENUE
OMAHA NE 68102-4901

January 14, 2010

Planning, Programs, and Project Management Division

Ms. Shanna Braun
Kadmas, Lee and Jackson
1505 South 30th Avenue
P.O. Box 96
Moorhead, Minnesota 56561

Dear Ms. Braun:

The U.S. Army Corps of Engineers, Omaha District (Corps) has reviewed your letter dated December 30, 2009 regarding the proposed drilling and completion of up to four exploratory oil and gas wells on the Fort Berthold Reservation, North Dakota. The Corps offers the following comments:

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Jeff Klein
900 East Boulevard Avenue
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jjkein@nd.gov
T-701-328-4898
F-701-328-3747

Your plans should be coordinated with the U.S. Environmental Protection Agency, which is currently involved in a program to protect groundwater resources. If you have not already done so, it is recommended you consult with the U.S. Fish and Wildlife Service and the North Dakota Game and Fish Department regarding fish and wildlife resources. In addition, the North Dakota State Historic Preservation Office should be contacted for information and recommendations on potential cultural resources in the project area. It does not appear that cultural resources are present on Corps owned lands.

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. You can visit the Omaha District's Regulatory website for permit applications and related information. Please review the information on the provided web site (<https://www.nwo.usace.army.mil/html/od-r/district.htm>) to determine if this project requires a 404 permit. For a detailed review of permit requirements, preliminary and final project plans should be sent to:

U.S. Army Corps of Engineers
Bismarck Regulatory Office
Attention: CENWO-OD-R-ND/Cimarosti
1513 South 12th Street
Bismarck, North Dakota 58504

In addition, please update your records with our current mailing address:

U.S. Army Corps of Engineers, Omaha District
Planning Branch
Attention: CENWO-PM-AC
1616 Capitol Avenue
Omaha, Nebraska 68102-4901

If you have any questions, please contact Mr. John Shelman of my staff at (402) 995-2708.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad Thompson", with a long horizontal flourish extending to the right.

Brad Thompson
Chief, Environmental Resources and Missouri Recovery
Program and Plan Formulation, Planning Branch
Planning, Programs and Project Management Division



DK-5000
ENV-6.00

United States Department of the Interior

BUREAU OF RECLAMATION

Dakotas Area Office
P.O. Box 1017
Bismarck, North Dakota 58502



NOV 4 2009

Ms. Shanna Braun
Environmental Planner
Kadmas, Lee & Jackson, Inc.
P.O. Box 96
Moorhead, MN 56561-0096

Subject: Solicitation for Environmental Assessment for Drilling and Completion of up to Four Proposed Oil and Gas Exploratory Wells on the Fort Berthold Reservation in McKenzie County, North Dakota

Dear Ms. Braun:

This letter is written to inform you that the letter sent on October 29 was received and the information and map have been reviewed by Bureau of Reclamation staff.

Oil and gas exploratory well sites located in McKenzie County could potentially affect Reclamation facilities in the form of the rural water pipelines of the Fort Berthold Rural Water System.

The following proposed well sites are located in the vicinity and could potentially impact existing or proposed water pipelines:

NW¼ section 18, T152N, R93W
NW¼ section 13, T152N, R94W
SW¼ section 14, T152N, R94W
SW¼ section 22, T152N, R94W

We are providing a map depicting existing or proposed water pipeline alignments in the vicinity of well site locations which could potentially affect Reclamation facilities. Since Reclamation is the lead Federal agency for the Fort Berthold Rural Water System, we request that any work planned on the reservation be coordinated with Mr. Marvin Danks, Fort Berthold Rural Water Director, Three Affiliated Tribes, 308 4 Bears Complex, New Town, North Dakota 58763.

Thank you for providing the information and opportunity to comment. If you have any further questions, please contact me at 701-221-1288.

Sincerely,

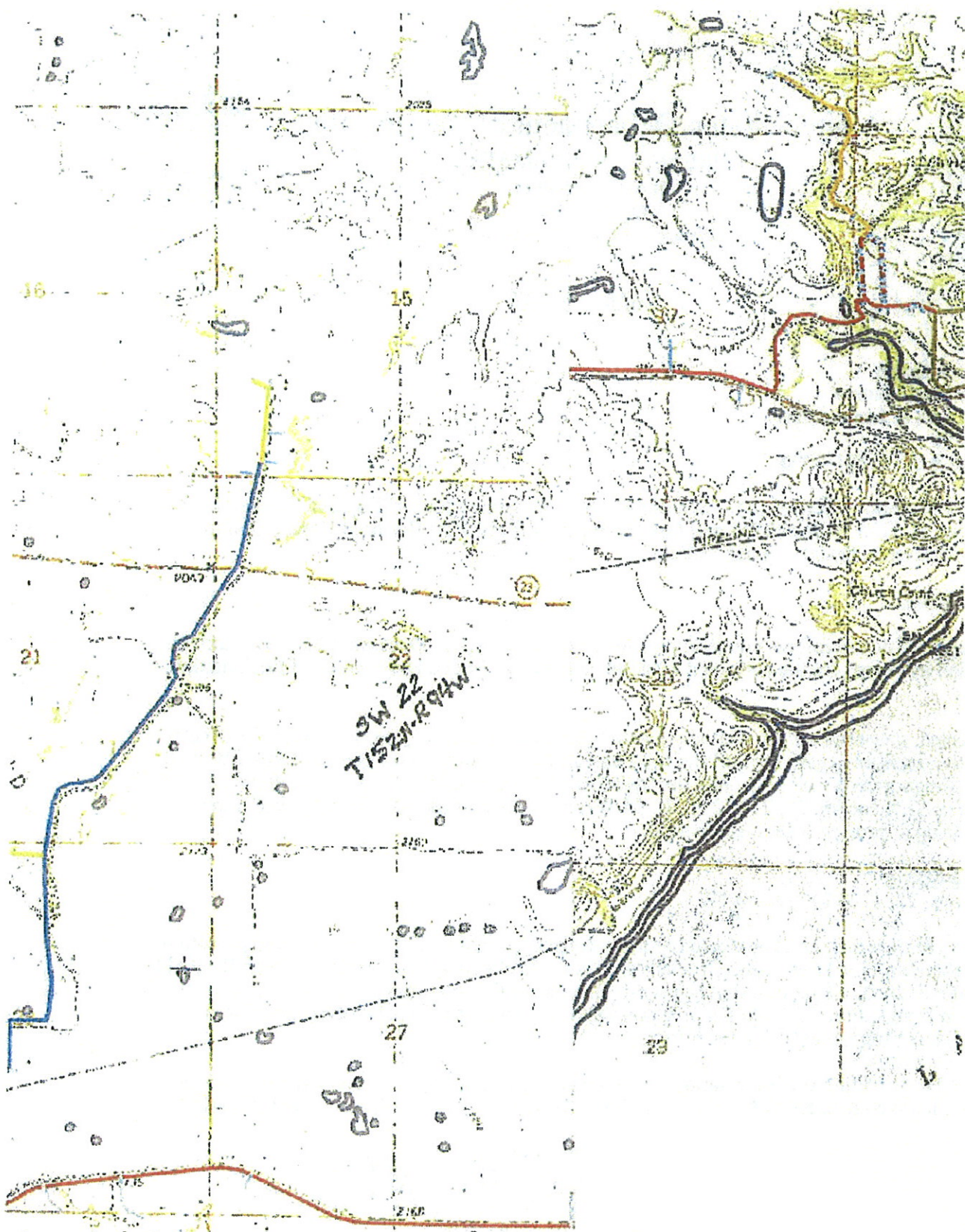


Ronald D. Melhouse
Environmental Specialist

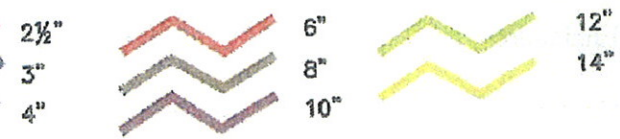
Enclosure

cc: Bureau of Indian Affairs
Great Plains Regional Office
Attention: Ms. Marilyn Bercier
Regional Environmental Scientist
115 Fourth Avenue S.E.
Aberdeen, SD 57401

