



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
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Aberdeen, South Dakota 57401

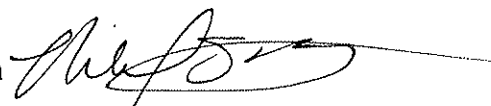


IN REPLY REFER TO:
DESCRM
MC-208

JAN 25 2010

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: 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 eight proposed exploratory drilling wells by Peak 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 Levings, Chairman, Three Affiliated Tribes (with attachment)
Perry "No Tears" Brady, THPO (with attachment)
Roy Swalling, BLM, Dickenson, ND (with attachment)
John Shelman, US Army Corps of Engineers

Finding of No Significant Impact

Peak North Dakota, LLC (Peak)

Environmental Assessment for Drilling of Baker, Brugh-Bear, Danks, Eagle's Nest, and Fox Ridge Exploratory Oil and Gas Wells

Fort Berthold Indian Reservation Dunn and McKenzie Counties, North Dakota

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to drill up to eight exploratory oil and gas wells located atop five well pads as follows:


- Baker #20-34H and 29-31H located in T149N, R92W, Section 20 (two wells)
- Brugh-Bear #2-11H located in T149N, R94W, Section 31 (one well)
- Danks #17-44H and 20-41H located in T151N, R94W Section 17 (two wells)
- Eagle's Nest #34-44H located in T148N, R94W, Section 34 (one well)
- Fox Ridge #3-24H and #10-31H located in T149N, R93W, Section 10 (two wells)

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.



Regional Director

1/25/2010

Date

ENVIRONMENTAL ASSESSMENT

United States Bureau of Indian Affairs

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



Peak North Dakota, LLC

Eight Bakken Formation Exploratory Oil & Gas Wells on Five Well Pads

Baker #20-34H and Baker #29-31H

Brugh-Bear #2-11H

Danks #17-44H and Danks #20-41H

Eagle's Nest #34-44H

Fox Ridge #3-24H and Fox Ridge #10-21H

Fort Berthold Indian Reservation

January 2010

For information contact:

Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resource Management
115 4th Avenue SE
Aberdeen, South Dakota 57401
605-226-7656

Table of Contents

Chapter 1 Purpose and Need for Action

1.1	Introduction.....	1-1
1.2	Description of the Proposed Action.....	1-1
1.3	Need for the Proposed Action.....	1-1
1.4	Purpose of the Proposed Action.....	1-3
1.5	Regulations that Apply to Oil and Gas Development Activities.....	1-3

Chapter 2 Alternatives

2.1	Introduction.....	2-1
2.2	Alternative A: No Action.....	2-1
2.3	Alternative B: Proposed Action.....	2-1
2.3.1	Baker Site (Two Wells).....	2-1
2.3.2	Brugh-Bear Site (One Well).....	2-3
2.3.3	Danks Site (Two Wells).....	2-3
2.3.4	Eagle's Nest Site (One Well).....	2-5
2.3.5	Fox Ridge Site (Two Wells).....	2-5
2.3.6	Activities that Apply to Development of All Wells.....	2-7
2.3.6.1	Field Camps.....	2-7
2.3.6.2	Access Roads.....	2-7
2.3.6.3	Well Pads.....	2-7
2.3.6.4	Drilling.....	2-7
2.3.6.5	Casing and Cementing.....	2-8
2.3.6.6	Completion and Evaluation.....	2-8
2.3.6.7	Commercial Production.....	2-8
2.3.6.8	Reclamation.....	2-9
2.3.7	Potential for Future Development.....	2-9

Chapter 3 Description of the Affected Environment and Impacts

3.1	Introduction.....	3-1
3.2	Climate, Geologic Setting, and Land Use.....	3-1
3.2.1	Geologic Setting and Land Use Impacts/Mitigation.....	3-3
3.3	Soils.....	3-3
3.3.1	Soil Impacts/Mitigation.....	3-5
3.4	Water Resources.....	3-6
3.4.1	Surface Water.....	3-6
3.4.1.1	Surface Water Impacts/Mitigation.....	3-7
3.4.2	Ground Water.....	3-9
3.4.2.1	Ground Water Impacts/Mitigation.....	3-9
3.5	Air Quality.....	3-11
3.5.1	Air Quality Impacts/Mitigation.....	3-12
3.6	Threatened and Endangered Species.....	3-12
3.6.1	Threatened and Endangered Species Impacts/Mitigation.....	3-14
3.7	Wetlands, Wildlife, and Vegetation.....	3-15
3.7.1	Wetlands.....	3-15
3.7.1.1	Wetland Impacts/Mitigation.....	3-15
3.7.2	Wildlife.....	3-15
3.7.2.1	Wildlife Impacts/Mitigation.....	3-16

3.7.3	Vegetation	3-16
3.7.3.1	Vegetation Impacts/Mitigation	3-19
3.8	Cultural Resources	3-19
3.8.1	Cultural Resources Impacts/Mitigation.....	3-21
3.9	Socioeconomic Conditions	3-21
3.9.1	Socioeconomic Impacts/Mitigation.....	3-22
3.10	Environmental Justice	3-22
3.10.1	Environmental Justice Impacts/Mitigation.....	3-22
3.11	Infrastructure and Utilities.....	3-23
3.11.1	Infrastructure and Utility Impacts/Mitigation	3-23
3.12	Public Health and Safety.....	3-24
3.12.1	Public Health and Safety Impacts/Mitigation.....	3-24
3.13	Cumulative Considerations	3-25
3.13.1	Past, Present, and Reasonably Foreseeable Actions.....	3-25
3.13.2	Cumulative Impacts.....	3-27
3.14	Irreversible and Irretrievable Commitment of Resources.....	3-28
3.15	Short-term Use of the Environment Versus Long-term Productivity	3-28
3.16	Permits	3-28
3.17	Environmental Commitments/Mitigation.....	3-28

Chapter 4 Preparers and Agency Coordination

4.1	Introduction.....	4-1
4.2	Preparers.....	4-1
4.3	Agency Coordination.....	4-1
	THPO Determination Letters.....	4-3

Chapter 5 References

5.1	References	5-1
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Figures

Figure 1-1	Project Location Map.....	1-2
Figure 2-1	Baker Site Overview	2-2
Figure 2-2	Burgh-Bear Site Overview	2-3
Figure 2-3	Danks Site Overview	2-4
Figure 2-4	Eagle's Nest Site Overview	2-5
Figure 2-5	Fox Ridge Site Overview	2-6
Figure 3-1	Land Use	3-2
Figure 3-2	Surface Water Resources	3-8
Figure 3-3	Aquifers and Groundwater Wells.....	3-10
Figure 3-4	Example of Prairie Sand Reed (Eagle's Nest Site)	3-17
Figure 3-5	Example of Silver Buffalo Berry and Green Ash (Eagle's Nest Site)	3-17
Figure 3-6	Baker Site Vegetation.....	3-18
Figure 3-7	Burgh-Bear Site Vegetation.....	3-18
Figure 3-8	Danks Site Vegetation.....	3-18
Figure 3-9	Eagle's Nest Site Vegetation	3-18
Figure 3-10	Fox Ridge Site Vegetation.....	3-18
Figure 3-11	Existing and Proposed Oil and Gas Wells.....	3-26

Tables

Table 3.1	Summary of Land Use Conversion	3-3
Table 3.2	Soils	3-3
Table 3.3	Federal and State Air Quality Standards and County Data.....	3-11
Table 3.4	Noxious Weed Species	3-19
Table 3.5	Previous Cultural Resource Surveys and Findings	3-20
Table 3.6	Employment and Income.....	3-21
Table 3.7	Demographic Trends	3-22
Table 3.8	Summary of Active and Proposed Wells	3-25
Table 4.1	Preparers	4-1

Appendices

Appendix A	Agency Scoping Materials
Appendix B	Agency Scoping Responses

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 Peak North Dakota, LLC (Peak) to drill and complete up to eight exploratory oil and gas wells located on five well pads on the Fort Berthold Reservation. These well sites are proposed to be positioned in the following locations:

- Baker #20-34H and 29-31H located in T149N, R92W, Section 20 (two wells)
- Brugh-Bear #2-11H located in T149N, R94W, Section 31 (one well)
- Danks #17-44H and 20-41H located in T151N, R94W, Section 17 (two wells)
- Eagle's Nest #34-44H located in T148N, R94W, Section 34 (one well)
- Fox Ridge #3-24H and #10-31H located in T149N, R93W, Section 10 (two wells)

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.

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 eight 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.

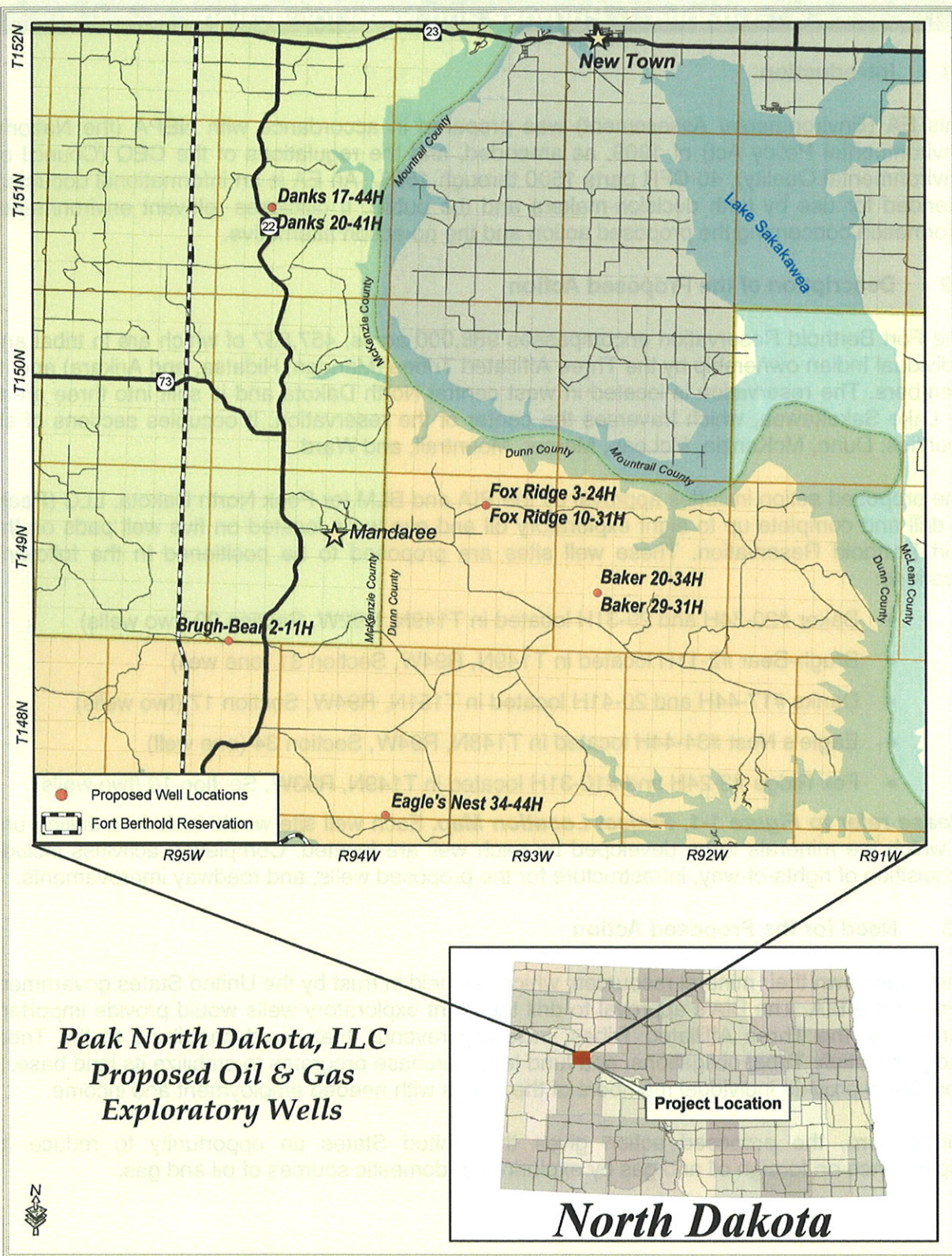


Figure 1-1, Project Location Map

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 Peak's oil and gas lease areas by drilling up to eight 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 one or more of the eight 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 eight 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 or shared 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 points 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.

2.3.1 Baker Site (Two Wells)

The Baker site, consisting of two wells, would be located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 20, Township 149 North, Range 92 West to access potential oil and gas resources within the spacing units consisting of Sections 20 and 29, Township 149 North, Range 92 West. ***Please refer to Figure 2-1, Baker Site Overview.***

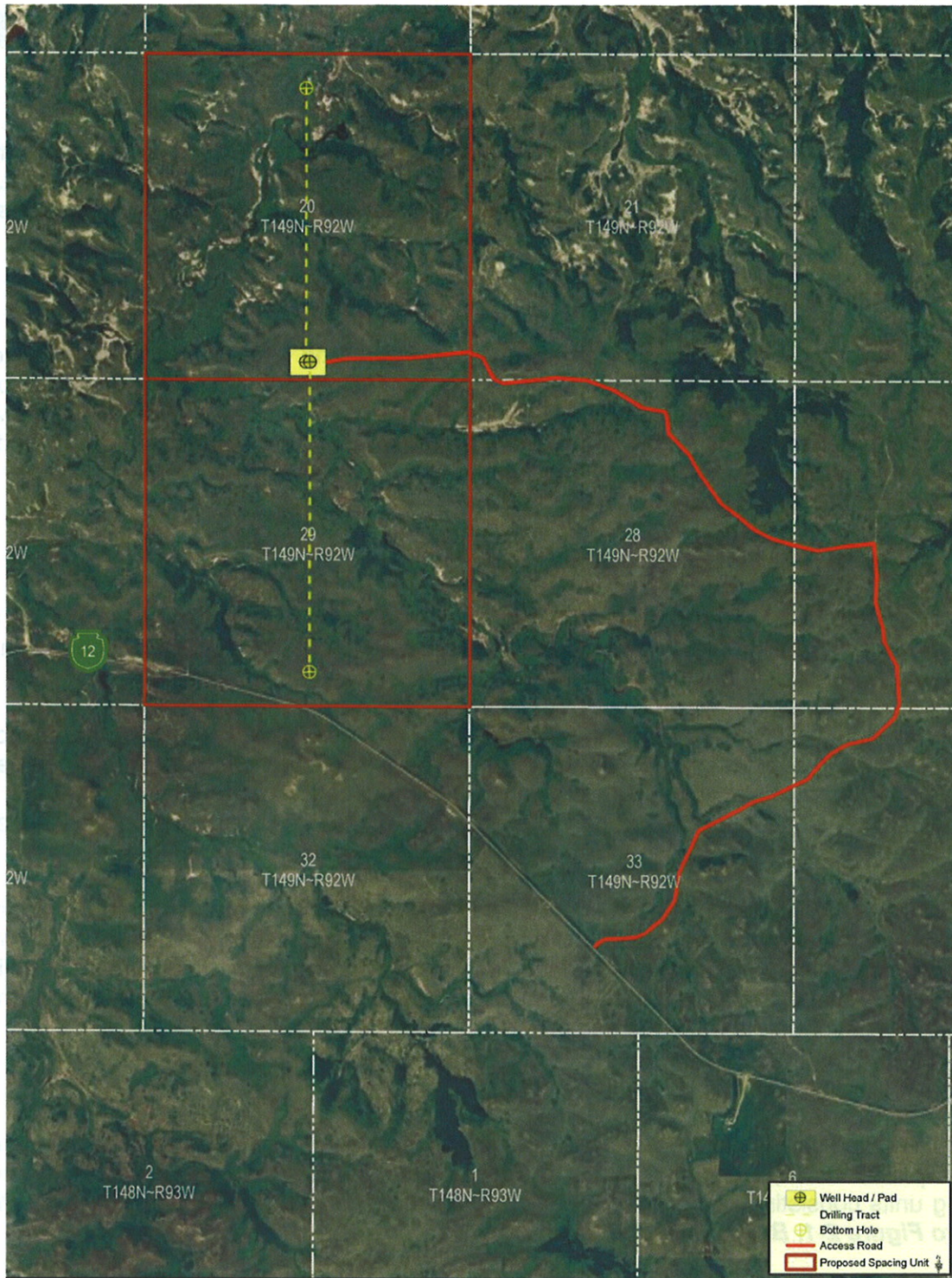


Figure 2-1, Baker Site Overview

The Baker site well pad would be accessed from the east. A new access road approximately 1.1 miles long would be constructed to connect the Baker site to an existing gravel road that later connects to BIA Route 12. 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 Brugh-Bear Site (One Well)

