



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E., Suite 400
Aberdeen, South Dakota 57401



IN REPLY REFER TO:

DESCRM
MC-208

FEB 22 2012

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

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

SUBJECT: Environmental Assessment and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, an Environmental Assessment (EA) has been completed and a Finding of No Significant Impact (FONSI) has been issued. The (EA) authorizes land use for the Coyote Necklace 13-25HC oil and gas well pad on the Fort Berthold Indian Reservation.

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 (40 C.F.R. Section 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: Tex Hall, Chairman, Three Affiliated Tribes (with attachment)
Elgin Crows Breast, Tribal Historic Preservation Officer (with attachment)
Derek Enderud, BLM, Bureau of Land Management (with attachment)
Eric Wortman, EPA (with attachment)
Ryan Krapp, Carlson McCain (with attachment)
Jonathon Shelman, Corps of Engineers
Jeff Hunt, Fort Berthold Agency

Finding of No Significant Impact

WPX Energy Williston, LLC

*Environmental Assessment
Coyote Necklace 13-25HC Well Pad*

*Fort Berthold Indian Reservation
McKenzie County, North Dakota*

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to authorize land use for the Coyote Necklace 13-25HC well pad. The proposed Coyote Necklace 13-15HC well site is to have one well bore, drilled vertically then horizontally to access petroleum resources of the Bakken formation under sections 24 and 25, Township 150 North, Range 93 West, 5th Principal Meridian, on Fort Berthold Indian Reservation (FBIR). Developments have been proposed across land held in trust by the United States in McKenzie County, North Dakota. Associated federal actions by BIA include determinations of impacts and effects regarding environmental resources for developments on tribal lands.

The potential of the proposed actions to impact the human environment is analyzed in the attached Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the recently completed addendum to the EA, I have determined that the proposed project will not significantly affect the quality of the human 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. This guidance includes the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.).
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

2-22-2012
Date

ACTING

ENVIRONMENTAL ASSESSMENT

United States Bureau of Indian Affairs

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



**WPX Energy Williston, LLC
Coyote Necklace 13-25HC Well Pad**

Fort Berthold Indian Reservation

February 2012

For information contact:
Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resources
115 4th Avenue SE
Aberdeen, South Dakota 57401
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Environmental Assessment

Coyote Necklace 13-25HC Well Pad

WPX Energy Williston, LLC

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Acronyms

AAQM	Ambient Air Quality Monitoring (site)
AIRFA	American Indian Religious Freedom Act
APD	Application for Permit to Drill
APE	Area of Potential Affect
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
GPRO	Great Plains Regional Office
MHA Nation	Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation
NAGPRA	Native American Graves Protection and Repatriation Act
NDCC	North Dakota Century Code
NDDH	North Dakota Department of Health
NDGFD	North Dakota Game and Fish Department
NDIC	North Dakota Industrial Commission
NDNHI	North Dakota Natural Heritage Inventory
NDSWC	North Dakota State Water Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPAL	Northern Plains Agro-ecosystems Laboratory
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTL	Notice to Lessees
SHPO	State Historic Preservation Officer
TCP	Traditional Cultural Property
TERO	Tribal Employment Rights Office
THPO	Tribal Historic Preservation Officer
TVD	Total Vertical Depth
USACE	United States Army Corps of Engineers
USC	United States Code
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 Purpose and Need for the Proposed Action

WPX Energy Williston, LLC (WPX), formerly Dakota-3 E&P, LLC (D-3), is proposing to construct a well pad to drill a single horizontal oil/gas well on the Fort Berthold Indian Reservation, in order to evaluate and/or develop the commercial potential of the natural resources. The U.S. Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The BIA may also hold title to subsurface mineral rights. Developments are proposed on lands held in trust by the United States in Mountrail County, North Dakota (Figure 1). The proposed well site is the **Coyote Necklace 13-25HC**. The Coyote Necklace 13-25HC proposed well pad will include a single well bore into the Bakken formation. The drilling plan for this site depicted in Figure 2.

The economic development of available resources and associated BIA actions are consistent with the BIA's general mission. Leasing and development of mineral resources offers substantial economic benefits to both the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nations and to individual tribal members. Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 USC 396a, *et seq.*), the Indian Mineral Development Act of 1982 (25 USC 2101, *et seq.*), the Federal Onshore Oil and Gas Royalty Management Act of 1982 (30 USC 1701, *et seq.*), and the Energy Policy Act of 2005 (42 USC 15801, *et seq.*). BIA actions in connection with the proposed project include the approval of leases, easements and rights-of-way, determinations regarding cultural resource effects and recommendations to the Bureau of Land Management (BLM) regarding approval of Applications for Permit to Drill (APDs).