Mr. Marvin Danks
Fort Berthold Rural Water Director
Three Affiliated Tribes
308 4 Bears Complex
New Town, ND 58763
(w/encl)



SW 22
T152N-R94W



 WETLANDS



DK-5000
ENV-6.00

United States Department of the Interior

BUREAU OF RECLAMATION

Dakotas Area Office
P.O. Box 1017
Bismarck, North Dakota 58502



JAN 5 2010

Ms. Shanna Braun
Environmental Planner
Kadmas, Lee & Jackson, Inc.
P.O. Box 96
Moorhead, MN 56561-0096

Subject: Solicitation Correction for Environmental Assessment for Drilling and Completion of up To Four Proposed Oil and Gas Exploratory Wells Fort Berthold Reservation in McKenzie County, North Dakota

Dear Ms. Braun:

This letter is written to inform you that your letter was received on December 31, 2009, and the information and maps for the corrected location have been reviewed by Bureau of Reclamation staff.

The corrected, proposed oil/gas well site located in McKenzie County could potentially affect Reclamation facilities in the form of the rural water pipelines of the Fort Berthold Rural Water System. The proposed well originally described as SW $\frac{1}{4}$ section 22, T. 152 N., R. 94W. is now described as SE $\frac{1}{4}$ section 22, T. 152 N., R. 94 W. and located in the vicinity of a water pipeline either existing or proposed for construction.

McKenzie County
SE $\frac{1}{4}$ sections 22, T. 152 N., R. 94 W.

We are providing a map and key depicting the corrected, proposed well site that could potentially affect Reclamation facilities. Since Reclamation is the lead Federal agency for the Fort Berthold Rural Water System, we request that any work planned on the reservation be coordinated with Mr. Marvin Danks, Fort Berthold Rural Water Director, Three Affiliated Tribes, 308 4 Bears Complex, New Town, North Dakota 58763.

Thank you for providing the information and opportunity to comment. If you have any further questions, please contact Kelly McPhillips at 701-221-1287 or Ron Melhouse at 701-221-1288.

Sincerely,

Kelly B. McPhillips
Environmental Specialist

Enclosure




cc: See next page.

cc: Bureau of Indian Affairs
Great Plains Regional Office
Attention: Ms. Marilyn Bercier
Regional Environmental Scientist
115 Fourth Avenue S.E.
Aberdeen, SD 57401



Mr. Marvin Danks
Fort Berthold Rural Water Director
Three Affiliated Tribes
308 4 Bears Complex
New Town, ND 58763
(w/encl)

LEGEND

PIPELINE

 1" POLY
 1½"
 2"

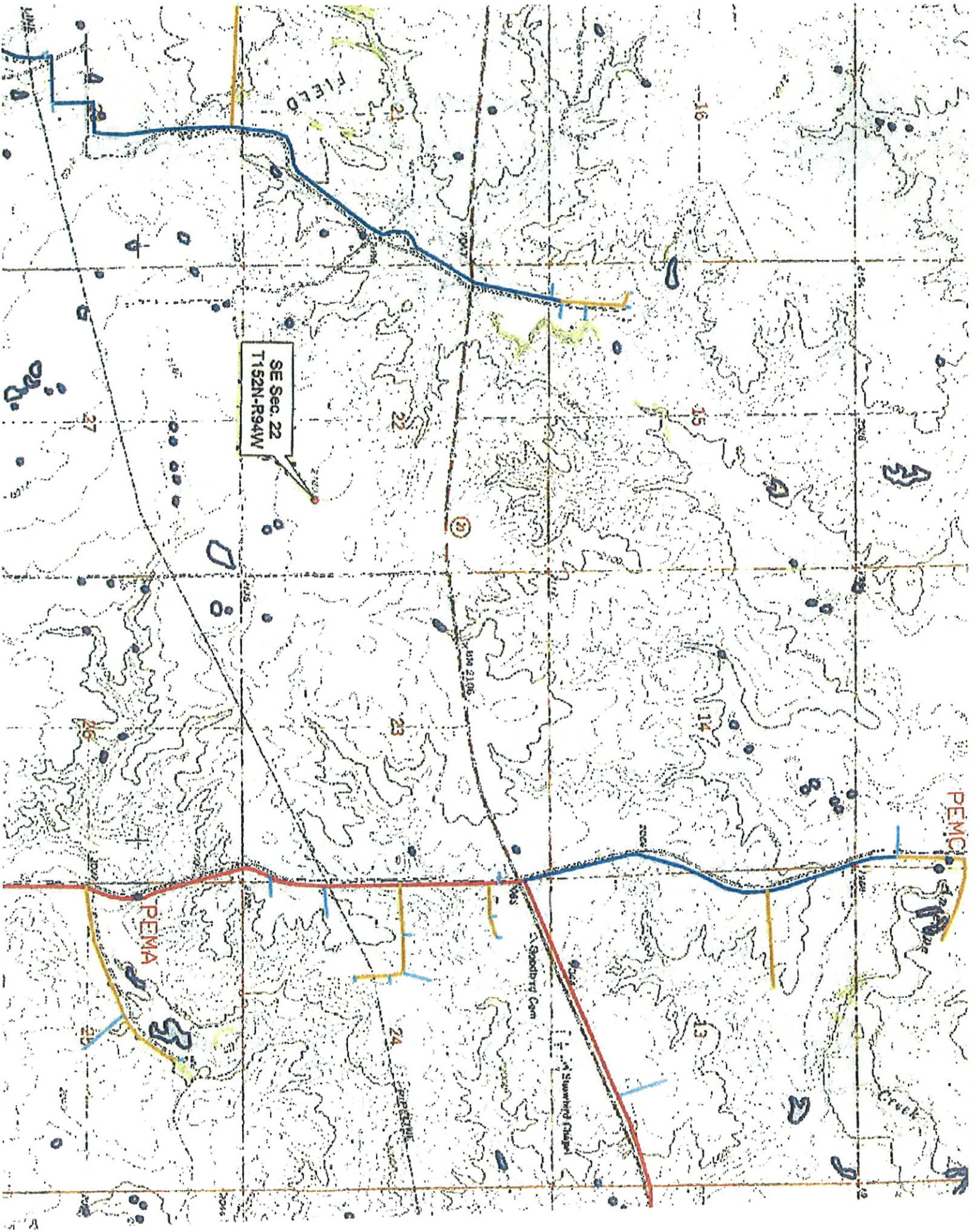
 2½"
 3"
 4"