The Brugh-Bear well would be located in the SW¼SE¼ of Section 31, Township 149 North, Range 94 West to access potential oil and gas resources within the spacing unit consisting of Section 2, Township 148 North, Range 95 West. **Please refer to Figure 2-2, Brugh-Bear Site Overview.**

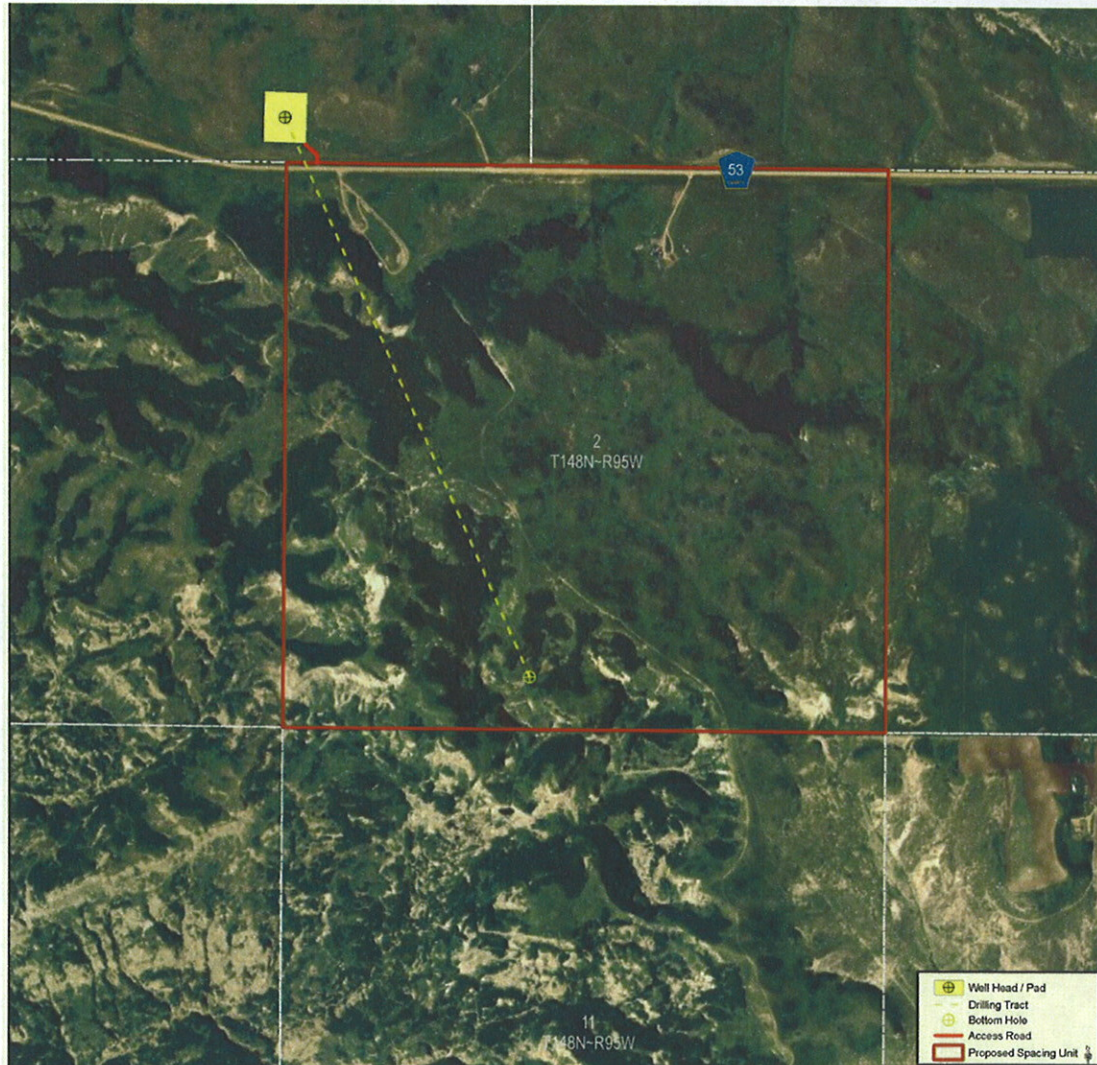


Figure 2-2, Brugh Bear Site Overview

The Brugh Bear Well would be accessed from the south by County Road 53. A new approach roadway approximately 256 feet long would be constructed to connect the Baker site to County Road 53. Additional improvements to the Brugh Bear Well approach roadway would include placement of culverts as needed.

2.3.3 Danks Site (Two Wells)

The Danks Site, consisting of two wells, would be located in the SE¼SE¼ of Section 17, Township 151 North, Range 94 West to access potential oil and gas resources within the

spacing units consisting of the E ½ of Sections 17 and 20, Township 151 North, Range 94 West. **Please refer to Figure 2-3, Danks Site Overview.**

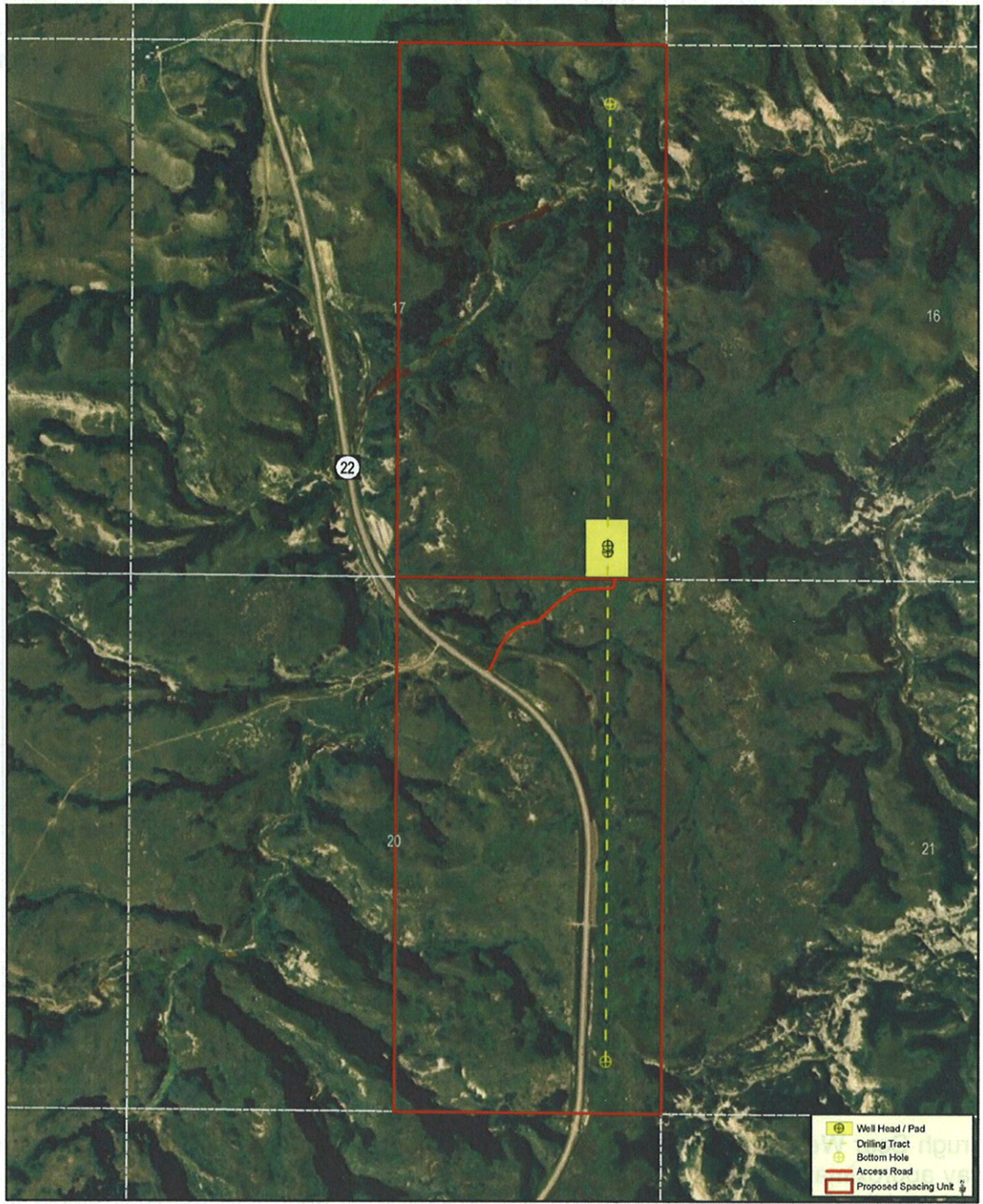


Figure 2-3, Danks Site Overview

The Danks Site would be accessed from the southwest. A new access road approximately 1,728 feet long would be constructed to connect the Danks Site well pad to ND Highway 22. 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 Eagle's Nest Site (One Well)

The Eagle's Nest well pad would be located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 34, Township 148 North, Range 94 West to access potential oil and gas resources within the spacing unit consisting of Section 34, Township 148 North, Range 94 West. *Please refer to Figure 2-4, Eagle's Nest Site Overview.*

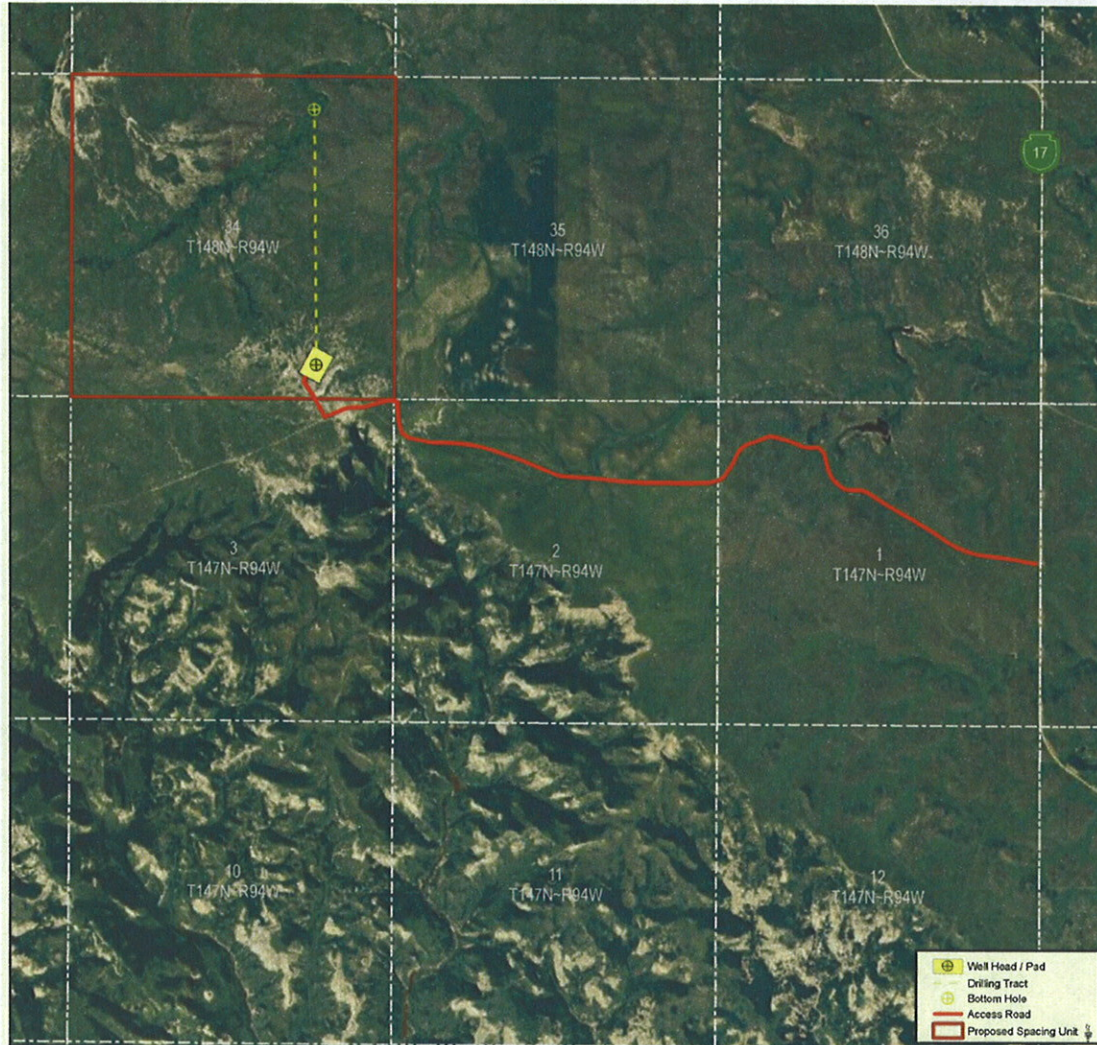


Figure 2-4, Eagle's Nest Site Overview

The Eagle's Nest well pad would be accessed from the southeast. A new access road approximately 2.7 miles long would be constructed to connect the Eagle's Nest well pad to BIA Route 17. 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 Fox Ridge Site (Two Wells)

The Fox Ridge Site would be located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 10, Township 149 North, Range 93 West to access potential oil and gas resources within the spacing units consisting of

Sections 3 and 10, Township 149 North, Range 93 West. **Please refer to Figure 2-5, Fox Ridge Site Overview.**

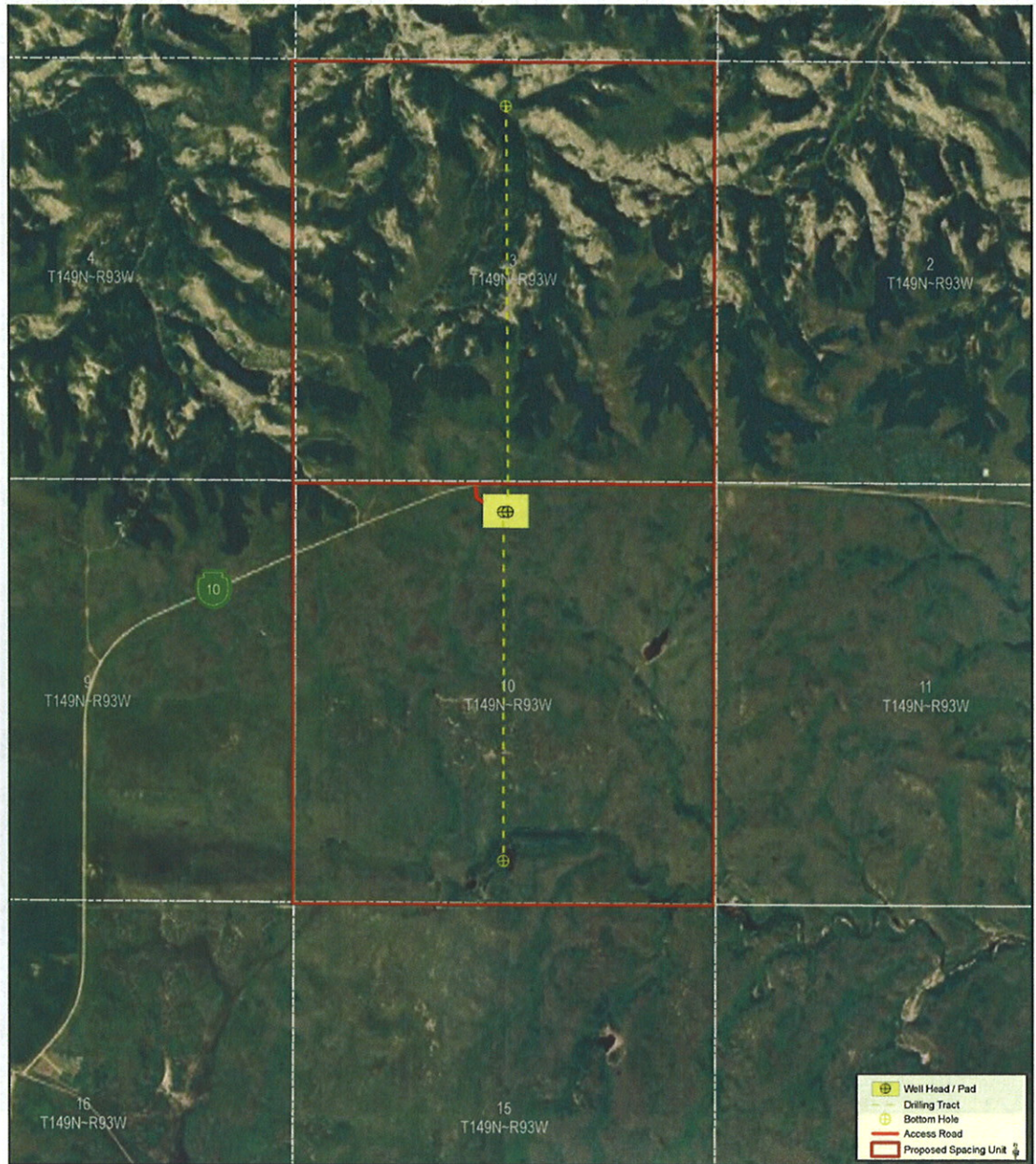


Figure 2-5, Fox Ridge Site Overview

The Fox Ridge Site would be accessed from the west by BIA Highway 10. A new approach roadway approximately 242 feet long would be constructed to connect the Fox Ridge site to the highway. Additional improvements to the Fox Ridge site approach roadway would include placement of culverts as needed.