These proposed federal actions require compliance with the *National Environmental Policy Act* of 1969 (NEPA) and regulations of the Council on Environmental Quality (CEQ, 40 CFR 1500-1508). Analysis of the proposal's potential to affect the human environment is expected to both improve and explain federal decision-making. APDs submitted by WPX describe developmental, operations, and reclamation procedures and practices that contribute to the technical basis of this Environmental Assessment (EA). The procedures and practices described in the application are critical elements in both the project proposal and the BIA's decision regarding environmental impacts. This EA will result in either a Finding of No Significant Impact (FONSI) or a decision to prepare an Environmental Impact Statement (EIS).

There are several components to each of the proposed actions. A new access road will be constructed to access the proposed well site, a well pad will be built to accommodate drilling operations and oil, produced water, fresh water, and gas pipelines, and underground electrical and fiber optics lines will be installed. All project components will eventually be abandoned and reclaimed, as specified in this document and the APD and according to any other federal conditions, unless formally transferred with federal approval to either the BIA or the landowner. The well proposed is exploratory, in which results can also support developmental decisions on other leases in the surrounding area, but this EA addresses only the installation and possible long-term operation of the listed well and directly associated infrastructure and facilities.

Additional NEPA analysis, decisions, and federal actions will be required prior to any other developments. Any authorized project will comply with all applicable federal, state, and tribal laws, rules, policies, regulations, and agreements. No construction, drilling, or other ground-disturbing operations will begin until all necessary leases, easements, surveys, clearances, consultations, permissions, determinations, and permits are in place.