 6"
 8"
 10"

 12"
 14"



WETLANDS



SE Sec 22
T152N-R34W

PEMIC

PEMA

FIELD

Creek

10

USA 2106

Goodrich Cam

Stumptown Chapel

24

23

22

21

16

15

14

13

27

26

25

LINE



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501



DEC 17 2009

Ms. Shanna Braun
Environmental Planner
Kadrmass, Lee & Jackson, Inc.
1505 S. 30th Ave
P.O. Box 96
Moorhead, Minnesota 56561-0096

Re: Four exploratory oil and gas wells on
the Fort Berthold Reservation

Dear Ms. Braun:

This is in response to your October 29, 2009 letter regarding proposed exploratory oil and gas wells on the Fort Berthold Reservation. Petro-Hunt LLC has proposed two exploratory oil and gas wells on one pad site on the Fort Berthold Reservation, McKenzie County, North Dakota.

Specific locations are:

T. 152 N., R. 93 W., Section 18, NW¼

T. 152 N., R. 94 W., Section 13, NW ¼

T. 152 N., R. 94 W., Section 14, SW¼

T. 152 N., R. 94 W., Section 22, SW¼

We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA), and the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

In an e-mail dated October 13, 2009, the Bureau of Indian Affairs (BIA) designated Kadrmass, Lee & Jackson to represent the BIA for informal Section 7 consultation under the ESA. Therefore, the U.S. Fish and Wildlife Service (Service) is responding to you as the designated non-Federal representative.

Threatened and Endangered Species

A list of federally endangered and threatened species that may be present within the proposed project's area of influence is enclosed. This list fulfills requirements of the Service under Section 7 of the ESA. This list remains valid for 90 days. The BIA or designated non-Federal agent should make a determination of the proposed projects' effects on listed species, including whether there is anticipated destruction or adverse modification of designated critical habitat. This determination may be included in the EA. It should state whether or not the BIA plans to incorporate the Service's recommendations to avoid and minimize any adverse effects. If the BIA does not plan to take the recommended measures, the document should explain why not.

There is designated critical habitat for the piping plover in McKenzie. We recommend that a buffer of at least one-half mile be maintained from piping plover critical habitat. Critical habitat can be viewed on the Service website (http://www.fws.gov/northdakotafieldoffice/endspecies/species/piping_plover.htm). GIS layers of critical habitat can be obtained by contacting our office at the letterhead address.

The Aransas Wood Buffalo Population (AWBP) of endangered whooping cranes is the only self-sustaining migratory population of whooping cranes remaining in the wild. These birds breed in the wetlands of Wood Buffalo National Park in Alberta and the Northwest Territories of northern Canada, and overwinter on the Texas coast. Whooping cranes in the AWBP annually migrate through North Dakota during their spring and fall migrations. They make numerous stops along their migration route to feed and roost before moving on.

Whooping cranes in the AWBP annually migrate through North Dakota during their spring and fall migrations. The proposed project lies within a 90 mile corridor that includes approximately 75 percent of all reported whooping crane sightings in the State (enclosure 1).

Whooping cranes are unlikely to spend more than a few days in any one spot during migration. The Service suggests that the Environmental Assessment (EA) include a requirement that if a whooping crane is sighted within one mile of a well site or associated facilities while it is under construction, that all work cease within one-mile of that part of the project and the Service be contacted immediately. In coordination with the Service, work may resume after the bird(s) leave the area.

Potential habitat for the Dakota skipper exists on the Fort Berthold Reservation in Dunn and McKenzie Counties. In 1995, the Dakota skipper was determined to be a candidate species under the ESA. No legal requirement exists to protect candidate species; however, it is within the spirit of the ESA to consider these species as having significant value and worth protecting.

The Dakota skipper is a small to medium-sized hesperiine butterfly associated with high quality prairie ranging from wet-mesic tallgrass prairie to dry-mesic mixed grass prairie.

The first type of habitat is relatively flat and moist native bluestem prairie. Three species of wildflowers are usually present: wood lily (*Lilium philadelphicum*), harebell (*Campanula rotundifolia*), and smooth camas (*Zygadenus elegans*). The second habitat type is upland (dry) prairie that is often on ridges and hillsides. Bluestem grasses and needlegrasses dominate these habitats. On this habitat type, three wildflowers are typically present in high quality sites that are suitable for Dakota skipper: pale purple (*Echinacea pallida*) and upright (*E. angustifolia*) coneflowers and blanketflower (*Gaillardia sp.*). Because of the difficulty of surveying for Dakota skippers and a short survey window, we recommend that the project avoid any impacts to potential Dakota skipper habitat. If Dakota skipper habitat is present near the proposed project, and you intend to take precautions to avoid impacts to skipper habitat, please notify the Service for further direction.

Migratory Birds

The MBTA has no provisions for incidental take. Regardless, it is understood that some birds may be killed even if all reasonable conservation measures are implemented. The Service's Office of Law Enforcement carries out its mission to protect migratory birds through investigations and enforcement, and through fostering relationships with individuals and industries seeking to eliminate their impacts to migratory birds. While it is not possible under the MBTA and BGEPA to absolve individuals or companies from liability by following these guidelines, enforcement will be focused on those individuals or companies that take migratory birds with disregard for the law, and where no legitimate conservation measures have been applied. Please inform us as to whether you intend to follow the following recommendations to minimize impacts to migratory birds, including bald and golden eagles.

Schedule construction for late summer or fall/early winter so as not to disrupt migratory birds or other wildlife during the breeding season (February 1 to July 15). If work is proposed to take place during the breeding season or at any other time which may result in the take of migratory birds, their eggs, or active nests, the Service recommends that the project proponent arrange to have a qualified biologist conduct a field survey of the affected habitats to determine the presence of nesting migratory birds. If nesting migratory birds, their eggs, or active nests are found, we request you contact this office, suspend construction, or take other measures, such as maintaining adequate buffers, to protect the birds until the young have fledged. The Service further recommends that field surveys for nesting birds, along with information regarding the qualifications of the biologist(s) performing the surveys, and any avoidance measures implemented at the project site, be thoroughly documented and that such documentation be shared with the Service and maintained on file by the project proponent.

The Service estimates that 500,000 to 1 million birds are killed nationwide every year from exposed oil at oil drilling and/or production sites. The unauthorized take of migratory birds at oil production facilities can be prevented with a minimum of expense and effort. Wildlife mortalities in North Dakota are most often observed in association with drilling reserve pits, flare pits, and/or drip buckets and barrels. The Service strongly

recommends that the pads be constructed as closed-loop systems, without a reserve pit. Regardless of whether the pads are built with reserve pits, we recommend that the BIA include the following measures in the EA so as to ensure compliance with the MBTA.