2.3.6 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:

2.3.6.1 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.

2.3.6.2 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.

2.3.6.3 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 400x500 feet (approximately 4.6 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.

2.3.6.4 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.

2.3.6.5 Casing and Cementing

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

2.3.6.6 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.

2.3.6.7 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.

Peak would mitigate the effects of these eight 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.

2.3.6.8 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.

2.3.7 Potential for Future Development

Development beyond the eight 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 data collected by the Natural Resources Conservation Service from 1971–2000 at Dunn Center, temperatures in excess of 80 degrees Fahrenheit are common in summer months. The area receives approximately 16.5 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 approximately 38.5 inches of snow are received annually. Data collected at Keene, located in McKenzie County, during the same time span contains the same general weather patterns as Dunn Center. However, at Keene annual rainfall was approximately 16.0 inches and snow received annually approximately 32.4 inches.

The topography within the project areas is primarily identified as part of the Missouri Plateau ecoregion, which is unglaciated with rolling plains of silt, sandstone, and shale. 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 use consists primarily of grasslands (90.1%). ***Please refer to Figure 3-1, Land Use.*** Additional surrounding land uses include farmland and shrubland.



Figure 3-1, Land Use

3.2.1 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 69.0 acres of land from present uses to part of an exploratory oil and gas network. **Please refer to Table 3.1, Summary of Land Use Conversion.**

Well Site(s)	Well Pad Acres	Access Road Acres	Total Acres
Baker	6.2	22.7	28.9
Brugh-Bear	4.2	0.3	4.5
Danks	6.4	1.9	8.3
Eagle's Nest	4.6	16.2	20.8
Fox Ridge	6.2	0.3	6.5
Total			69.0

Mineral resources would be impacted through the development of oil and gas resources at the proposed well sites, as is the purpose 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 Dunn County dates from 1982 and of McKenzie County from 2006, with updated information available online through the NRCS Web Soil Survey. There are 30 soil types identified within the project impact areas. Location and characteristics of these soils are identified in **Table 3.2, Soils.**

Well Site(s)	Map Unit Symbol	Soil Name	Percent Slope	Composition (in upper 60 inches)			Erosion Factor ¹		Hydrologic Soil Group ²
				% sand	% silt	% clay	T	Kf	
Baker	30E	Cohagen-Vebar fine sandy loams	9 to 25	79	14	7	2	.49	B
	31F	Cohagen-Vebar-Rock outcrop complex	15 to 40	79	14	7	2	.49	D
	54B	Parshall fine sandy loam	0 to 6	72	15	13	5	.24	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).

**Table 3.2
Soils**

Well Site(s)	Map Unit Symbol	Soil Name	Percent Slope	Composition (in upper 60 inches)			Erosion Factor ¹		Hydrologic Soil Group ²
				% sand	% silt	% clay	T	Kf	
Baker	81B	Vebar-Parshall fine sandy loams	0 to 6	75	15	10	3	.49	B
	81C	Vebar-Parshall fine sandy loams	6 to 9	75	15	10	3	.49	B
	81D	Vebar fine sandy loams	9 to 15	75	15	10	3	.49	B
	88B	Williams loam	3 to 6	35	35	30	5	.37	B
	88C	Williams loam	6 to 9	35	35	30	5	.37	B
	93D	Zahl-Williams loams	9 to 15	35	35	30	5	.37	B
	93E	Zahl-Williams loams	15 to 25	35	34	31	5	.37	B
Brugh-Bear	51B	Amor-Shambo loams	3 to 6	40	39	21	3	.43	B
	71C	Regent-Janesburg complex	6 to 9	7	50	43	3	.43	C
	164D	Vebar fine sandy loam	3 to 15	75	15	10	3	.49	B
Danks	38F	Dogtooth-Janesburg-Cabba complex	6 to 30	5	47	48	2	.43	D
	51C	Amor-Cabba loams	6 to 9	40	39	21	3	.43	B
	54F	Cabba-Sen-Chama silt loams	15 to 70	17	62	21	2	.43	D
	96	Pits, gravel and sand	—	91	6	3	1	.10	A
Eagle's Nest	4B	Arnegard loam	2 to 6	40	37	23	5	.28	B
	9E	Cabba loam	15 to 45	41	39	20	2	.43	D
	15	Belfield-Farland silt loams	0 to 2	22	44	34	5	.43	C
	32C	Flaxton-Williams complex	6 to 9	47	28	25	5	.37	B
	52B	Morton-Dogtooth silt loams	0 to 6	19	58	23	3	.43	B
	62B	Rhoades silt loam	0 to 6	11	51	38	2	.32	D
	69B	Savage-Rhoades silty clay loams	0 to 6	9	53	38	5	.43	C
	71B	Sen silt loam	3 to 6	7	50	43	3	.43	C

Table 3.2 Soils									
Well Site(s)	Map Unit Symbol	Soil Name	Percent Slope	Composition (in upper 60 inches)			Erosion Factor ¹		Hydrologic Soil Group ²
				% sand	% silt	% clay	T	Kf	
Eagle's Nest	81B	Vebar-Parshall fine sandy loams	0 to 6	75	15	10	3	.49	B
	81C	Vebar-Parshall fine sandy loams	6 to 9	75	15	10	3	.49	B
	81D	Vebar fine sandy loams	9 to 15	75	15	10	3	.49	B
	88B	Williams loam	3 to 6	35	35	30	5	.37	B
	105	Harriet silt loam	0 to 2	36	36	28	2	.37	D
Fox Ridge	9D	Amor-Cabba loams	9 to 15	40	39	21	3	.43	B
	18	Belfield-Grail silty clay loams	0 to 2	22	43	35	5	.37	C
	82D	Vebar extremely stony fine sandy loam	3 to 15	75	15	10	3	.49	B
	101B	Amor-Shambo loams	3 to 6	40	39	21	3	.43	B

The majority of the listed soils are moderately susceptible to sheet and rill erosion and can tolerate moderate to high levels of erosion without loss of productivity. The majority of these soils have low runoff potential; however, almost half of the soils have a moderate to high runoff potential. Depth to the water table is recorded at greater than six feet for each of these soil types with the exception of the Belfield-Farland silt loams, Rhoades silt loam, and Harriet silt loam located at the Eagle's Nest site and the Belfield-Grail silty clay loams located at the Fox Ridge well site. None of the soils listed within the project impact areas are susceptible to flooding or ponding with the exception of the Harriet silt loam which is occasionally susceptible to flooding and rarely susceptible to 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. Impacts to soils associated with the proposed action are not expected to be significant. Soils susceptible to erosion account for nine acres of the total 69 acres of project impacts and are primarily limited to the Eagle's Nest well site. The Harriet silt loam, which exhibits the highest potential for soil erosion, accounts for less than 0.1 acres of the proposed project area. Soil impacts would be localized, and BMPs would be implemented to minimize these impacts and included in the NDPDES (North Dakota Pollutant Discharge Elimination System) permit.

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.

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 authority to the EPA (Environmental Protection Agency) for establishing water quality standards, controlling discharges into surface and ground waters, developing waste treatment management plans and practices, and issuing permits for discharges of pollutants (Section 402). It also provides the authority to the US Army Corps of Engineers for issuing permits for discharges of 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. ***Please refer to Figure 3-2, Surface Water Resources, for a summary of watersheds and sub-watersheds encompassing the project areas.*** 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:

- *Baker*—Runoff from the well pad would flow south-southeast into an unnamed coulee, then approximately 0.6 miles west to South Fork Creek. From there it would travel 4.5 miles northeast to Lake Sakakawea for a total traveled distance of 5.1 miles.
- *Brugh-Bear*—Runoff from the well pad would primarily flow northeast to an unnamed coulee, then approximately 6.0 miles northwest to Bear Den Creek. From there it would travel 14.6 miles north-northeast to Lake Sakakawea for a total traveled distance of 20.6 miles.

- *Danks*—Runoff from the well pad would travel west into an unnamed coulee which travels west, and then northeast, approximately 3.4 miles into Rough Coulee. From there it would travel approximately 1.3 miles northeast into Lake Sakakawea for a total travel distance of 4.7 miles.
- *Eagle's Nest*—Runoff from the well pad would flow west into an unnamed coulee, then 1.9 miles north-northwest to Moccasin Creek. From there, it would travel 15.0 miles to Lake Sakakawea for a total traveled distance of 16.9 miles.
- *Fox Ridge*—Runoff from the well pad would flow northwest, then south, to an unnamed coulee, which travels approximately 1.0 miles east to Skunk Creek. From there it would travel 7.0 miles to South Fork Creek, which travels east 2.3 miles to Lake Sakakawea for a total traveled distance of 10.3 miles.

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. A NDPDES (North Dakota Pollutant Discharge Elimination System) Permit would be required prior to construction, and compliance with permit terms would ensure that effects to surface water are not significant.

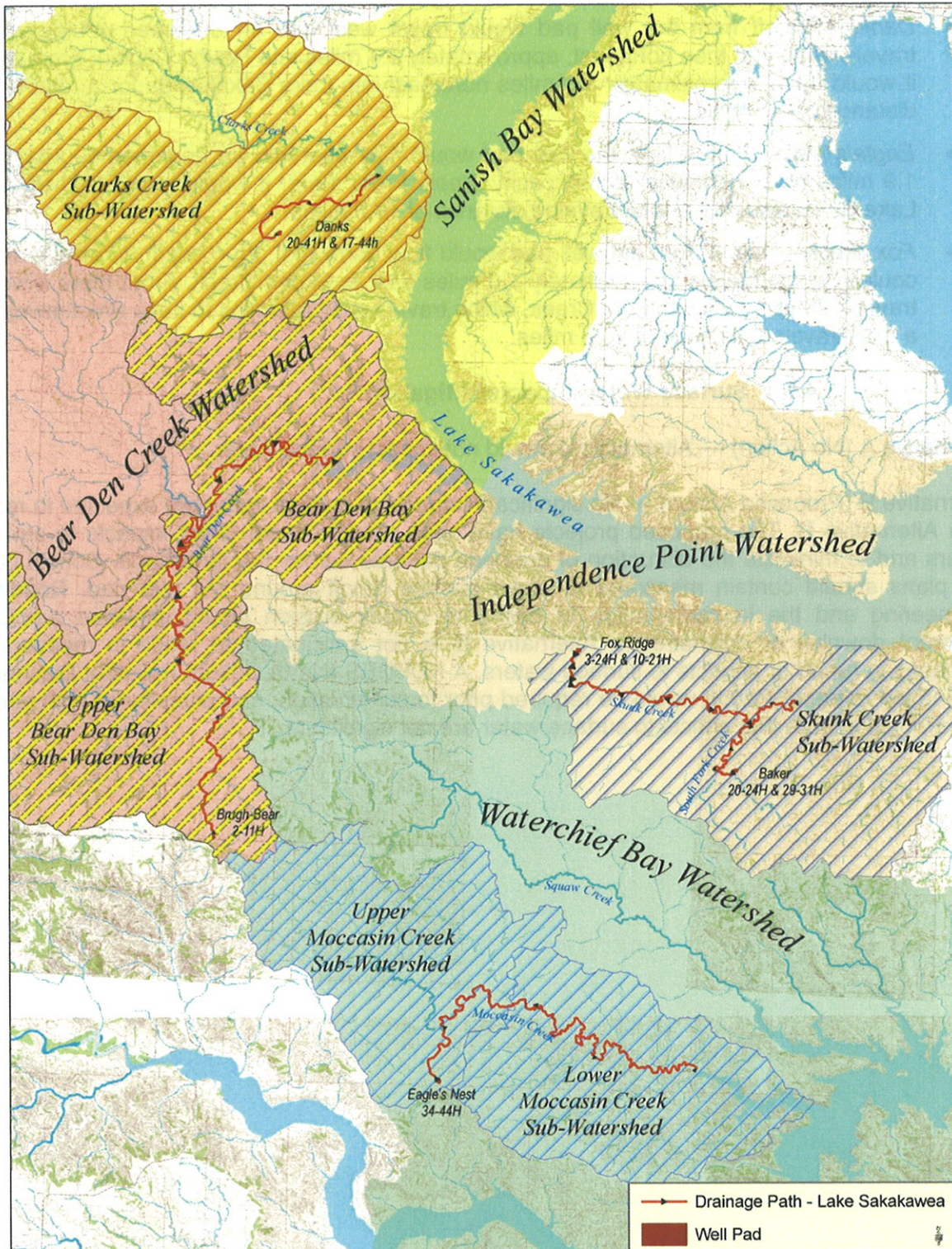


Figure 3-2, Surface Water Resources

3.4.2 Ground Water

The North Dakota State Water Commission's electronic records reveal that there is one permitted stock well within one-mile of the Brugh-Bear well pad and one permitted domestic well within one-mile of the Fox Ridge pad. There are no additional active or permitted water wells or ground water-fed surface water impoundments immediately within the proposed well pad or access road areas. The nearest aquifer to the proposed well pads is the Fort Union aquifer which is located north of the Brugh-Bear and Eagle's Nest well pads, south of the Danks well pad, and west of the Baker and Fox Ridge well pads. However, no sole source aquifers have been identified within the state of North Dakota. ***Please refer to Figure 3-3, Aquifers and Ground Water Wells.***

3.4.2.1 Ground Water Impacts/Mitigation

Alternative A (No Action) — Alternative A would not impact ground water.

Alternative B (Proposed Action) — No significant impacts to ground water are expected to result from Alternative B. No aquifers or groundwater wells are located within the proposed spacing units. As required by applicable law, all proposed wells would be cemented and cased to isolate aquifers from potentially productive hydrocarbon and disposal/injection zones. In addition, reserve pits would be located away from areas of shallow ground water, primarily located at the Eagle's Nest site, and have a synthetic liner to prevent potential leaks.