Figure 1. Proposed Well Location

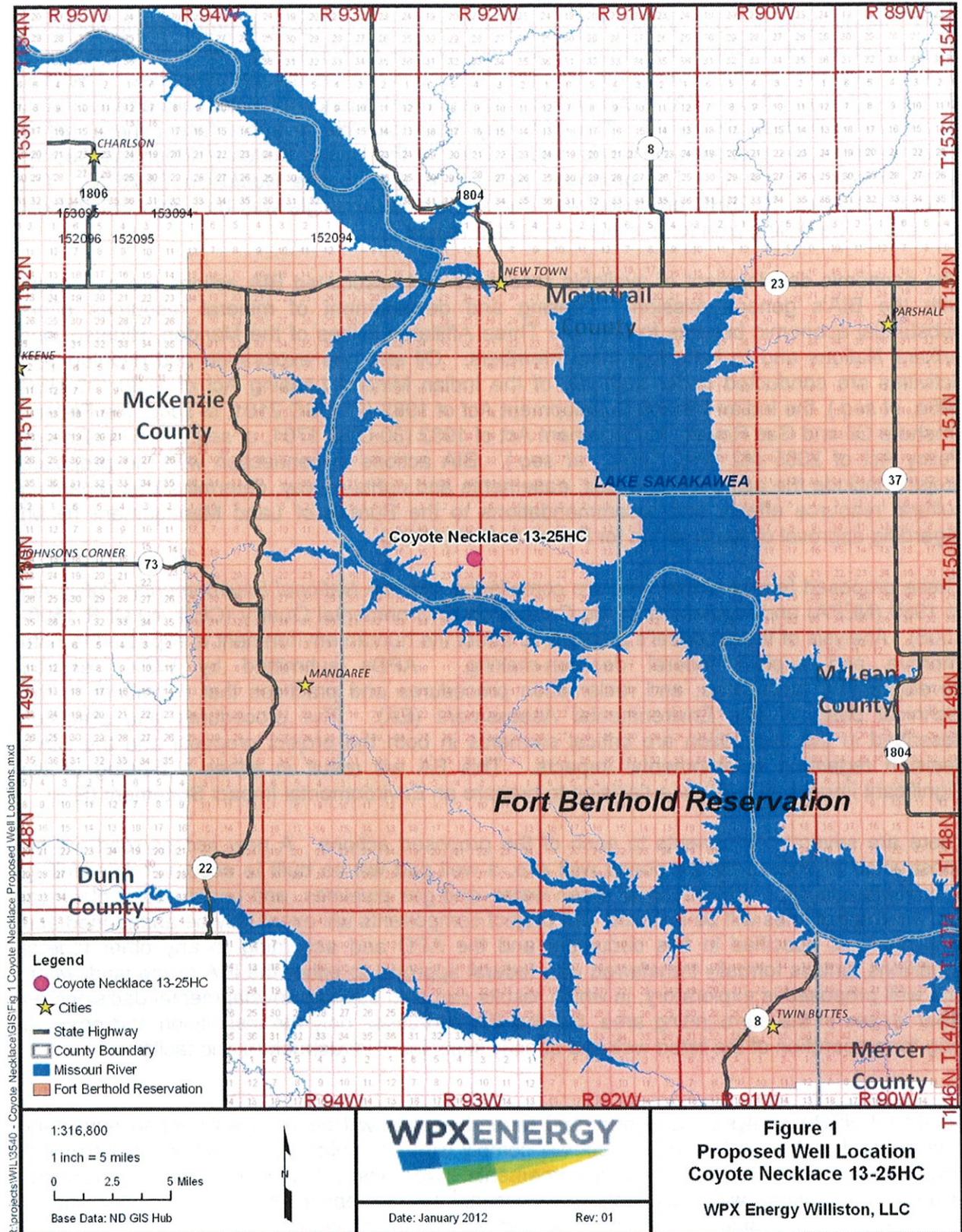


Figure 2. Proposed Drill Plan



2.0 Proposed Action and Alternatives

2.1 Proposed Action

The Proposed Action, outlined within this document, analyzes the potential impacts of the specific proposed project, one exploratory oil/gas well on tribal allotted surface ownership and mineral estate within the boundaries of the Fort Berthold Indian Reservation in Mountrail County, North Dakota. The proposed well will test the commercial potential of the of the Bakken Formation. Site-specific actions will include several components, including construction and installation of:

- access road
- well pad
- oil pipeline
- natural gas pipeline
- produced water pipeline
- fresh water pipeline
- underground electrical line
- underground fiber optic line

Construction activities will follow lease stipulations, practices, and procedures outlined in this document, the APD, guidelines and standards in *Surface Operating Standards for Oil and Gas Explorations and Development* (BLM/US Forest Service, Fourth Edition, also known as the Gold Book), and any conditions added by either BIA or the BLM. All lease operations will be conducted in compliance with applicable laws and regulations, including 43 CFR 3100, *Onshore Oil and Gas Orders 1, 2, 3, 6, and 7*, approved plans of operations and any applicable Notices to Lessees.

The specific well pad location was determined at pre-on-site inspections by the proponent, the BIA Environmental Specialist, the civil surveyor, archeologists, the Tribal Historic Preservation Office (THPO) monitor and the environmental consultant. Those in attendance included: BIA Environmental Specialist, Chris McLaughlin; William H. Smith & Associates Surveyors; SWCA Archeologists; THPO monitors; and Carlson McCain NEPA Biologist, Ryan Krapp.

Resource surveys were conducted on August 26, 2011, at the time of pre-on-site inspections, to determine potential affects to cultural and natural (i.e., biological and physical) resources. The location was inspected in consideration of topography, natural drainage and erosion control, location of topsoil and subsoil stockpiles, flora, fauna, wildlife habitat, historical and cultural resources, and any other surface issues identified. The final location was determined in consideration of identified issues. Avoidance and protective measures, or Best Management Practices (BMP's), were incorporated into the final project design to minimize impacts to evaluated resources, as appropriate. The needed information was gathered during the inspections by the BIA and NEPA biologist to develop site-specific mitigation measures that will be incorporated in the Permit to Construct (see Section 3 Affected Environment).

The preferred action is to complete all administrative actions and approvals necessary to authorize and/or facilitate oil and gas developments at the proposed well location as outlined below.

2.2 The No Action Alternative

Under the No Action Alternative, the proposed projects will not be constructed, drilled, installed, or operated. There will be no project-related ground disturbance, use of hazardous materials, or trucking of product to collection areas. Surface disturbance, deposition of potentially harmful biological material, trucking, and other traffic will not change from present levels. Under the No Action Alternative, the MHA Nation, tribal members, and allottees will not have the opportunity to realize potential financial gains resulting from the discovery of resources at this well location.