- **Keep Oil Off Open Pits or Ponds.** Immediate clean up of oil in open pits is critical to prevent wildlife mortalities.
- **Place Covers on Drip Buckets/Barrels Located Under Valves and Spigots.** Bird entrapments are common within the small (55 gallon or less) barrels placed under valves and spigots to collect dripped oil. Placing a wire mesh or grate over the top of these barrels is a very practical way of preventing access for wildlife
- **Use Effective and Proven Exclusionary Devices.** Netting is the most effective method of keeping birds from entering open pits (reserve and flare pits). Flagging, reflectors, and strobe lights are not effective. Published scientific studies as well as field inspections by Service personnel have documented bird mortalities at oil pits with flagging, reflectors, and strobe lights (e.g. Esmoil 1995). The effectiveness of netting pits to exclude birds and other wildlife depends on its installation. Effective installation requires a design allowing for snow-loading and one that also prevents ground entry by small mammals and birds. A maximum mesh size of 1.5 inches will allow for snow-loading and will exclude most birds. Nets or wire mesh over flare pits can be implemented if the flare tube is high enough to keep flame away from the net. Some examples of both effective and ineffective netting techniques can be found on the Service's website at <http://www.fws.gov/mountain%2Dprairie/contaminants/contaminants1c.html>.

Bald and/or golden eagles may use the project area where the proposed wells will be located. Golden eagles inhabit a wide variety of habitat types, including open grassland areas. They are known to nest on cliffs, in trees, manmade structures, and on the ground (Kochert et al. 2002). There are numerous records of golden eagle nests on the Fort Berthold reservation (Pers. Comm. Anne Marguerite Coyle, Dickinson State University). While the bald eagle tends to be more closely associated with forested areas near water (Buehler 2000), they have been found nesting in single trees several miles from the nearest water body. Therefore, there may also be potential habitat for the bald eagle at the proposed project sites. Especially early in the nesting season, eagles can be very sensitive to disturbance near the nest site and may abandon their nest as a result of low disturbance levels, even from foot traffic. A buffer of at least 1/2 mile should be maintained for golden and bald eagle nests. A permit is required for any take of bald or golden eagles or their nests. Permits to take golden eagles or their nests are available only for legitimate emergencies and as part of a program to protect golden eagles.

The Service recommends that aerial raptor surveys be conducted prior to any on-the-ground activities. The Service recommends that an aerial nest survey (preferably by helicopter) be conducted within 1.0-mile of any proposed ground disturbances to identify active and inactive nest sites near the proposed well pad and associated facilities,

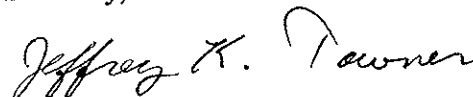
Post-production Phase – Reclamation

Each project should include a plan to restore the landscape following project completion, including a bond sufficient to reclaim the area in full. Within one year of a well's closure, the well pads, roads, and associated facilities should be completely removed from the landscape, the land recontoured back to its original profile, and the area reseeded with a native prairie mix. Since native prairie species take some time to establish, and intensive management may be required for several years to ensure that weeds do not infest the area, the Service recommends that the BIA follow the timeline requirements set out in the 2003 *North Dakota Public Service Commission, Standards for evaluation of revegetation success and recommended procedures for pre-and postmining vegetation assessments* (available on-line at <http://www.psc.state.nd.us/jurisdiction/reclamation/files/revvegdocjuly2003final.pdf>). This document requires that reclaimed areas be managed for a minimum of ten years, starting in the year when first seeded. Starting in the sixth year, for at least two consecutive years, or three out of the last five, including the last year, the reclaimed area must meet the approved standard as described in the document.

For prairie areas, the Service recommends planting a diverse mixture of native cool and warm season grasses and forbs. While the North Dakota Public Service Commission document requires only five native grass species, recent research has suggested that a more diverse mix, including numerous forb species, is not only ecologically beneficial, but is also more weed resistant, allowing for less intensive management and chemical use. In essence, the more species included in a mixture, the higher the probability of providing competition to resist invasion by non-native plants. The seed source should be as local as possible, preferably collected from the nearby native prairie.

Thank you for the opportunity to comment on this project. If you require further information or the project plans change, please contact me or Carol Aron of my staff at (701) 250-4481 or at the letterhead address.

Sincerely,



Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

Enclosures

cc: Bureau of Indian Affairs, Aberdeen
(Attn: Marilyn Bercier)
Bureau of Land Management, Dickinson
ND Game & Fish Department, Bismarck

including proposed new roads. Aerial surveys should be conducted between March 1 and May 15, before leaf-out so that nests are visible.

Aerial surveys should include the following:

1. Due to the ability to hover and facilitate observations of the ground, helicopters are preferred over fixed wing aircraft, although small aircraft may also be used for the raptor surveys. Whenever possible, two observers should be used to conduct the surveys. Even experienced observers only find approximately 50 percent of nests on a flight (Pers. Comm. Anne Marguerite Coyle, Dickinson State University), so we recommend that two flights be performed prior to any on-the-ground work, including other biological surveys or other work.
2. Observations of raptors and nest sites should be recorded using GPS. The date, location, nest condition, activity status, raptor species, and habitat should be recorded for each sighting.
3. We request that you share the qualifications of the biologist(s) conducting the survey, method of survey, and results of the survey with the Service.

High Value Habitat Avoidance

To minimize disturbance to fish and wildlife habitat in the project area, the Service provides the following recommendations:

- Make no stream channel alterations or changes in drainage patterns.
- Install and maintain appropriate erosion control measures to reduce sediment transport to adjacent wetlands and stream channels.
- Reseed disturbed areas with a mixture of native grass and forb species immediately after construction to reduce erosion.

Cumulative Effects Analysis

A large number of wells and appurtenant facilities are being constructed in the western portion of North Dakota. The Service is concerned that the wells, and especially the associated roads, are being put in piecemeal without an overarching plan to ensure that the facilities are being constructed to access all new pads most efficiently, while disturbing the least amount of habitat. While we understand that there is still some level of uncertainty regarding the extent of the oil formations, there has been enough drilling in this area that the Service believes that the uncertainty is relatively small and decreasing. It would be appropriate for the EA to include some cumulative effects analysis of the existing and proposed pads, roads, electrical transmission lines, and preferably pipelines to transport the products.

Habitat Fragmentation

Prairie habitat is increasingly being lost or fragmented because of the large number of wells and associated roads that are being constructed in areas of the State that were formerly relatively undeveloped. Only about 30% of native prairie in North Dakota remains from pre-settlement times (Strong et al. 2005), with nearly all native tallgrass prairie converted nationwide (Ricketts et al. 1999). Oil pads, associated roadways, and vehicle traffic can cause fragmentation of the landscape, disrupting wildlife patterns and making it more likely that non-native plant species may invade an area. The Service recommends placing as few well pads as possible on the landscape and locating pads so as to avoid or minimize the construction of new roads. Many prairie species require large, contiguous blocks of grasslands for their biological needs and may either avoid patchy habitat or experience reduced reproductive success.