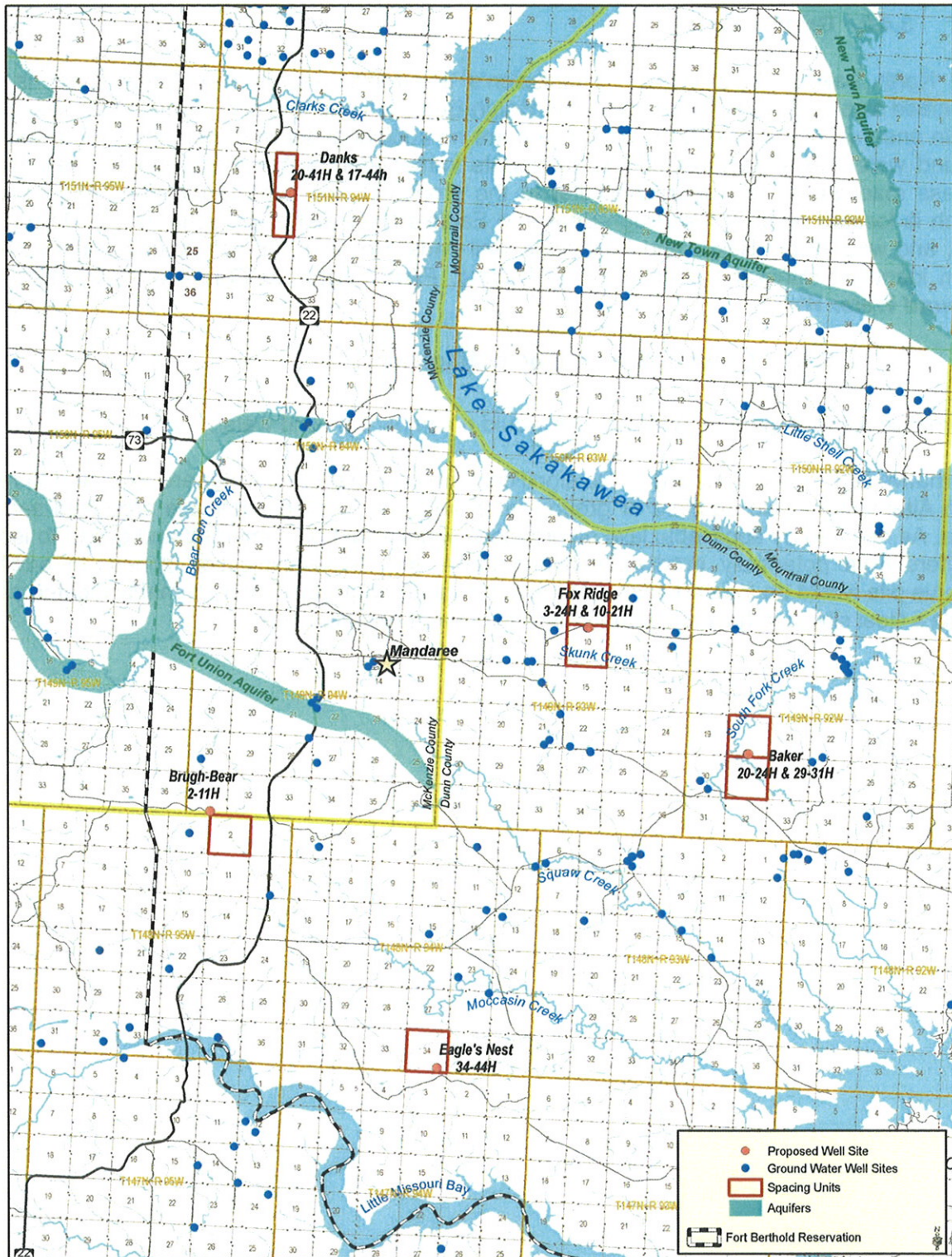


Figure 3-3, Aquifers and Ground Water Wells

3.5 Air Quality

The Clean Air Act, as amended, requires the EPA (Environmental Protection Agency) 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 25 miles south of the Baker well site, 23 miles south of the Brugh-Bear well site, 37 miles south of the Danks well site, 16 miles south of the Eagle's Nest well site, and 27 miles south of the Fox Ridge well 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, and current air quality data for Dunn and McKenzie counties, are summarized in **Table 3.3, Federal and State Air Quality Standards and County Data (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). In addition, monitoring data for Dunn and McKenzie Counties shows that the counties are currently well within air quality standards.

Pollutant	Averaging Period	EPA Air Quality Standard ³	NDDH Air Quality Standard	Dunn County Air Quality Data	McKenzie County Air Quality Data
SO ₂	24-Hour	0.14 ppm	0.099 ppm	0.003 ppm	0.004 ppm
	Annual Mean	0.030 ppm	0.023 ppm	0.000 ppm	0.001 ppm
PM ₁₀	24-Hour	150 µg/m ³	150 µg/m ³	53 µg/m ³	45 µg/m ³
	Annual Mean	50 µg/m ³	50 µg/m ³	15 µg/m ³	11 µg/m ³
PM _{2.5}	24-Hour	35 µg/m ³	35 µg/m ³	—	—
	Weighted Annual Mean	15 µg/m ³	15 µg/m ³	—	—
NO ₂	Annual Mean	0.053 ppm	0.053 ppm	0.002 ppm	0.001 ppm
CO	1-Hour	35 ppm	35 ppm	—	—
	8-Hour	9 ppm	9 ppm	—	—
Pb	3-Month	1.5 µg/m ³	1.5 µg/m ³	—	—
O ₃	1-Hour	0.12 ppm	0.12 ppm	0.065 ppm	0.067 ppm
	8-Hour	0.08 ppm	0.08 ppm	0.060 ppm	0.062 ppm

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

³ Emissions for SO₂, NO₂, CO, and O₃ are measured in ppm (parts per million) while Pb and PM emissions are measured in µg/m³ (microgram per cubic meter).

than 5,000 acres designated prior to 1977. There are no Federal Class I areas⁴ within the project area. The Theodore Roosevelt National Park is the nearest Class I area, located approximately 36 miles west of the Baker wells, 23 miles west of the Brugh-Bear well, 31 miles west of the Danks wells, 29 miles west of the Eagle's Nest well, and 33 miles west of the Fox Ridge well.

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 of the project would result in temporary dust generation and minor gaseous emissions of PM, SO₂, NO₂, CO, and volatile organic compounds, as well as permanent emissions associated with gas flaring and truck traffic to and from the sites. 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 black-footed ferret, gray wolf, interior least tern, pallid sturgeon, and whooping crane as endangered species that may be found within Dunn and McKenzie counties. Both counties include the potential for occurrence of the threatened piping plover and candidate Dakota skipper. In addition, Dunn and McKenzie counties contain designated critical habitat for the piping plover adjacent to Lake Sakakawea. None of these species were observed in the field. Habitat requirements, the potential for suitable habitat within the project areas, and other information regarding listed species for Dunn and McKenzie counties are as follows:

⁴ Federal Class I areas are generally national parks and wilderness 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.

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 three 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 three miles away at its nearest 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 three miles away at the closest point to the project areas.

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 three 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.

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 Kadmas, Lee & Jackson on September 29 and 30, 2009. Data gathered from these surveys, as well as from the USFWS, North Dakota Parks and Recreation Department, and North Dakota Game and Fish Department, are summarized below.

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 pads 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, non-game species, raptors, as well as their potential habitats, were identified. With the exception of the Baker and Eagle's Nest sites, the project areas all contain suitable habitat for antelope, elk, mule deer, whitetail deer, cottontail rabbit, pheasant, sharp-tail grouse, turkey, coyote, fox, jack rabbit, mountain lion, porcupine, prairie dog, song birds, bald eagle, golden eagle, and red-tailed hawk. Pheasant would likely not occur at the Baker site due to lack of ground cover, while whitetail deer would likely not occur at the Eagle's Nest site due to the upland nature of the area more suited to mule deer. In addition, suitable habitat for beaver occurs at the Baker well site and suitable habitat for badger occurs at the Brugh-Bear and Danks sites.

Mule deer were observed at the Baker well site, song sparrows were observed at the Danks and Fox Ridge well sites, and red-tailed hawk and turkey were also observed at the Danks well site. No wildlife species were observed at the Brugh-Bear and Eagle's Nest well sites during the site visits.

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, motion and lights associated with having a drilling rig on site should be sufficient to deter any wildlife from entering the area. Reserve pits cannot be netted during the drilling portion as they would easily be torn up during normal drilling operations, and the reserve pit would not be functional if netted. Immediately after the drilling rig leaves the location, reserve pits are netted with State and Federal approved nets. These will remain in place until 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 majority of the project areas occurred on upland sites dominated by mixed-grass prairie. The mixed-grass prairie consisted mainly of green needlegrass (*Stipa viridula*), Western wheatgrass (*Pascopyrum smithii*) and blue grama (*Bouteloua gracilis*); with the exception of the Eagle's Nest site, which was not dominated by Western wheatgrass.

Western snowberry (*Symphoricarpos occidentalis*) and Kentucky bluegrass (*Poa pratensis*) were intermixed with the majority of the plant communities at all of the project areas. In addition, silver sagebrush (*Artemisia cana*), cudweed sagewort (*Artemisia ludoviciana*), and Western sagewort (*Artemisia frigid*) occurred in areas of sparse vegetation at the Eagle's Nest well 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. **Please refer to Figure 3-4, Example of Prairie Sand Reed (Eagle's Nest Site).** The vegetation at the hilltop portion of the Baker well site is currently experiencing severe livestock grazing with visible hoof action.



**rie Sand Reed
le's Nest Site)**



Several hardwood draws occurred within or adjacent to the Brugh-Bear, Danks, and Eagle's Nest well sites. Hardwood draws consisted mainly of green ash (*Frazinus pennsylvanica*), American elm (*Ulmus americana*), and silver buffalo berry (*Shepherdia argentea*). **Please refer to Figure 3-5, Example of Silver Buffalo Berry and Green Ash (Eagle's Nest Site).** In addition, creeping juniper (*Juniperus horizontalis*) also occurred at the Eagle's Nest well site. The Fox Ridge well site did have scattered silver buffalo berry plants, but no hardwood draws. **Please refer to Figures 3-6 to 3-10 for representative vegetation at each project area.**



Site Vegetation



Site Vegetation



3-10, Fox Ridge Site Vegetation

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), six are known to occur in Dunn County and 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. Dunn County has listed no additional species. No noxious weeds were observed during the field survey.

Common Name	Scientific Name	Dunn County Acres	McKenzie County Acres
Absinth wormwood	<i>Artemisia abinthium</i> L.	38,600	43
Black henbane	<i>Hyoscyamus niger</i>	N/A	—
Canada thistle	<i>Cirsium arvense</i> (L.) Scop	32,800	4,300
Dalmation toadflax	<i>Linaria genistifolia</i> ssp. <i>Dalmatica</i>	1	—
Diffuse knapweed	<i>Centaurea diffusa</i> Lam	N/A	—
Field bindweed	<i>Convolvulus arvensis</i> L.	33,000	—
Hoary cress	<i>Cardaria draba</i>	N/A	—
Houndstongue	<i>Cynoglossum officinale</i>	N/A	—
Leafy spurge	<i>Euphorbia esula</i> L.	10,500	1,300
Musk thistle	<i>Carduus nutans</i> L.	2	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>	N/A	—

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 following construction activities, and a noxious weed management plan would be implemented to prevent the spread of noxious weeds and non-native species.

3.8 Cultural Resources

Cultural resources is a broad term encompassing sites, objects, or practices of archaeological, historical, cultural and religious significance. 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. 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). As a result, BIA consults and corresponds with the THPO on all projects proposed within the exterior boundaries of the Fort Berthold Reservation. The MHA Nation has also designated responsible parties for consultations and actions under NAGPRA and cultural resources generally.

Cultural resource inventories of these well pads and access roads were conducted by personnel of Beaver Creek Archaeology, Inc. and Earthworks, Inc. (now Kadrmas, Lee & Jackson, Inc.), using a pedestrian methodology. For the Baker #20-34H and Baker #29-31H (formerly Baker #20-24H) project approximately 34.2 acres were intensively inventoried on October 9, 2008 (Morrison 2008a), and again 51 acres were inventoried on November 18, 2009 (Burns 2009a). For the Brugh-Bear #2-11H (formerly Brugh #31-34H) project approximately 11 acres were inventoried on October 9, 2008 (Morrison 2008b); for the Danks #17-44H and Danks #20-41H project approximately 20 acres were inventoried on July 15, 2008 (Harty 2008); for the Eagles Nest #34-44H project approximately 43 acres were inventoried on July 15, 2009 (Pollman and Burns 2009); and for the Fox Ridge #3-24H and Fox Ridge #10-21H project approximately 20 acres were inventoried on October 5, 2009 (Burns 2009b). No historic properties were located within any 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 determinations of **no historic properties affected** for these undertakings. This determination was communicated to the THPO for the Danks #17-44H project on May 19, 2009, and the THPO concurred on May 21, 2009 (see Chapter 4.3). The same determination was communicated to the THPO for the Brugh #31-34H project on November 17, 2008, for the Baker #20-24H project on November 28, 2008, for the Baker #20-34H and Baker #29-31H project on December 7, 2009, for the Eagles Nest #34-44H project on September 1, 2009, and for the Fox Ridge #3-24H and Fox Ridge #10-21H project on November 16, 2009. However, no response was received from the THPO within the allotted 30-day comment period for any of these four 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. A determination of effect is pending from BIA. 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 Dunn and McKenzie Counties 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 3.6, Employment and Income.**

Table 3.6 Employment and Income				
Location	Per Capita Income	Median Household Income	Unemployment Rate	Individuals Living Below Poverty Level
Dunn County	\$14,642	\$30,015	6.4%	17.5%
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 Dunn and McKenzie Counties' populations have 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 Dunn County, McKenzie County, and the state of North Dakota. **Please refer to Table 3.7, Demographic Trends.**

Table 3.7
Demographic Trends

Location	Population in 2000	% of State Population	% Change 1990–2000	Predominant Race	Predominant Minority
Mountrail County	6,631	1.03%	-5.6%	White	American Indian (30%)
Dunn County	3,600	0.56%	-10.1%	White	American Indian (12%)
McKenzie County	5,737	0.89%	-10.1%	White	American Indian (21%)
Fort Berthold Reservation	5,915	0.92%	+9.8%	American Indian ⁵	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 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 incomes. 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

⁵ According to the North Dakota Tourism Division, there are 10,400 enrolled members of the Three Affiliated Tribes.

Alternative A (No Action) — Alternative A would not result in disproportionate impacts to minority or low-income populations.

Alternative B (Proposed Action) — Alternative B is not anticipated to result in disproportionately adverse impacts to minority or low-income populations. 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 and access points, utilities, and facilities for water, wastewater, and solid waste.

With the exception of the Baker site which has no existing or proposed rural water distribution pipelines within the vicinity of the site, 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 distribution 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. Although the scoping letter referring to this project (dated October 14, 2009) elicited no response from any counties in North Dakota, it has come to Peak's attention that there is some concern both on and off the Fort Berthold Indian Reservation regarding the movement of oversize/overweight loads across local, state and county roads in the project area. Peak has contacted both Dunn and McKenzie Counties, the North Dakota Association of Counties, the North Dakota Association of Oil and Gas Producing Counties, as well as the NDDOT to obtain all rules and regulations regarding rig moves and oversize/overweight loads on state and county roads in the project area. Peak's contractors currently permit their oversize / overweight loads through these agencies and Peak will ensure that all contractors working for the company will continue to adhere to all local, county, and state regulations and ordinances regarding rig moves, oversize/overweight loads, and frost law restrictions.

Construction of the Brugh-Bear, Danks, Eagle's Nest, and Fox Ridge 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. 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. Depending on the produced water handling method, an Underground Injection Control Permit or a NDPDES Permit for disposal and/or discharge may be needed.

Depending on produced water quality and quantity, a comprehensive water management plan may be implemented to reduce impacts to water resources.

3.12 Public Health and Safety

Health and safety concerns include hydrogen sulfide (H₂S) gas⁶, 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, Peak North Dakota, LLC, would prepare H₂S Contingency Plans and submit them 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 four residences within 3,000 feet of the proposed Brugh-Bear site, the closest of which is approximately 1,109 feet south-southeast of the proposed well. No residences were identified within 3,000 feet of the proposed Baker, Danks, Eagle's Nest, and Fox Ridge sites.