- The Service recommends that impacts to native prairie be avoided or minimized. If native prairie cannot be avoided, the Service recommends outlining stringent reclamation requirements, including a bond sufficient to cover the cost of reclamation, as described in the “Post-production Phase – Reclamation” section below.
- The Service recommends that oil wells use existing roads and trails to the greatest extent possible, minimizing all new road construction.
- If a new road is necessary, the Service recommends avoiding native prairie to the greatest extent possible.
- If new roads are constructed, the Service recommends that the disturbed areas along the road be reseeded immediately with a native prairie mix to reduce erosion and prevent invasion by non-native species. Disturbed areas should be monitored regularly throughout the life of the project, and treated with herbicide as necessary to ensure that exotic species are not infesting disturbed areas.
- If multiple companies are developing well pads in the same general area, roads should be shared to the greatest extent possible to minimize disturbance.
- Install and maintain appropriate erosion control measures to reduce sedimentation and water quality degradation of wetlands and streams near the project area.

The Service recommends that the BIA incorporate the relevant requirements described in the Dakota Prairie Grasslands Land and Resource Management Plan (USDA 2001). This document includes a number of requirements to avoid sensitive resources. In particular, the Service suggests that the BIA incorporate the relevant portions of Appendix D, Oil and Gas Stipulations.

Literature Cited

- Buehler, David A. 2000. Bald Eagle (*Haliaeetus leucocephalus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/506>.
- Esmoil, B. 1995. Wildlife mortality associated with oil pits in Wyoming. *Prairie Naturalist* 27(2): 81-88.
- Kochert, M. N., K. Steenhof, C. L. McIntyre and E. H. Craig. 2002. Golden Eagle (*Aquila chrysaetos*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology. Accessed October 13, 2009. Available online at: <http://bna.birds.cornell.edu/bna/species/684>.
- Ricketts, T. H., E. Dinerstein, D. M. Olsen, C. J. Loucks, W. Eichbaum, D. DellaSala, K. Kavanagh, P. Hedao, P. T. Hurley, K. M. Carney, R. Abell, and S. Walters. 1999. *Terrestrial ecoregions of North America: a conservation assessment*. Island Press, Washington, D.C. 485 pages.
- Strong, L. L., T. H. Sklebar, and K. E. Kermes. 2005. *The North Dakota Gap Analysis Project – Final Report*. U.S. Geological Survey. 451 pages. Available online at http://www.npwrc.usgs.gov/projects/ndgap/NDGAP_FinalReport_complete.pdf.
- USDA. 2001. *Land and resource management plan for the Dakota Prairie Grasslands Northern Region*. Accessed October 13, 2009. Available at http://www.fs.fed.us/ngp/plan/feis_plan_dakota_prairie.htm.

FEDERAL THREATENED, ENDANGERED, AND CANDIDATE SPECIES
AND DESIGNATED CRITICAL HABITAT FOUND IN
MCKENZIE COUNTY, NORTH DAKOTA
December 2009

ENDANGERED SPECIES

Birds

Interior least tern (*Sterna antillarum*): Nests along midstream sandbars of the Missouri and Yellowstone Rivers.

Whooping crane (*Grus Americana*): Migrates through west and central counties during spring and fall. Prefers to roost on wetlands and stockdams with good visibility. Young adult summered in North Dakota in 1989, 1990, and 1993. Total population 140-150 birds.

Fish

Pallid sturgeon (*Scaphirhynchus albus*): Known only from the Missouri and Yellowstone Rivers. No reproduction has been documented in 15 years.

Mammals

Black-footed ferret (*Mustela nigripes*): Exclusively associated with prairie dog towns. No records of occurrence in recent years, although there is potential for reintroduction in the future.

Gray wolf (*Canis lupus*): Occasional visitor in North Dakota. Most frequently observed in the Turtle Mountains area.

THREATENED SPECIES

Birds

Piping plover (*Charadrius melodus*): Nests on midstream sandbars of the Missouri and Yellowstone Rivers and along shorelines of saline wetlands. More nest in North Dakota than any other state.

CANDIDATE SPECIES

Invertebrates

Dakota skipper (Hesperia dacotae): Found in native prairie containing a high diversity of wildflowers and grasses. Habitat includes two prairie types: 1) low (wet) prairie dominated by bluestem grasses, wood lily, harebell, and smooth camas; 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needlegrass, pale purple and upright coneflowers and blanketflower.

DESIGNATED CRITICAL HABITAT

Birds

Piping Plover - Lake Sakakawea - Critical habitat includes sparsely vegetated shoreline beaches, peninsulas, islands composed of sand, gravel, or shale, and their interface with the water bodies.

Kadrmass
Lee &
Jackson

Engineers Surveyors
Planners

October 29, 2009

Manager Steve Obenauer
Federal Aviation Administration
2301 University Drive, Bldg 23B
Bismarck, ND 58504

**Re: Up to Four Proposed Oil and Gas Exploratory Wells
Fort Berthold Reservation
McKenzie County, North Dakota**

Dear Mr. Obenauer,

On behalf of Petro Hunt, LLC, Kadrmass, Lee & Jackson, Inc. is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM of the development, drilling, and completion of four exploratory oil and gas wells on the Fort Berthold Reservation. These well sites are proposed to be positioned in the following locations:

- NW ¼ Section 18, T152N, R93W
- NW ¼ Section 13, T152N, R94W
- SW ¼ Section 14, T152N, R94W
- SW ¼ Section 22, T152N, R94W

Please refer to the enclosed project location map.

The well sites have been positioned to utilize existing roadways for access to the extent possible. The drilling of these well sites is proposed to begin as early as Spring 2010.

To ensure that social, economic, and environmental effects are considered in the development of this project, we are soliciting your views and comments on the proposed development of this project, pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property that your department may own, or have an interest in, located within the project area. We would also appreciate being made aware of any proposed development your department may be contemplating in the area of the proposed project. Any information that might help us in our study would be appreciated.

218 287 0300

1505 S 30th Avenue

PO Box 96

Moorhead, MN 56561-0096

Fax 218 287 6313

www.kljeng.com

Kadrmass, Lee & Jackson, Inc.

A KLJ Solutions Company

Up to Four Proposed Oil and Gas Exploratory Wells
Petro Hunt, LLC
Fort Berthold Reservation

Page 2

It is requested that any comments or information be forwarded to our office on or before **November 30, 2009**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the necessary environmental documentation.

If you would like further information regarding this project, please contact me at (218) 790-4476. Thank you for your cooperation.

Sincerely,

Kadrmass, Lee & Jackson, Inc.

Page 2

Petro Hunt, LLC

Fort Berthold Reservation


Shanna Braun

Environmental Planner

It is requested that any comments or information be forwarded to our office on or before **November 30, 2009**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the necessary

Enclosure (Map)

If you would like further information regarding this project, please contact me at (218) 790-4476. Thank you for your cooperation.



U.S. Department
of Transportation

Federal Aviation
Administration

Date

11/17/09

Dear Ms. Braun:

No objection provided the Federal Aviation Administration is notified of construction or alterations as required by Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace, Paragraph 77.13. Notice may be filed on-line at <https://ocaaa.faa.gov>.