Hazardous Materials

The EPA (Environmental Protection Agency) 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

⁶ 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.

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 day.⁷ 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 production.⁸ Established load restrictions for state and BIA roadways would be followed and haul permits would be acquired as appropriate.

3.13 Cumulative Considerations

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

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 3-11, Existing and Proposed Oil and Gas Wells.***

Two active oil and gas wells exist approximately one mile from the Eagle’s Nest site and one active oil and gas well exists approximately one mile from the Fox Ridge site. No active oil wells are within one mile of the Baker, Brugh-Bear, or Danks sites. The nearest proposed oil and gas well is located approximately one mile from the Baker site. ***Please refer to Table 3.8, Summary of Active and Proposed Wells.*** Commercial success at any new well may result in additional nearby oil/gas exploration proposals, but such developments remain speculative until APDs have been submitted to the BLM or BIA. In addition, 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.

Distance from Sites	Number of Active or Proposed Wells
1 mile radius	3
5 mile radius	48
10 mile radius	306
20 mile radius	843

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 the Eagle’s Nest and Fox Ridge sites.

⁷ 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.

⁸ 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.

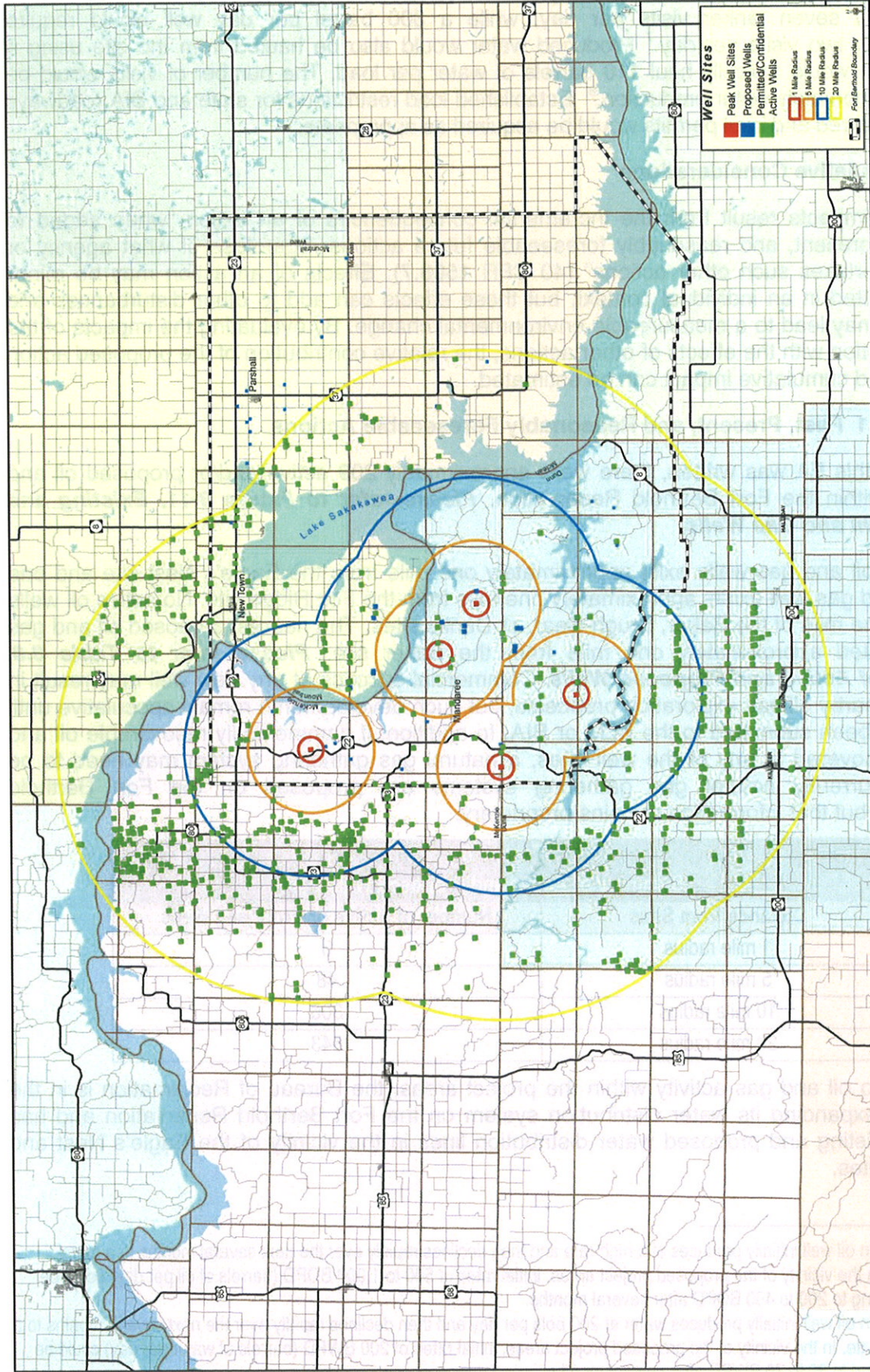


Figure 3-11, Existing and Proposed Oil and Gas Wells

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 practice of sharing access roads would minimize the cumulative conversion of existing land uses. 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. Dunn and McKenzie County are 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, 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 best management practices 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 Irretrievable 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 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 roads and well pads 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 Peak North Dakota, LLC, 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.
- *Application for Permit to Drill*—An APD will be submitted to the North Dakota Industrial Commission (NDIC). The APD will be prepared and submitted according to NDIC guidelines. NDIC 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 Peak North Dakota, LLC:

- 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.
- Peak 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, Peak 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 Peak North Dakota, 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**.

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	
Peak North Dakota, LLC	Sheila Thompson	Manager, Regulatory Affairs	Project development, document review
	Alex McLean	President	
Kadrmass, Lee & Jackson, Inc.	Shanna Braun	Environmental Scientist	Client and agency coordination, purpose and need development
	Charlotte Brett	Environmental Planner	Senior review
	Steve Czczok	Environmental Scientist	Field resources surveys
	Jennifer Harty	Principal Investigator	Cultural resources surveys
	Becky Rude	Environmental Planner	Impact assessment
	Skip Skattum	GIS Analyst	Impact assessment, exhibit creation
Beaver Creek Archaeology	Wade Burns	Principal Investigator	Cultural resources surveys

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 14, 2009. This scoping package included a brief description of the proposed project, as well as a location map. 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 period, 10 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.**



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

MAY 19 2009

Perry No Tears Brady, THPO
Mandan, Hidatsa and Arikara Nation
PO Box 429
Parshall, North Dakota 58770

Dear Mr. Brady:

We have considered the potential effects on cultural resources of an oil well pad and access road in McKenzie County, North Dakota. Approximately 20 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas 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. One "area of concern" was located which may 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, as the area of concern will be avoided. Catalogued as **BIA Case Number AAO-1513/FB/08**, the proposed undertaking, location, and project dimensions are described in the following report:

Harty, Jennifer L.
(2009) Danks 17-44H Well Pad and Access Road: A Class III Cultural Resource Investigation 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



TRIBAL HISTORIC PRESERVATION

Mandan Hidatsa Arikara

Perry 'No Tears' Brady, Director.

404 Frontage Road,

New Town, North Dakota 58763

Ph/701-862-2474 fax/701-862-2490

pbrady@mhanation.com

May 21, 2009

Mike Black
Regional Director
Bureau of Indian Affairs
Great Plains Regional Office
115 Fourth Avenue SE
Aberdeen, SD, 57401

RE: Project # AAO-1513/FB/08
Danks 17-44H Well pad & access road

Mr. Black:

After review of the documentation provided by your Office, the Mandan Hidatsa Arikara Nations Tribal Historic Preservation Office concurs with the determination of 'No Adverse Affect'/'No Historic Properties Affected' to any pre and post-historic relics, artifacts or sacred and cultural resources in the proposed Project area.

We respectfully request to be notified should any NAGPRA issue or others arise as the Project progresses.

Sincerely,

Perry 'No Tears' Brady,
Tribal Historic Preservation Officer,
Mandan Hidatsa Arikara Nations.



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 28 2008

Perry 'No Tears' Brady, THPO
Mandan, Hidatsa and Arikara Nation
PO Box 429
Parshall, North Dakota 58770

Dear Mr. Brady:

We have considered the potential effects on cultural resources of an oil well pad and access road in Dunn County, North Dakota. Approximately 34.2 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. Three "areas of concern" may 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, as the areas of concern will be avoided. Catalogued as **BIA Case Number AAO-1571/FB/09**, the proposed undertaking, location, and project dimensions are described in the following report:

Morrison, John G.
(2008) Baker 20-24H Well Pad and Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. Earthworks for Peak North Dakota LLC, Durango, CO.

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, Archeologist, at (605) 226-7656.

Sincerely,

(sgd) Roy Pulfrey

ACTING Regional Director

Enclosure

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

DEC 07 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 a dual oil well pad and access road in Dunn County, North Dakota. Approximately 51 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 be eligible according to 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-1641/FB/09**, the proposed undertaking, location, and project dimensions are described in the following report:

Burns, Wade
(2009) Baker #20-34H and Baker #29-31H Dual Well Pad and Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. Beaver Creek Archaeology for Peak North Dakota, LLC, Durango, CO.

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 Archacologist, 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

NOV 17 2008

Perry 'No Tears' Brady, THPO
Mandan, Hidatsa and Arikara Nation
PO Box 429
Parshall, North Dakota 58770

Dear Mr. Brady:

We have considered the potential effects on cultural resources of an oil well pad and access road in Dunn County, North Dakota. Approximately 11 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. Two "areas of concern" may 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, as the areas of concern will be avoided. Catalogued as **BIA Case Number AAO-1571/FB/09**, the proposed undertaking, location, and project dimensions are described in the following report:

Morrison, John G.
(2008) Brugh 31-34H Well Pad and Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. Earthworks for Peak North Dakota LLC, Durango, CO.

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, Archeologist, at (605) 226-7656.

Sincerely,

(sgd) Michael S. Black

Regional Director

Enclosure

cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency
208:CMURDY:bkb:X7656:11/17/08:O:\cultural resources\NHPA\project files\A04-FtBerthold\2009\AAO1571afb.prj.DOC
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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

SEP 01 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 and access road in Dunn County, North Dakota. Approximately 43 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. Four previously recorded archaeological sites (32DU304, 32DU305, 32DU306, 32DU1313) and eight isolated finds are located within the area of potential effect of the access road. Of these, previous testing has shown sites 32DU306 and 32DU1313 and the isolated finds to be ineligible for the National Register of Historic Places, and that the affected portions of sites 32DU304 and 32DU305 do not contribute to their potential eligibility, which is otherwise unevaluated according to 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 adverse effect** for this undertaking. Catalogued as **BIA Case Number AAO-1641/FB/09**, the proposed undertaking, location, and project dimensions are described in the following report:

Pollman, Jennifer, and Wade Burns
(2009) Eagle's Nest #34-44H Well Pad & Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. Beaver Creek Archaeology for Peak North Dakota, LLC, Durango, Colorado.

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
Chief, Division of Energy and Environment



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 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 Dunn County, North Dakota. Approximately 20 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 be eligible according to 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-1641/FB/09**, the proposed undertaking, location, and project dimensions are described in the following report:

Burns, Wade
(2009) Fox Ridge #10-21H and Fox Ridge #3-24H Dual Well Pad: A Class III Cultural Resource Inventory, Dunn County, North Dakota. Beaver Creek Archaeology for Peak North Dakota, LLC, Durango, CO.

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

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>>.
- Burns, Wade. 2009a. Baker #20-34H and Baker #29-31H Dual Well Pad and Access Road: A Class III Cultural Resource Inventory, Dunn County. North Dakota. Beaver Creek Archaeology for Peak North Dakota, LLC, Durango, CO
- _____. 2009b. Fox Ridge #10-21H and Fox Ridge #3-24H Dual Well Pad: A Class III Cultural Resource Inventory, Dunn County. North Dakota. Beaver Creek Archaeology for Peak North Dakota, LLC, Durango, CO.
- "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. 2009. Danks 17-44H Well Pad and Access Road: A Class III Cultural Resource Investigation in McKenzie County, North Dakota. KLJ Cultural Resources for Peak North Dakota LLC, Durango, CO.
- "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>.

“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>>.

Morrison, John G. 2008a. Baker 20-24H Well Pad and Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. Earthworks for Peak North Dakota LLC, Durango, CO.

_____. 2008b. Brugh 31-34H Well Pad and Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. Earthworks for Peak North Dakota LLC, Durango, CO.

North Dakota Agricultural Experiment Station. 1982. Soil Survey for Dunn County, North Dakota. U.S. Department of Agriculture, Soil Conservation Service. U.S. Government Printing Office.

_____. 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/>>.

Pollman, Jennifer, and Wade Burns. 2009. Eagle's Nest #34-44H Well Pad & Access Road: A Class III Cultural Resource Inventory, Dunn County, North Dakota. Beaver Creek Archaeology for Peak North Dakota, LLC, Durango, CO.

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

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

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

October 14, 2009

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

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

Dear <<NAME>>,

On behalf of Peak North Dakota, LLC, Kadrmias, 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 of five wells pads and the drilling and completion of up to eight exploratory oil and gas wells on the Fort Berthold Reservation. These well sites are proposed to be positioned in the following locations:

- Baker #20-34H and 29-31H located in T149N, R92W, Section 20 (two wells)
- Brugh-Bear #2-11H located in T149N, R94W, Section 31 (one well)
- Danks #17-44H and 20-41H located in T151N, R94W Section 17 (two wells)
- Eagle's Nest #34-44H located in T148N, R94W, Section 34 (one well)
- Fox Ridge #3-24H and #10-31H located in T149N, R93W, Section 10 (two wells)

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 14, 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.

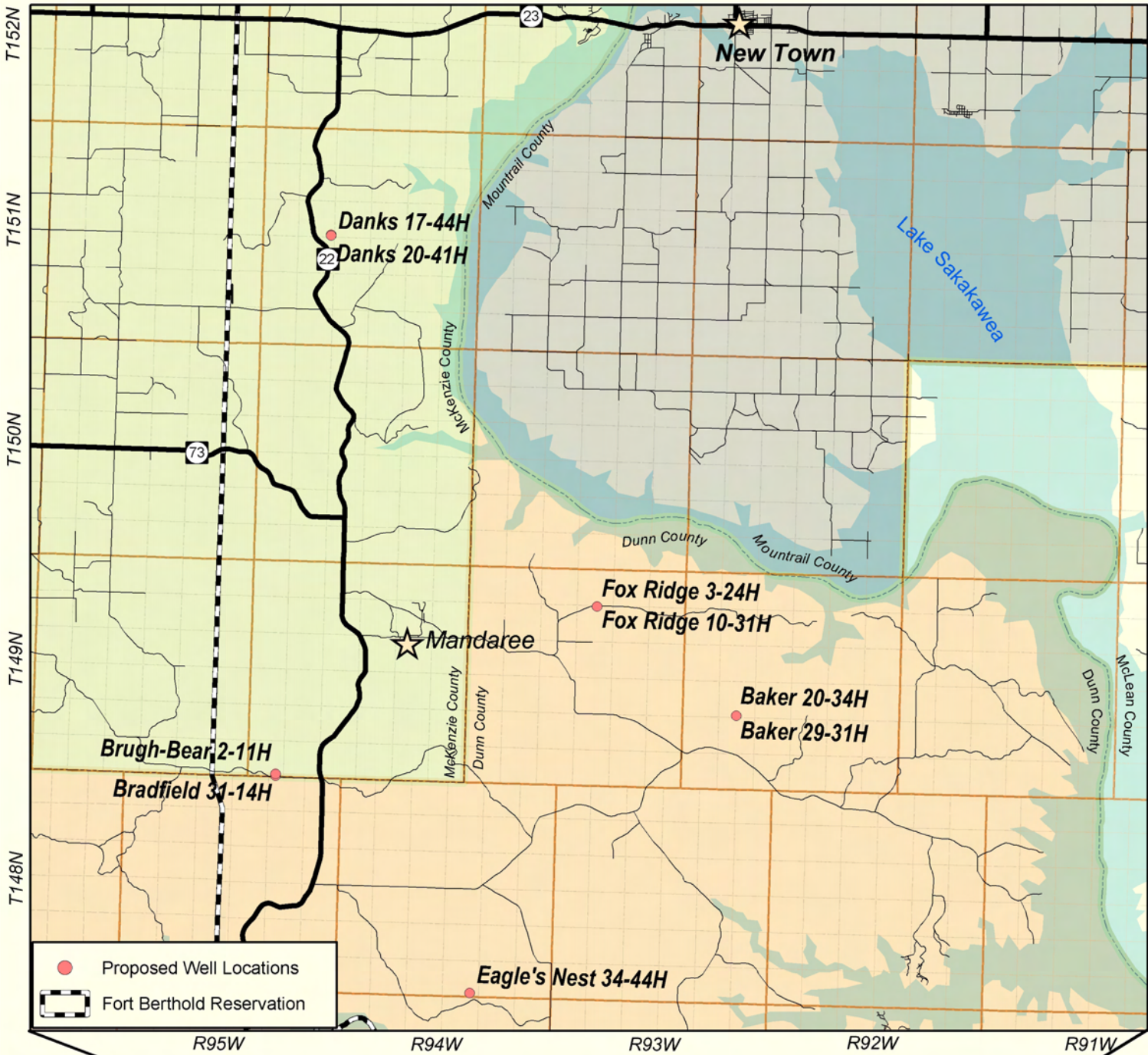
Sincerely,

Kadrmass, Lee & Jackson, Inc.

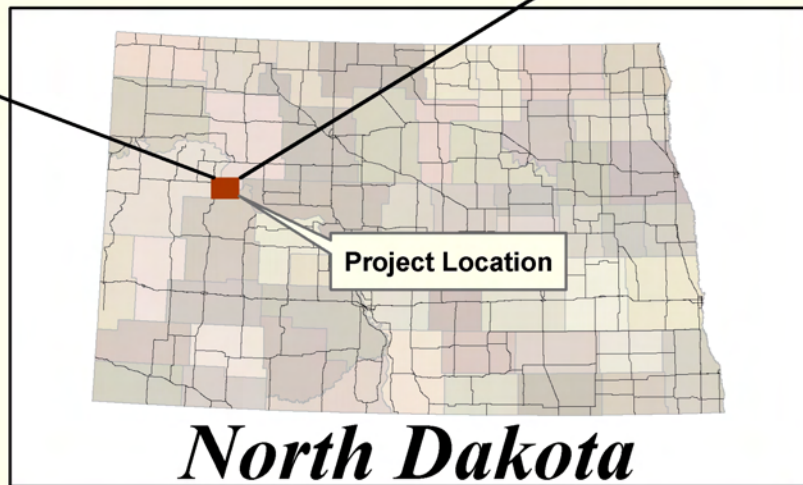


Shanna Braun
Environmental Planner

Enclosure (Map)



**Peak North Dakota, LLC
Proposed Oil & Gas
Exploratory Wells**



North Dakota



**Peak Exploratory Wells
Fort Berthold Reservation
Scoping Mailing List**

CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip
Mr.	Merl	Paaverud	State Historic Perservation Officer		State Historical Society	612 E. Boulevard Ave.	Bismarck	ND	58505-0830
Sir		or Madam	Chief Missile Engineer	5 CES/CEOE	Minot Air Force Base	320 Peacekeeper 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	Bureau of Reclamation	PO Box 1017	Bismarck	ND	58502-1017
Mr.	Steve	Obenauer	Manager	Bismarck Airports District Office	Federal Aviation Administration	2301 University Drive, Bldg 23B	Bismarck	ND	58504
Mr.	Dan	Cimarosti	Manager	ND Regulatory Office	US Army Corps of Engineers	1513 S. 12th St.	Bismarck	ND	58504
Mr.	Charles	Sorensen	Natural Resource Specialist	Riverdale Field Office	US Army Corps of Engineers	PO Box 527	Riverdale	ND	58565
Ms.	Candace	Gorton	Chief, Env., Economics, & Cultural Resource Section	Omaha District	US Army Corps of Engineers	106 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 Linest Substations	ND Maintenance Office	US Department of Energy Western Area Power Admin.	PO Box 1173	Bismarck	ND	58502-1173
Mr.	Larry	Svoboda	Director	NEPA Program, Region 8	US Environment Protection Agency	1595 Wynkoop Street	Denver	CO	80202-1129
Mr.	Richard	Clark	Wetlands 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 Fish & Wildlife Service	3425 Miriam Ave.	Bismarck	ND	58501
Ms.	Cheryl	Kulas	Executive Director		Indian Affairs Commission	600 E. Blvd. Ave. 1st Floor, Judicial Wing, Rm 117	Bismarck	ND	58505-0300
Mr.	Greg	Wiche	Director	Water Resources Division	US Geological Survey	821 E. Interstate Ave.	Bismarck	ND	58501
Mr.	L. David	Glatt	Chief	Environmental Health Section Gold Seal Center	ND Department of Health	918 E. Divide Ave., 4th floor	Bismarck	ND	58501-1947
Mr.	Mike	McKenna	Chief	Conservation & Communication Division	ND Game & Fish Department	100 Bismarck Expressway	Bismarck	ND	58501-5095
Mr.	Doug	Prchal	Director		ND Parks & Recreation Dept.	1600 E. Century Ave., Suite 3	Bismarck	ND	58503-0649
Mr.	Dale	Frink	State Engineer		ND State Water Commission	900 E. Blvd. Ave.	Bismarck	ND	58505-0850
Mr.	Bill	Boyd	Construction Manager		Midcontinent Cable Company	719 Memorial Hwy	Bismarck	ND	58501
Mr.	Doug	Dixon	General Manager	Badlands Region	Montana Dakota Utilities	PO Box 1406	Williston	ND	58802-1406
Mr.	George	Berg	Manager		NoDak Electric Coop., Inc.	Box 13000	Grand Forks	ND	58208-3000
Mr.	Ken	Miller		Land Department	Northern Border Pipeline Company	13710 FNB Parkway	Omaha	NE	68154-5200
Mr.	Ray	Christenson	Manager/CEO		Southwest Water Authority	4665 2nd St. W.	Dickinson	ND	58601
Mr.	David C.	Schelkoph	CEO		West Plains Electric Coop., Inc.	PO Box 1038	Dickinson	ND	58602-1038
Sir		or Madam	Manager		Xcel Energy	PO Box 2747	Fargo	ND	58108-2747
Sir		or Madam	Manager		Upper Missouri G & T Electric Cooperative	8860 Highway 200	Halliday	ND	58636
Sir		or Madam	Manager		McKenzie Electric Cooperative, Inc.	10686 Highway 200	Killdeer	ND	58640
Sir		or Madam	Manager		Roughrider Electric Cooperative	1173 3rd Ave W	Dickinson	ND	58601
Mr.	Walt	Peterson	District Engineer	Williston District	ND Department of Transportation	605 Dakota Parkway West	Williston	ND	58802-0698
Mr.	Larry	Gangle	District Engineer	Dickinson District	ND Department of Transportation	1700 3rd Ave West, Suite 101	Dickinson	ND	58601-3009
Mr.	Lonny	Bagley	Field Office Manager	North Dakota Field Office	Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Mr.	Mike	Nash	Assistant Field Office Manager	Division on Mineral Resources	Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Mr.	Michael	Seivage	Tribal Chairman		Sisseton-Wahpeton Sioux Tribe	PO Box 509	Sisseton	SD	57262-0267
Mr.	Myra	Pearson	Tribal Chairman	Ft. Totten Tribal Business Office	Spirit Lake Sioux Tribe	PO Box 359	Ft. Totten	ND	58325
Mr.	Ron	His Horse Is Thunder	Tribal Chairman		Standing Rock Sioux Tribe	PO Box D	Fort Yates	ND	58538
Mr.	Perry	Brady	Tribal Historic Preservation Officer		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Mr.	Marcus	Levings	Tribal Chairman		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Mr.	David	Brien	Tribal Chairman		Turtle Mountain Chippewa	PO Box 900	Belcourt	ND	58316-0900
Mr.	Damon	Williams	Tribal Attorney		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Fred	Fox	Director	Energy Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Ms.	V. Judy	Brugh	Representative	Four Bears Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Arnold	Strahs	Representative	Mandaree Segment	Three Affiliated Tribes	PO Box 665	Mandaree	ND	58757
Mr.	Scott	Eagle	Representative	Shell Creek Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Mervin	Packineau	Representative	Parshall/Lucky Mound Segment	Three Affiliated Tribes	PO Box 468	Parshall	ND	58770

SOV MASTER LIST

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

CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip
Mr.	Frank	Whitecalf	Representative	White Shield Segment	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Barry	Benson	Representative	Twin Buttes Segment	Three Affiliated Tribes	70879 E Ave NW	Halliday	ND	58636
Mr.	Fred	Poitra		Game and Fish Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Todd	Hall		Natural Resources Department	Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr.	Roger	Hovda	Operations Manager		Reservation Telephone Cooperative	PO Box 68	Parshall	ND	58770-0068
Ms.	Sheila	Thompson			Peak North Dakota, LLC	1910 Main Avenue	Durango	CO	81301
Mr.	Ray	Kadmas	Chair	County Commission	Dunn County	PO Box 105	Manning	ND	58642-0105
Mr.	Reinhard R.	Hauck	Auditor		Dunn County	PO Box 105	Manning	ND	58642-0105
Ms.	Frances M.	Olson	Auditor		McKenzie County	PO Box 543	Watford City	ND	58854-0543
Mr.	Richard C.	Cayko	Chair	County Commission	McKenzie County	PO Box 543	Watford City	ND	58854-0543

Appendix B
Agency Scoping Response

**Peak North Dakota, LLC
Up to Eight Proposed Exploratory Oil and Gas Wells
Fort Berthold Reservation
List of Agency Scoping Responses**

Federal

US Department of Agriculture – Natural Resources Conservation Service
US Department of Defense – Army Corps of Engineers, North Dakota Regulatory Office
US Department of Defense – Army Corps of Engineers, Omaha District
US Department of the Interior – Bureau of Reclamation
US Department of the Interior – Fish and Wildlife Service

State

North Dakota Department of Health
North Dakota Department of Parks and Recreation
North Dakota Game and Fish Department
North Dakota State Water Commission
State Historical Society of North Dakota



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

October 19, 2009

Shanna Braun
Kadmas Lee & Jackson
1505 S 30th Avenue
Moorhead, MN 56561-0096

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

Dear Ms. Braun:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated October 14, 2009, regarding up to eight proposed oil and gas exploratory wells on the Fort Berthold Reservation.

Important Farmlands - NRCS has a major responsibility with Farmland Protection Policy Act (FPPA) in documenting conversion of farmland (i.e., prime, statewide, and local importance) to non-agriculture use when federal funding is used. If your project consists of farmland being removed from production FPPA will apply.

For those areas subject to FPPA, the following form must be completed. Enclosed is a Farmland Conversion Impact Rating Form AD-1006 or you may utilize a fillable, web based form at http://www.nrcs.usda.gov/Programs/fppa/pdf_files/AD1006.PDF to record the following. You will need to complete Part I and Part III. We will also need a map, at an appropriate scale, so we can accurately assess the area (e.g., 1:20,000 or 1:24,000). If the farmland (i.e., prime, statewide, and local importance) is determined to be subject to the FPPA, we will then complete Parts II and IV. NRCS will measure the relative value of the site as farmland on a scale of 0 to 100, according to the information sources listed in CFR, Sec. 658.5(a). If FPPA applies to this site, Form AD-1006 will be returned to Kadmas Lee & Jackson for completion of Part VI, Site Assessment Criteria.

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. The Natural Resource conservation Service has developed the following guidelines to help avoid impacts to wetlands and possible loss of USDA benefits for producers. If these guidelines are followed, the impacts to the wetland will be considered minimal allowing USDA participants to continue to receive USDA benefits. Following are the requirements: 1) Disturbance to the wetland(s) must



Ms. Braun
Page 2

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.

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:

Susan Thuy, DC, NRCS, Kildeer, ND
Kyle Hartel, DC, NRCS, Watford City, ND
Terry Gisvold, ASTC (FO), NRCS, Dickinson, ND



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
1513 SOUTH 12TH STREET
BISMARCK ND 58504-6640
October 23, 2009

North Dakota Regulatory Office

[NWO-2009-02641-BIS]

Kadrmass Lee & Jackson
Attn: Shanna Braun
1505 S 30th Avenue
PO Box 96
Moorhead, Minnesota 56561-0096

Dear Ms. Braun:

This is in response to your solicitation letter on behalf of **Peak North Dakota, LLC**, received on October 15, 2009 requesting Department of the Army (DA), United States Army Corps of Engineers (Corps) comments on up to eight proposed oil and gas exploratory wells within the Fort Berthold Reservation. The proposed eight wells include; **Baker #20-34H and 29-31H (two wells); Brugh-Bear #2-11H; Danks #17-44H and 20-41H (two wells); Eagle's Nest #34-44H; and Fox Ridge #3-24H and #10-31H (two wells)**. The proposed projects are located within Dunn and McKenzie Counties, North Dakota.

Corps Regulatory Offices administer Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act regulates work in or affecting navigable waters. This would include work over, through, or under Section 10 water. Section 10 waters in North Dakota include the Missouri River (Lake Sakakawea and Lake Oahe), Yellowstone River, James River south of Jamestown, North Dakota, Bois de Sioux River, Red River of the North, and the Upper Des Lacs Lake. Section 404 of the Clean Water Act regulates the discharge of dredge or fill material (temporarily or permanently) in waters of the United States. Waters of the United States may include, but are not limited to, rivers, streams, ditches, coulees, lakes, ponds, and their adjacent wetlands. Fill material includes, but is not limited to, rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mines or other excavation activities and materials used to create any structure or infrastructure in waters of the United States.

For any proposed well where the well line and/or bottom hole is under or crosses under Lake Sakakawea, regardless of depth, we require that project proponent provide a DA permit application (ENG Form 4345) to the Corps. In addition, any upgrade and/or construction of access roads that require the placement of fill material in waters of the United States may require a preconstruction notification (PCN) to the Corps. Finally, utility lines that cross waters of the United States may likewise require a PCN to the Corps.

If any of these projects require a Section 10 and/or Section 404 permit, please complete and submit the enclosed Department of the Army permit application (ENG Form 4345) to the U.S. Army Corps of Engineers, North Dakota Regulatory Office, 1513 South 12th Street, Bismarck, North Dakota 58504. If you are unsure if a permit is required, you may submit an application; include a project location map, description of work, and construction methodology.

If we can be of further assistance or should you have any questions regarding our program, please do not hesitate to contact this office by letter or phone at (701) 255-0015.

Sincerely,

A handwritten signature in black ink that reads "Daniel E. Cimarosti". The signature is written in a cursive style with a large, prominent 'D' at the beginning.

Daniel E. Cimarosti
Regulatory Program Manager
North Dakota

Enclosure
ENG Form 4345

**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.	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 -	
6. APPLICANT'S ADDRESS. Address - City - State - Zip - Country -		9. AGENT'S ADDRESS Address - City - State - Zip - Country -	
7. APPLICANT'S PHONE NOs. W/AREA CODE. a. Residence b. Business c. Fax		10. AGENT'S PHONE NOs. W/AREA 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	

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type	Type	Type
Amount in Cubic Yards	Amount in Cubic Yards	Amount in Cubic Yards

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres
Or
Liner Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

Address –
City – State – Zip –

26. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
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* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



REPLY TO
ATTENTION OF

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

November 3, 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 12, 2009 regarding the proposed drilling and completion of up to eight exploratory oil and gas wells on the Fort Berthold Reservation, North Dakota. The Corps offers the following comments:

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



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



OCT 20 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 Fifteen Proposed Oil and Gas Exploratory Wells on the Fort Berthold Reservation in Dunn, McKenzie, and Mountrail Counties, North Dakota

Dear Ms. Braun:

This letter is written to inform you that the two letters sent on October 12 and one on October 14 were received and the information and maps have been reviewed by Bureau of Reclamation staff.