Patricia L. Dressler

Environmental Protection Specialist
Federal Aviation Administration
Bismarck Airports District Office
2301 University Drive, Building 23B
Bismarck, ND-58504

Kadrmass
Lee &
Jackson
Engineers Surveyors
Planners



TRIBAL HISTORIC PRESERVATION

Mandan Hidatsa Arikara

Perry 'No Tears' Brady, Director.
404 Frontage Road,
New Town, North Dakota 58763
Ph/701-862-2474 fax/701-862-3401
pbrady@mhanation.com

January 21, 2010

Petro Hunt, LLC, Kadrmas, Lee & Jackson, Inc.
1505 S 30th Avenue
PO Box 96
Moorehead, MN 56561-0096

RE: Recommendation & Concurrence

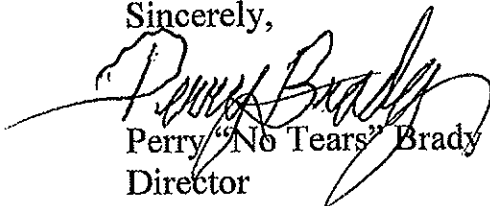
As Director of the Tribal Historic Preservation Office and representing the Mandan Hidatsa and Arikara Nation I concur with the findings that the 4 proposed oil well sites, have no historical cultural properties affected.

Furthermore, I am authorizing continuation with the construction activity of the 4 oil sites.

1. NW one quarter Section 18 T152N, R93W
2. NW one quarter Section 13, T152N, R94W
3. SW one quarter Section 14, T152N, R94W
4. SE one quarter Section 22, T152N, R94W

If you any questions or need additional information you can contact me at
(701)862-2474 (701) 421- 05- 47 cell

Sincerely,



Perry "No Tears" Brady
Director



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov



November 5, 2009

Ms. Shanna Braun
Environmental Planner
Kadmas, Lee & Jackson, Inc.
P.O. Box 96
Moorhead, MN 56561-0096

Re: Up to Four Exploratory Oil and Gas Wells by Petro Hunt, LLC
On the Fort Berthold Reservation, McKenzie County, ND

Dear Ms. Braun:

This department has reviewed the information concerning the above-referenced project submitted under date of October 29, 2009, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. Development of the production facilities and any access roads or well pads should have a minimal effect on air quality provided measures are taken to minimize fugitive dust. However, operation of the wells has the potential to release air contaminants capable of causing or contributing to air pollution. We encourage the development and operation of the wells in a manner that is consistent with good air pollution control practices for minimizing emissions.
2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
3. Oil and gas related construction activities located within tribal boundaries within North Dakota may be required to obtain a permit to discharge storm water runoff from the U.S. Environmental Protection Agency. Further information may be obtained from the U.S. EPA website or by calling the U.S. EPA - Region 8 at (303) 312-6312. Also, cities or counties may impose additional requirements and/or specific best management practices for

Environmental Health
Section Chief's Office
701.328.5150

Division of
Air Quality
701.328.5188

Division of
Municipal Facilities
701.328.5211

Division of
Waste Management
701.328.5166

Division of
Water Quality
701.328.5210

Ms. Shanna Braun

2.

November 5, 2009

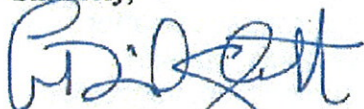
construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

A handwritten signature in blue ink, appearing to read "L. David Glatt". The signature is stylized and somewhat cursive.

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov



January 6, 2010

Ms. Shanna Braun
Environmental Planner
Kadmas, Lee & Jackson, Inc.
P.O. Box 96
Moorhead, MN 56561-0096

Re: Location Correction for Proposed Oil and Gas Well Site by Petro Hunt, LLC
On the Fort Berthold Reservation, McKenzie County, ND

Dear Ms. Braun:

This department has reviewed the information concerning the above-referenced project submitted under date of December 30, 2009, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, our comments remain the same as those in our November 5, 2009 letter to you (copy attached).

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov



November 5, 2009

Ms. Shanna Braun
Environmental Planner
Kadrmas, Lee & Jackson, Inc.
P.O. Box 96
Moorhead, MN 56561-0096

Re: Up to Four Exploratory Oil and Gas Wells by Petro Hunt, LLC
On the Fort Berthold Reservation, McKenzie County, ND

Dear Ms. Braun:

This department has reviewed the information concerning the above-referenced project submitted under date of October 29, 2009, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. Development of the production facilities and any access roads or well pads should have a minimal effect on air quality provided measures are taken to minimize fugitive dust. However, operation of the wells has the potential to release air contaminants capable of causing or contributing to air pollution. We encourage the development and operation of the wells in a manner that is consistent with good air pollution control practices for minimizing emissions.
2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
3. Oil and gas related construction activities located within tribal boundaries within North Dakota may be required to obtain a permit to discharge storm water runoff from the U.S. Environmental Protection Agency. Further information may be obtained from the U.S. EPA website or by calling the U.S. EPA - Region 8 at (303) 312-6312. Also, cities or counties may impose additional requirements and/or specific best management practices for

Environmental Health
Section Chief's Office
701.328.5150

Division of
Air Quality
701.328.5188

Division of
Municipal Facilities
701.328.5211

Division of
Waste Management
701.328.5166

Division of
Water Quality
701.328.5210



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

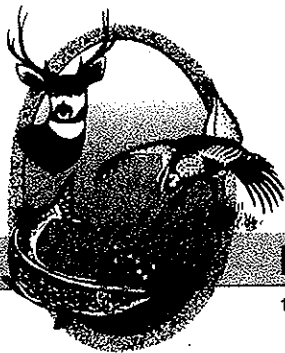
Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

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Fill Material

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"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5085 PHONE 701-328-6300 FAX 701-329-6352

November 17, 2009

Shanna Braun
Environmental Planner
Kadrmass, Lee & Jackson, Inc.
PO Box 96
Moorhead, MN 56561-0096

Dear Ms. Braun:

RE: Exploratory Oil & Gas Wells
Fort Berthold Reservation

Petro Hunt, LLC has proposed up to four exploratory oil and gas wells on the Fort Berthold Reservation in section 18, T152N, R93W; and sections 13, 14, & 22, T152N, R94W; of McKenzie County, North Dakota. The well sites have been positioned to utilize existing roadways for access to the extent possible.

Our primary concern with oil and gas development is the fragmentation and loss of wildlife habitat associated with construction of the well pads and access roads. We recommend that construction be avoided to the extent possible within native prairie, wooded draws, riparian corridors, and wetland areas.

We also suggest that botanical surveys be completed during the appropriate season and aerial surveys be conducted for raptor nests before construction begins.

Sincerely,

A handwritten signature in cursive script that reads "Steve Dyke".

(for)

Michael G. McKenna
Chief
Conservation & Communication Division

js



John Hoeven, Governor
Douglass A. Prchal, Director

1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail parkrec@nd.gov
www.parkrec.nd.gov

November 17, 2009

Shanna Braun
Kadmas, Lee & Jackson
PO Box 96
Moorhead, MN 56561-0096

Re: Petro Hunt, LLC Proposal for Up to Four Oil and Gas Exploratory Wells Project

Dear Ms. Braun:

The North Dakota Parks and Recreation Department (the Department) has reviewed the above referenced project proposal to drill up to four oil and gas exploratory wells on the Fort Berthold Reservation located in Section 18, T152N, R93W; and Sections 13, 14, and 22, T152N, R94W; McKenzie County.

Our agency scope of authority and expertise covers recreation and biological resources (in particular rare plants and ecological communities). The project as defined does not affect state park lands that we manage or Land and Water Conservation Fund recreation projects that we coordinate.