Oil well sites located in Dunn, McKenzie, and Mountrail Counties could potentially affect Reclamation facilities in the form of the rural water pipelines of the Fort Berthold Rural Water System.

The following list of proposed oil well sites could potentially impact existing or proposed water pipelines:

Dunn County

Eagle's Nest #34-44H, section 34, T148N, R94W
Fox Ridge #03-24H and 10-31H: section 10 T149N, R93W (two wells)

Mountrail County

Elk – USA #11-17H: section 17, T150N, R92W
Galen Fox – USA #24-7H: section 7, T150N, R92W

McKenzie County

Brugh-Bear #2-11H: section 31, T149N, R94W
Danks #17-44H and 20-41H: section 17, T151N, R94W (two wells)

The following proposed oil well sites are not located in the vicinity of any water pipelines:

Dunn County

Baker #20-34H and 29-31H: section 20, T149N, R92W (two wells)

Mountrail County

Everett Fisher – USA #41-6H: section 6, T150N, R93W

McKenzie County

Danks – USA #11-3H: section 3, T151N, R94W

Crow Flies High – USA #31-4H: section 4, T151N, R94W

TAT – USA #24-22H: section 22, T151N, R94W

Deane – USA #34-23H: section 23, T151N, R94W

We are providing maps 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,

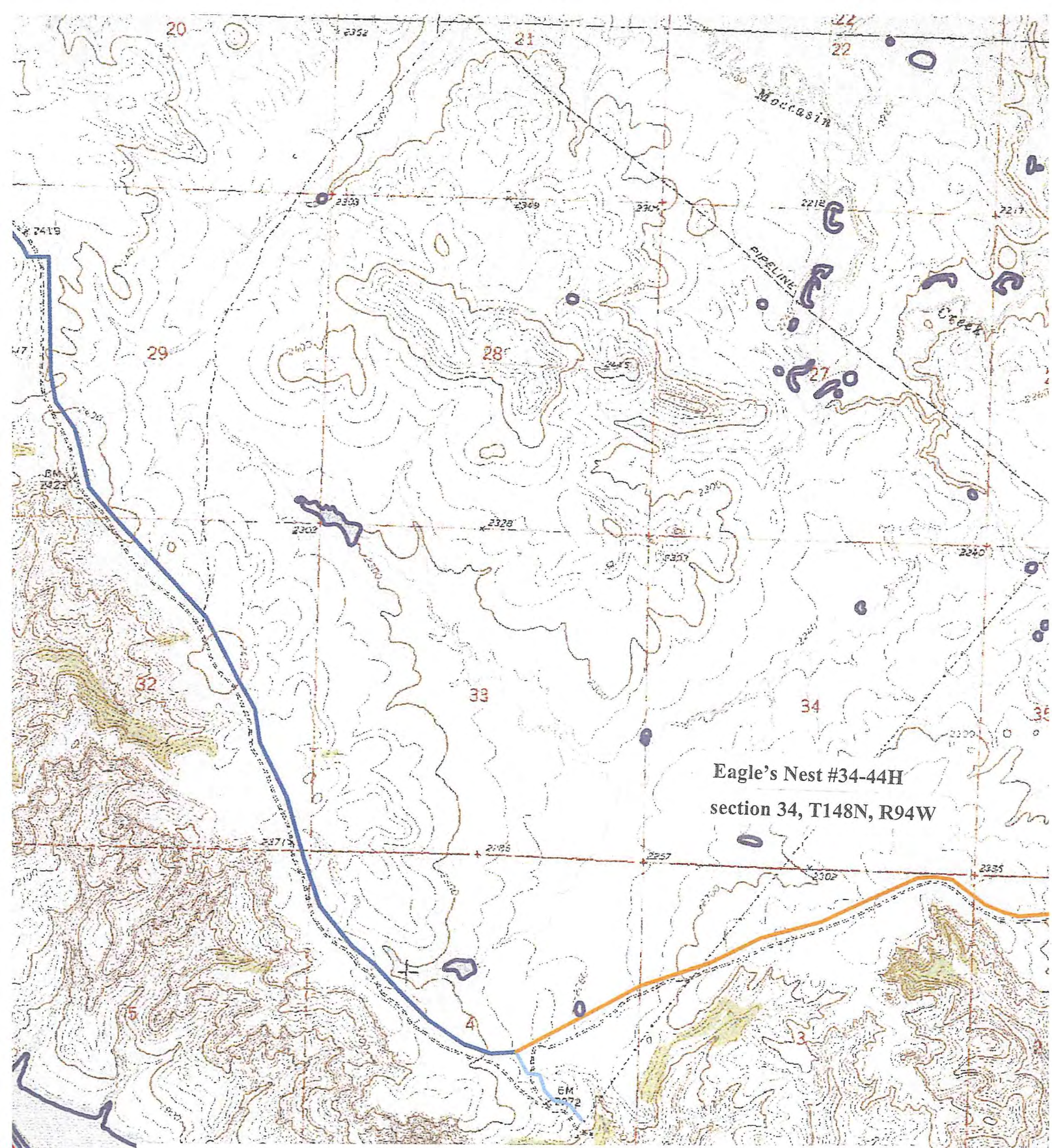


Ronald D. Melhouse
Environmental Specialist

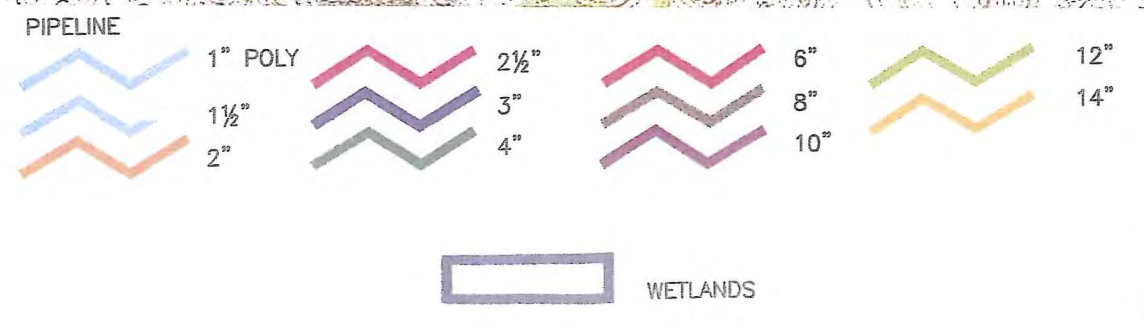
Enclosure

cc: Bureau of Indian Affairs
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)



Eagle's Nest #34-44H
 section 34, T148N, R94W

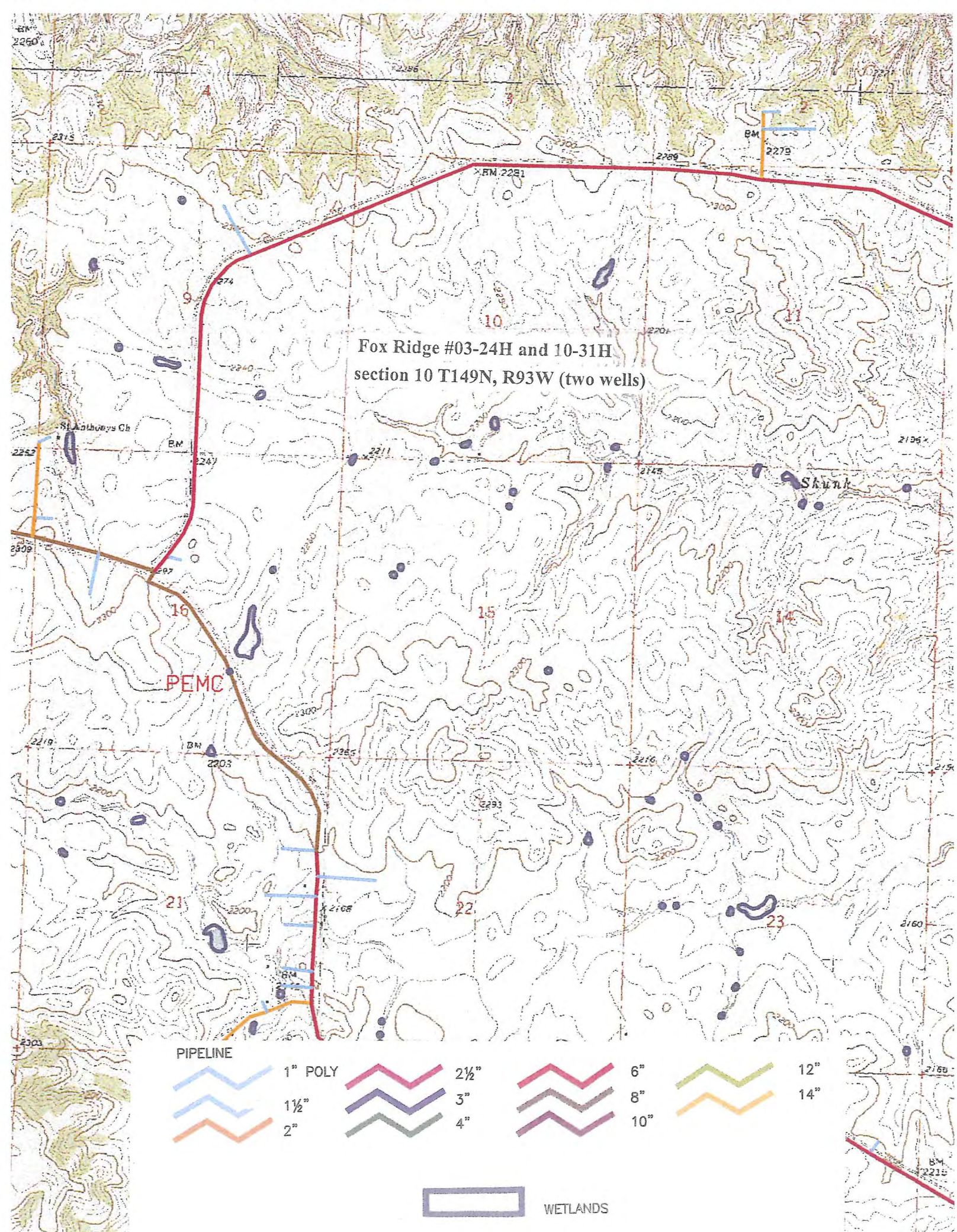


Fox Ridge #03-24H and 10-31H
section 10 T149N, R93W (two wells)

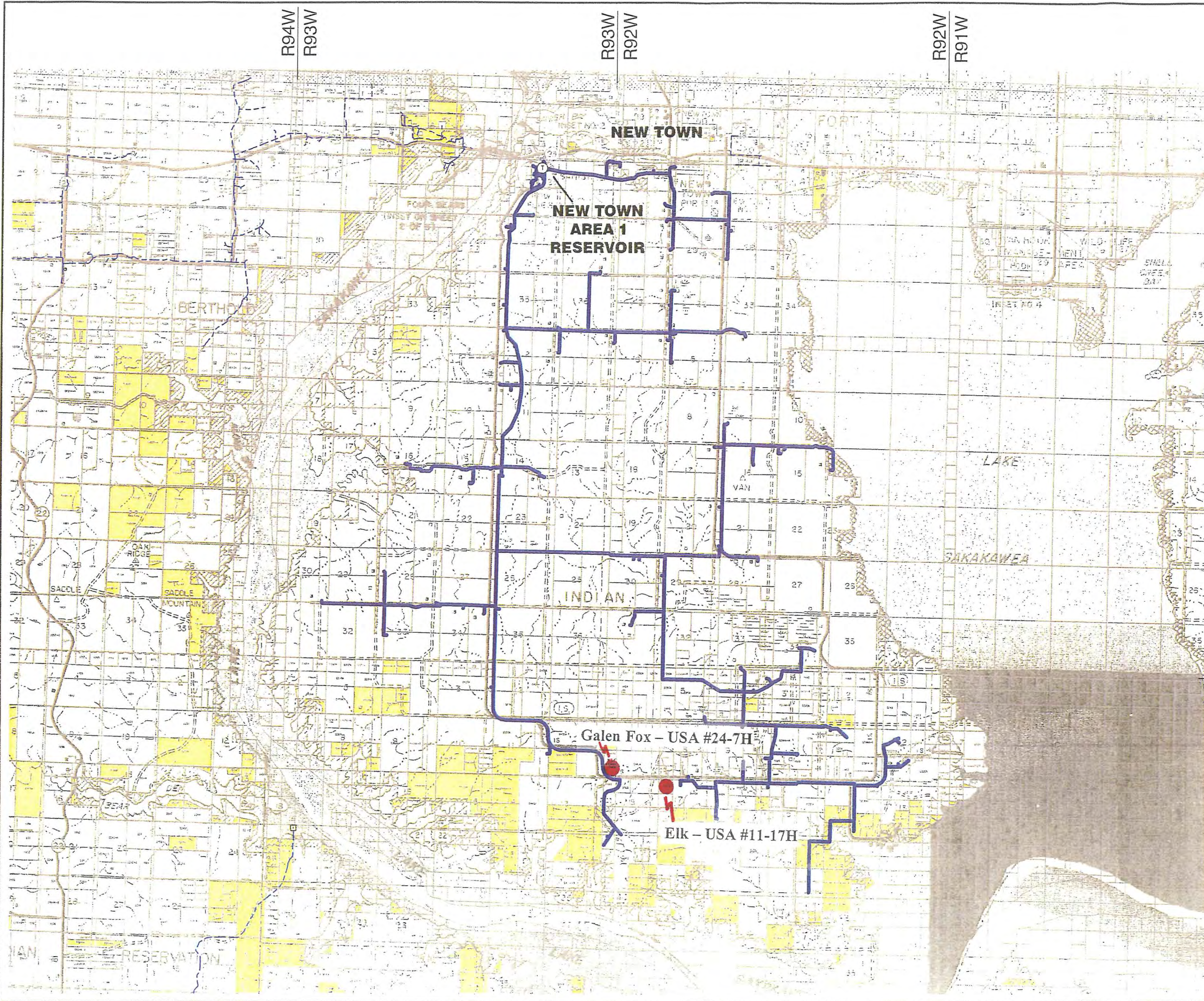
PIPELINE

	1" POLY		2 1/2"		6"		12"
	1 1/2"		3"		8"		14"
	2"		4"		10"		