The North Dakota Parks and Recreation Department is responsible for coordinating North Dakota's Scenic Byway and Backway Program. This proposed project is in proximity to the Killdeer Mountain Four Bears Scenic Byway and as such we recommend any project development be completed with the least amount of or no visual impact to the immediate and distant views from that Byway. North Dakota Parks and Recreation Department staff should be contacted at 701-328-5355 to assist in mitigation of any potential impacts.

The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any current or historic plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, we do have records for the occurrence of *Sterna antillarum* (least tern) and *Charadrius melodus* (piping plover) in sections adjacent to the project area indicating that the habitat in the project area may be suited for these species or other rare, threatened, sensitive or endangered species. Please see the attached spreadsheet and map for more information on these occurrences. We defer further comments regarding animal species to the North Dakota Game and Fish Department and the United States Fish and Wildlife Service.

Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources.

The Department recommends that the project be accomplished with minimal impacts and that all efforts be made to ensure that critical habitats not be disturbed in the project area to help secure rare species conservation in North Dakota. Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

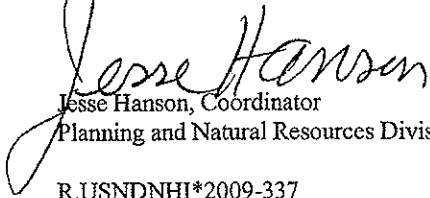
It is our policy to charge out-of-state requests for data services including data retrieval, data analysis, manual and computer searches, packaging and collection of data. An invoice for services provided has been enclosed.

.....
Play in our backyard!

November 17, 2009
Page 2

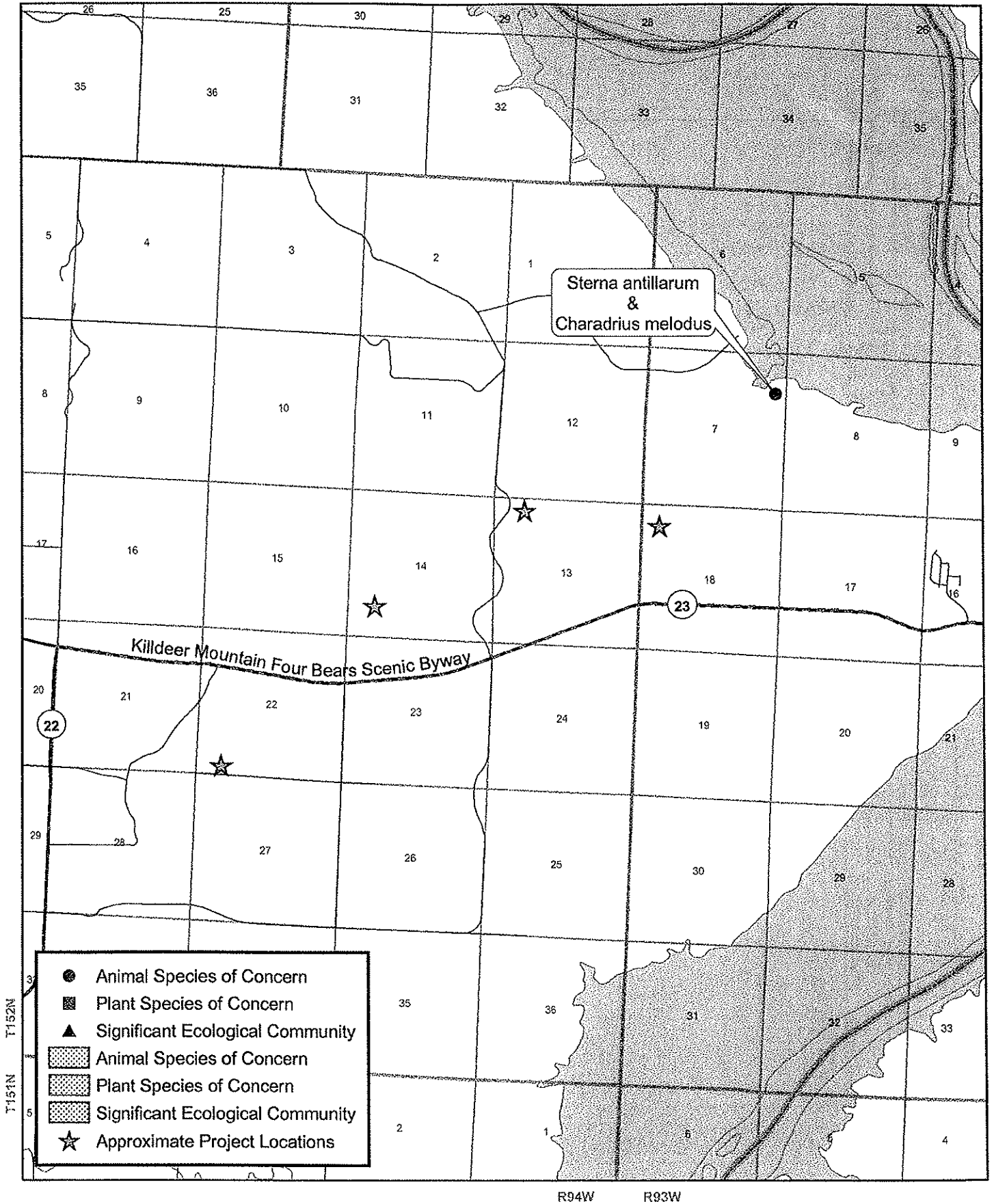
Thank you for the opportunity to comment on this project. Please contact Kathy Duttonhefner (701-328-5370 or kgduttonhefner@nd.gov) of our staff if additional information is needed.

Sincerely,


Jesse Hanson, Coordinator
Planning and Natural Resources Division

R.USNDNHI*2009-337

North Dakota Natural Heritage Inventory Species of Concern and Significant Ecological Communities



R94W R93W

North Dakota Natural Heritage Inventory
Rare Animal and Plant Species and Significant Ecological Communities

State Scientific Name	State Common Name	State Rank	Global Rank	Federal Status	Township Range Section	County	Last Observation	Estimated Representation Accuracy	Precision
<i>Sterna antillarum</i>	Least Tern	S1	G4		152N093W - 07	McKenzie	1988-07		S
<i>Charadrius melodus</i>	Piping Plover	S1S2	G3	LE, LI	152N093W - 07	McKenzie	1988		S

North Dakota Natural Heritage Inventory Biological and Conservation Data Disclaimer

The quantity and quality of data collected by the North Dakota Natural Heritage Inventory are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in North Dakota have never been thoroughly surveyed, and new species are still being discovered. For these reasons, the Natural Heritage Inventory cannot provide a definite statement on the presence, absence, or condition of biological elements in any part of North Dakota. Natural Heritage data summarize the existing information known at the time of the request. Our data are continually upgraded and information is continually being added to the database. This data should never be regarded as final statements on the elements or areas that are being considered, nor should they be substituted for on-site surveys.

Estimated Representation Accuracy

Value that indicates the approximate percentage of the Element Occurrence Representation (EO Rep) that was observed to be occupied by the species or community (versus buffer area added for locational uncertainty). Use of estimated representation accuracy provides a common index for the consistent comparison of EO reps, thus helping to ensure that aggregated data are correctly analyzed and interpreted.

Very high (>95%)

High (>80%, <= 95%)

Medium (>20%, <= 80%)

Low (>0%, <= 20%)

Unknown

(null) - Not assessed

Precision

A single-letter code for the precision used to map the Element Occurrence (EO) on a U.S. Geological Survey (USGS) 7.5' (or 15') topographic quadrangle map, based on the previous Heritage methodology in which EOs were located on paper maps using dots.

S - Seconds: accuracy of locality mappable within a three-second radius; 100 meters from the centerpoint

M - Minute: accuracy of locality mappable within a one-minute radius; 2 km from the centerpoint

G - General: accuracy of locality mappable to map or place name precision only; 8 km from centerpoint

U - Unmappable

ND Parks and Recreation Department

ND Natural Heritage Inventory
 1600 East Century Ave., Suite 3
 Bismarck, ND 58503-0649
 (701) 328-5370 FAX: (701) 328-5363

INVOICE NO: 0104
 DATE: 11/17/2009

To: Shanna Braun
 Kadrmas, Lee & Jackson
 PO Box 96
 Moorhead, MN 58561-0096

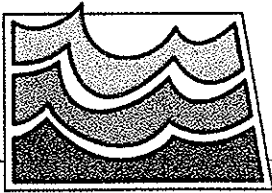
CONTACT	REFERENCE NO.	DATE SHIPPED	SHIPPED VIA	F.O.B. POINT	TERMS
K.Duttenhefner	R.USNDNHI*2009 -337	11/24/2009			

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	Computer data search, data retrieval, spreadsheet and map creation.	\$ 60.00	\$ 60.00
SUBTOTAL			\$ 60.00
SALES TAX			
SHIPPING & HANDLING			
TOTAL DUE			\$ 60.00

Make all checks payable to: ND Parks and Recreation Department
 If you have any questions concerning this invoice, call: Kathy Duttenhefner, (701) 328-5370

THANK YOU FOR YOUR INTEREST IN RARE SPECIES CONSERVATION.

Entry Event	Fund	Dept.	Project	Activity
463021	398	1508	OR15082	15082



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: <http://swc.nd.gov>

November 27, 2009

Shanna Braun
Kadrmas, Lee & Jackson
PO Box 96
Moorhead, MN 56561

Dear Ms. Braun:

This is in response to your request for review of environmental impacts associated with Up to Four Proposed Oil and Gas Exploratory wells, Fort Berthold Reservation, McKenzie County, ND.

The proposed project have been reviewed by State Water Commission staff and the following comments are provided:

- The property is not located in an identified floodplain and it is believed the project will not affect an identified floodplain.
- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.
- No sole-source aquifers have been designated in ND.

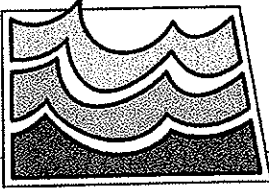
There are no other concerns associated with this project that affect State Water Commission or State Engineer regulatory responsibilities.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 328-4969.

Sincerely,

Larry Knudtson
Research Analyst

LJK:ds/1570



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: <http://swc.nd.gov>

January 29, 2010

Shanna Braun
Kadrmas, Lee and Jackson
PO Box 96
Moorhead, MN 56561-0096

Dear Mr. Braun:

This is in response to your request for review of environmental impacts associated with the Up to Four Proposed Oil and Gas Exploratory Wells, Fort Berthold Reservation, McKenzie County, ND.

The proposed project have been reviewed by State Water Commission staff and the following comments are provided:

- The property is not located in an identified floodplain and it is believed the project will not affect an identified floodplain.
- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.
- No sole-source aquifers have been designated in ND.

There are no other concerns associated with this project that affect State Water Commission or State Engineer regulatory responsibilities.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 328-4969.

Sincerely,

Larry Knudtson
Research Analyst

LJK:ds/1570



**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**

John Hoeven
Governor of North Dakota

North Dakota
State Historical Board

Chester E. Nelson, Jr.
Bismarck - President

Gerold Gerntholz
Valley City - Vice President

Richard Kloubec
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New Town

Diane K. Larson
Bismarck

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Jamestown

Sara Otte Coleman
Director
Tourism Division

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prehal
Director
Parks and Recreation
Department

Francis Ziegler
Director
Department of Transportation

Merlan E. Paaverud, Jr.
Director

Accredited by the
American Association
of Museums

November 3, 2009

Ms. Shanna Braun
Environmental Planner
KLJ
1505 S 30th Avenue
PO Box 96
Moorhead, MN 56561-0096

**NDSHPO REF. 10-0172 BIA/MHAN/BLM Environmental Assessment for
4 proposed well pads and access roads Petro Hunt MHAN/Fort Berthold
Reservation
in portions of [T152N R93W Section 18] and
[T152N R94W Sections 13, 14, 22] McKenzie County all in North Dakota**

Dear Ms. Braun,

We received your letter regarding NDSHPO REF. 10-0172 BIA/MHAN/BLM Environmental Assessment for 4 proposed well pads and access roads Petro Hunt Fort Berthold Reservation. We request that a copy of cultural resource site forms and reports be sent to this office so that the cultural resources archives can be kept current. Perhaps one might consider putting TCP (Traditional Cultural Properties) related information in separate reports not sent to this office.

Thank you for your consideration.
Consultation is with MHAN THPO.

If you have any questions please contact Susan Quinnell, Review & Compliance Coordinator at (701)328-3576 or squinnell@nd.gov

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and Director, State Historical Society of North Dakota

Notice of Availability and Appeal Rights

PetroHunt: 15-1H, 11-1H, 24-1H AND 19-1H

THE BUREAU OF INDIAN AFFAIRS (BIA) IS PLANNING ON DRILLING FOUR HORIZONTAL OIL/GAS WELLS ON 15-1H, 11-1H, 24-1H AND 19-1H BY PETRO-HUNT LLC ON THE FORT BERTHOLD RESERVATION. CONSTRUCTION IS SCHEDULED TO BEGIN IN THE SPRING OF 2010.

AN ENVIRONMENTAL ASSESSMENT (EA) DETERMINED THAT PROPOSED ACTIVITIES WILL NOT CAUSE SIGNIFICANT IMPACTS TO THE HUMAN ENVIRONMENT. AN ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED. CONTACT HOWARD BEMER, SUPERINTENDENT AT 701-627-4707 FOR MORE INFORMATION AND/OR COPIES OF THE EA AND THE FINDING OF NO SIGNIFICANT IMPACT (FONSI).

THE FONSI IS ONLY A FINDING ON ENVIRONMENTAL IMPACTS – IT IS NOT A DECISION TO PROCEED WITH AN ACTION AND CANNOT BE APPEALED. BIA’S DECISION TO PROCEED WITH ADMINISTRATIVE ACTIONS CAN BE APPEALED UNTIL APRIL 30, 2010, BY CONTACTING:

**UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF HEARINGS AND APPEALS
INTERIOR BOARD OF INDIAN APPEALS
801 N. QUINCY STREET, SUITE 300, ARLINGTON, VA 22203.**

PROCEDURAL DETAILS ARE AVAILABLE FROM THE BIA FORT BERTHOLD AGENCY AT 701-627-4707.

Project locations.