WETLANDS



**NEW TOWN
AREA 1
PROJECTED
2009
CONSTRUCTION
SEASON**



T152N
T151N

T151N
T150N

- LEGEND**
- EXISTING PIPELINE
 - PROPOSED PIPELINE
 - Ⓣ TANK SITE

BARTLETT & WEST

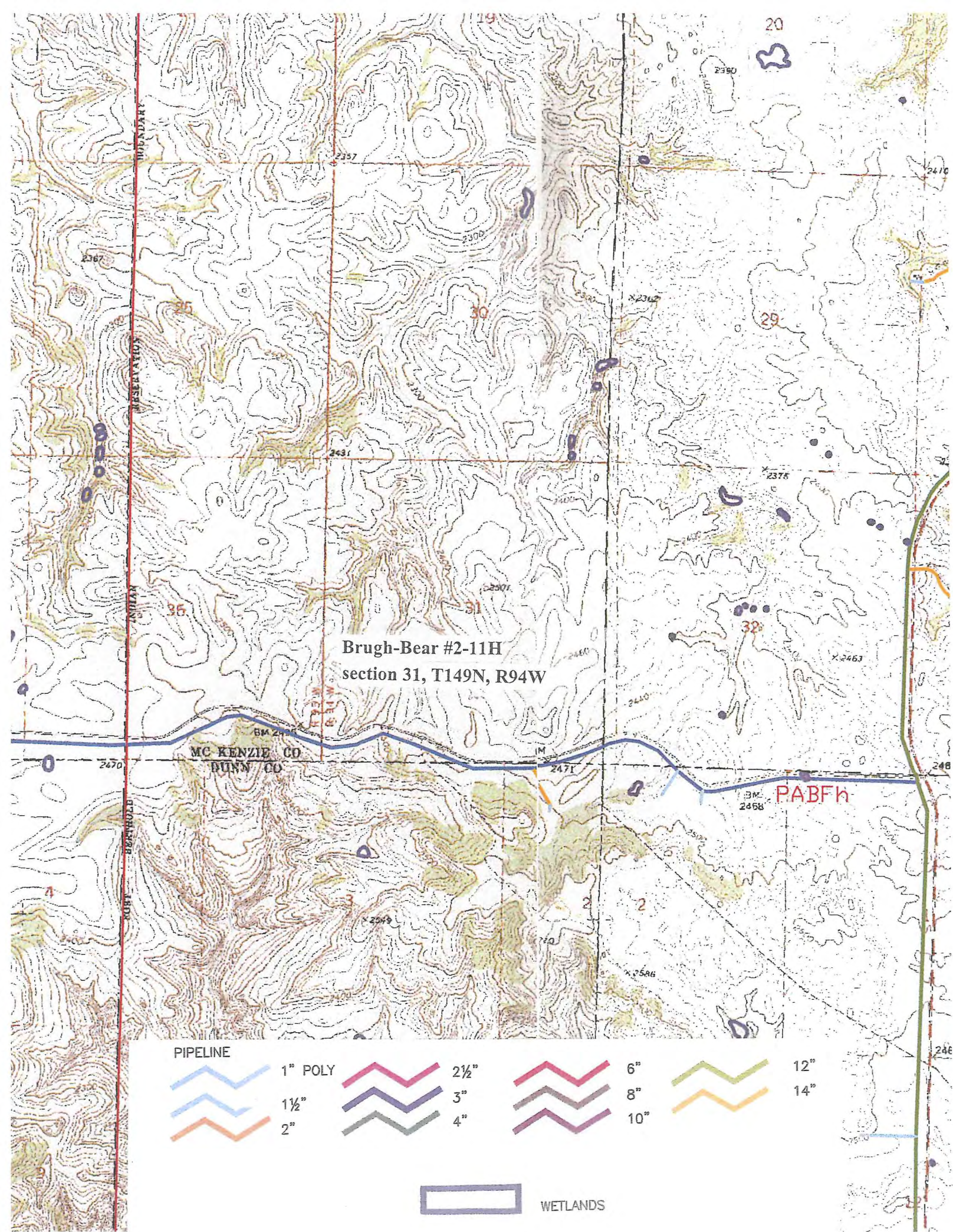
THREE AFFILIATED TRIBES
NEW TOWN AREA 1

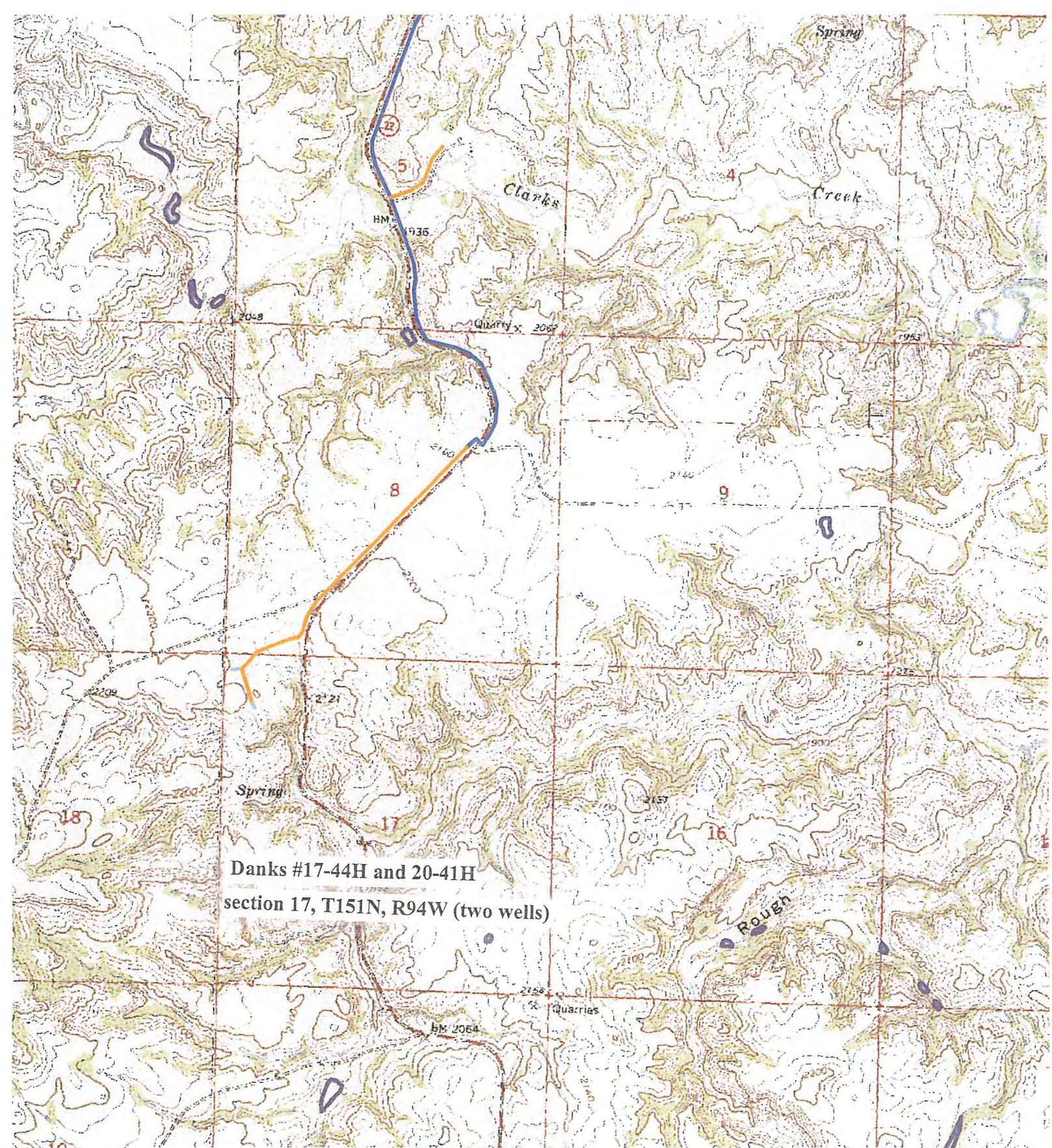


INDEX & LEGEND

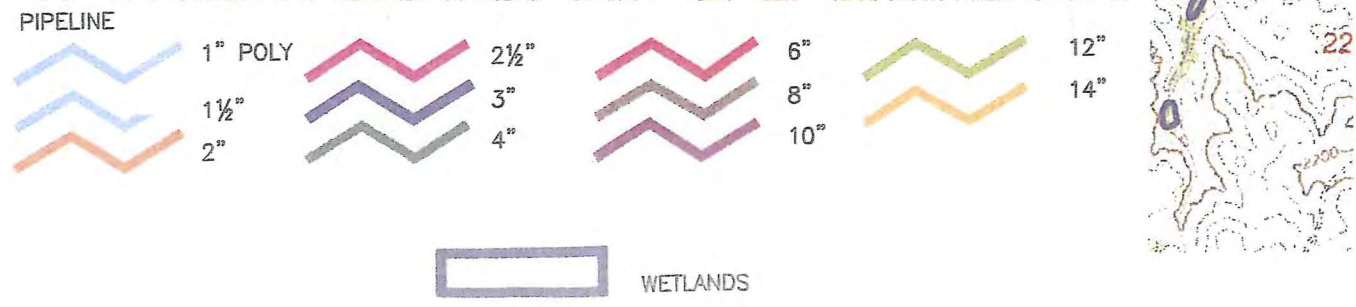
DESIGNED BY:	RAK, BJZ
DRAWN BY:	DDM
APPROVED BY:	KWR
DESIGN PROJ.:	12483.061
CONSTR. PROJ.:	2009-1
SCALE:	AS NOTED
DATE:	2/09
DRAWING NO.:	G04
SHEET NO.:	3 of 29

Last edit on: Mar 03, 2009 by: DDM00439 Drawing name: C:\12000\12483 Three Tribes\ulocosa\12483.000 Misc DWG\12483 Three Tribes mops.dwg Layout name: G04 New Town Overall Plotted on: Mar 11, 2009 - 2:16pm





Danks #17-44H and 20-41H
 section 17, T151N, R94W (two wells)





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
Kadrmas, Lee & Jackson, Inc.
1505 S. 30th Ave
P.O. Box 96
Moorhead, MN 56561-0096

Re: Eight Exploratory Oil and Gas Wells
On The Fort Berthold Reservation

Dear Ms. Braun:

This is in response to your October 14, 2009, letter regarding proposed exploratory oil and gas wells on the Fort Berthold Reservation. Marathon Oil Company has proposed five exploratory oil and gas wells in eight locations on the Fort Berthold Reservation, Dunn and McKenzie Counties, North Dakota.

Specific locations are:

Baker #20-34H and 29-31H: T. 149N, R. 92W, Section 20 (two wells)
Brugh-Bear #2-11H: T. 149N, R. 94W, Section 31 (one well)
Danks #17-44H and 20-41H: T. 151N, R. 94W, Section 17 (two wells)
Eagle's Nest #34-44H: T. 148N, R. 94W, Section 34 (one well)
Fox Ridge #3-24H and #10-31H: T. 149N, R. 93W, Section 10 (two wells)

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 Kadrmas, 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 Environmental Assessment (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 Dunn and McKenzie Counties. We recommend that a buffer of at least 1/2 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 EA include a requirement that if a whooping crane is sighted within 1 mile of a well site or associated facilities while it is under construction, that all work cease within 1 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, 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.

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 1 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/revegdocjuly2003final.pdf>). This document requires that reclaimed areas be managed for a minimum of 10 years, starting in the year when first seeded. Starting in the 6th year, for at least 2 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, SD
(Attn: Marilyn Bercier)
Bureau of Land Management, Dickinson, ND
ND Game and Fish Department, Bismarck, ND

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
DUNN & MCKENZIE COUNTIES, NORTH DAKOTA

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



October 19, 2009

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

Re: Up to Eight Proposed Oil & Gas Exploratory Wells:
Baker #20-34H and 29-31H, Brugh-Bear #2-11H, Danks #17-44H and 20-41H
Eagle's Nest #34-44H, Fox Ridge #3-24H and #10-31H
Forth Berthold Reservation, Dunn & McKenzie Counties, ND

Dear Ms. Braun:

This department has reviewed the information concerning the above-referenced project submitted under date of October 14, 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.

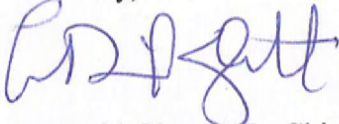
EPA's website or by calling the U.S. EPA - Region 8 at (303) 312-6312. Also, cities or counties may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management 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".

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.



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

October 29, 2009

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

Re: Up to Eight Proposed Oil and Gas Exploratory Wells

Dear Ms. Braun:

The North Dakota Parks and Recreation Department has reviewed the above referenced project proposal to drill up to eight exploratory oil and gas wells located in Section 20, T149N, R92W; Section 31, T149N, R94W; Section 17, T151N, R94W; Section 34, T148N, R94W; and Section 10, T149N, R93W; Dunn and McKenzie Counties.

Our agency scope of authority and expertise covers recreation and biological resources (in particular rare species 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 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, there are no known occurrences within or adjacent to the project area.

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.

Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

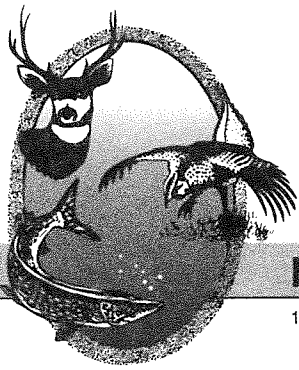
Thank you for the opportunity to comment on this project. Please contact Kathy Duttonhefner (701-328-5370 or kgduttonhefner@nd.gov) of our staff if additional information is needed.

Sincerely,

Jesse Hanson, Coordinator
Planning and Natural Resources Division

R.USNDNHI*2009-302

.....
Play in our backyard!



"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

November 10, 2009

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

Dear Ms. Braun:

RE: Baker #20-35H and 29-31H in Section 20, T149N, R92W
Brugh-Bear #2-11H in Section 31, T149N, R94W
Danks #17-44H and 20-41H in Section 17, T151N, R94W
Eagle's Nest #34-44H in Section 34, T148N, R94W
Fox Ridge #3-24H and 10-31H in Section 10, T149N, R93W

Peak North Dakota, LLC has proposed up to eight exploratory oil and gas wells on the Fort Berthold Reservation in Dunn and McKenzie Counties. 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.

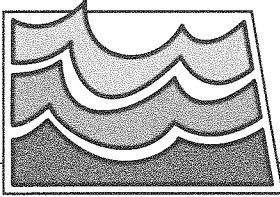
Sincerely,

A handwritten signature in black ink that reads "Steve Dyke". The signature is written in a cursive, flowing style.

(for)

Michael G. McKenna
Chief
Conservation & Communication Division

js



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
Kadrmass, 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 Eight Proposed Oil and Gas Exploratory wells, Fort Berthold Reservation, Dunn and 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

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Jamestown

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Tourism Division*

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prchal
*Director
Parks and Recreation
Department*

Francis Ziegler
*Director
Department of Transportation*

Merlan E. Paaverud, Jr.
Director

*Accredited by the
American Association
of Museums*

October 16, 2009

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

NDSHPO REF. 10-0081 BIA/MHAN/BLM Environmental Assessment for 5 proposed well pads and access roads Peak ND LLC Fort Berthold Reservation Baker 20-34H and 29-31H in portions of [T149N R92W Section 20] Dunn Cty Brugh-Bear 2-11H [T149N R94W Section 31] McKenzie County Danks 17-44H and 20-41H [T151N R94W Section 17] Dunn County Eagle's Nest 34-44H [T148N R94W Section 34] Dunn County Fox Ridge 3-24H and 10-31H [T149N R93W Section 10] Dunn County, all in North Dakota


Dear Ms. Braun,

We received your letter regarding NDSHPO REF. 10-0081 BIA/MHAN/BLM Environmental Assessment for 5 proposed well pads and access roads Peak ND LLC 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



United States Department of the Interior

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

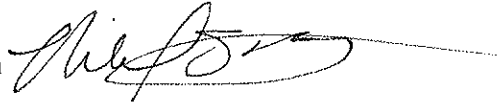


IN REPLY REFER TO:
DESCRM
MC-208

JAN 25 2010

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: 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 eight proposed exploratory drilling wells by Peak 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 Levings, Chairman, Three Affiliated Tribes (with attachment)
Perry "No Tears" Brady, THPO (with attachment)
Roy Swalling, BLM, Dickenson, ND (with attachment)
John Shelman, US Army Corps of Engineers

Finding of No Significant Impact

Peak North Dakota, LLC (Peak)

Environmental Assessment for Drilling of Baker, Brugh-Bear, Danks, Eagle's Nest, and Fox Ridge Exploratory Oil and Gas Wells

Fort Berthold Indian Reservation Dunn and McKenzie Counties, North Dakota

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to drill up to eight exploratory oil and gas wells located atop five well pads as follows:

- Baker #20-34H and 29-31H located in T149N, R92W, Section 20 (two wells)
- Brugh-Bear #2-11H located in T149N, R94W, Section 31 (one well)
- Danks #17-44H and 20-41H located in T151N, R94W Section 17 (two wells)
- Eagle's Nest #34-44H located in T148N, R94W, Section 34 (one well)
- Fox Ridge #3-24H and #10-31H located in T149N, R93W, Section 10 (two wells)

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.



Regional Director

1/25/2010

Date

Notice of Availability and Appeal Rights

Peak: Baker, Brugh-Bear, Danks, Eagle's Nest, and Fox Ridge

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to installation of five oil/gas wells as shown on the attached map. Construction by Peak is expected to begin in the Spring 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 February 25, 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.