2.3 Right-of -Way Construction Procedures

Approximately 1,842 feet of new access road with a 130-foot right-of-way (ROW) will be constructed from BIA 601 graveled roadway to the well pad. An associated pipeline and utility corridor is to parallel the road alignment within that ROW from the Coyote Necklace 13-25HC pad to the southwest corner of the Mandan 13-14H pad site. The pipeline and utilities will then divert to the north along the western edge of the Mandan 13-14H pad fence line. The pipeline and utility corridor will include oil, gas, produced water gathering lines, and fresh water delivery pipelines along with underground electrical lines and fiber optic cables. The 805-foot pipeline and utility corridor route around the Mandan 13-14H pad will be reduced to a 50-foot temporary and permanent ROW. This pipeline and utility corridor route ROW will allow for a direct connection on the north side of the Mandan 13-14H pad to the West Van Hook Gathering System (VHGS) for distribution to a central delivery point.

The natural gas pipeline lateral connection will be constructed of three-inch diameter polyethylene pipe. The oil pipeline is to be constructed of welded steel pipe 6 to 8 inch diameter. Produced water pipelines will consist of four-inch diameter polyethylene pipe. Fresh water delivery pipelines will also be polyethylene pipe, 4 to 6 inches in diameter. Natural gas and oil pipelines will be installed in one trench with produced water and fresh water pipelines to be installed in a second trench. Trenches will be approximately 2.5 feet wide and will be placed 10 to 15 feet apart. All pipelines will be installed at a minimum depth of six feet except as needed at road and stream crossings or as needed for safety considerations. Electrical lines and fiber optic cable will be installed at the same time or at a later date by utilizing the spider-plow method.

The maximum disturbed ROW width of 130 feet for the access road, pipeline and utility corridor and the additional 50-foot pipeline and utility corridor around the Mandan 13-14H pad will result in a potential 6.6 acres of disturbance. Signed agreements will be in place allowing road construction across affected surface allotments and private land surfaces. Any applicable approach permits and/or easements will be obtained prior to any construction activity.

Construction will follow road design standards outlined in the Gold Book. A minimum of eight inches of topsoil will be stripped from the Coyote Necklace 13-25HC access road and utility corridor. The stockpiled topsoil redistributed on the outslope areas of the borrow ditches following road construction. These borrow ditch areas will be reseeded as soon as practical with a seed mixture determined by the BIA. Care will be taken during road construction to avoid disturbing any buried utilities that may exist along existing roads. The access road will be improved with a minimum of four-inches of gravel and the roadway will remain in place for the life of the well. Typical cross-sections are shown in Figure 3.

2.4 Well Pad Construction Procedures

The proposed well pad will consist mainly of an area leveled for the drilling rig and related equipment. A closed-loop drilling system will be utilized and no reserve pits will be excavated. The well pad area will be cleared of vegetation, stripped of topsoil, and graded to the specifications presented in Section 3.6 and in the APD. Topsoil will be stockpiled and stabilized until disturbed areas are reclaimed. Excavated subsoil will be used in well pad construction, with the finished well pads graded to ensure positive water drainage away from the drill site.

The Coyote Necklace 13-25HC well pad working surface will initially be constructed to approximately 3.1 acres in size. Construction activities and soil stockpiles will increase the overall surface disturbance. The total surface use, within fenced area, will be approximately 5.1 acres.

Details of pad construction and reclamation are presented in Section 2.8. All utilities in corridor (electrical and fiber optic) will be underground. Construction of this pad, access road, and installation of pipelines and utilities will result in an approximate 11.7 acres of new disturbance. Interim site reclamation plans after well drilling completions will reduce the pad surface sizes to less than half of the size needed for development. Reclaimed areas will be reseeded according to BIA recommendations and the fenced area (surface use loss) will be reduced.

2.5 Drilling

WPX will submit APDs to the BLM for the proposed well. The BLM North Dakota Field Office will forward the APDs to the BIA's Fort Berthold Agency in New Town, North Dakota, for review and concurrence. The BLM will not approve an APD until BIA completes its NEPA process and recommends APD approval. No construction or drilling will begin until an approved permit has been obtained from the BLM.

Rig transport and on-site assembly will take approximately seven days. A rotary drill rig will require approximately 30 days to reach target depths. A typical drilling rig is shown in Figure 4. For approximately the upper 2,500 feet of the drilled hole, a fresh-water based mud system with non-hazardous additives such as bentonite clay will be used to minimize contaminant concerns. Fresh water will be obtained from a commercial source for drilling, using nearly 8.4 gallons of water per foot of hole drilled.

Figure 3. Typical roadway cross section (Gold Book)

- Construction Steps**
1. Salvage topsoil
 2. Construct road
 3. Redistribute topsoil
 4. Revegetate slopes

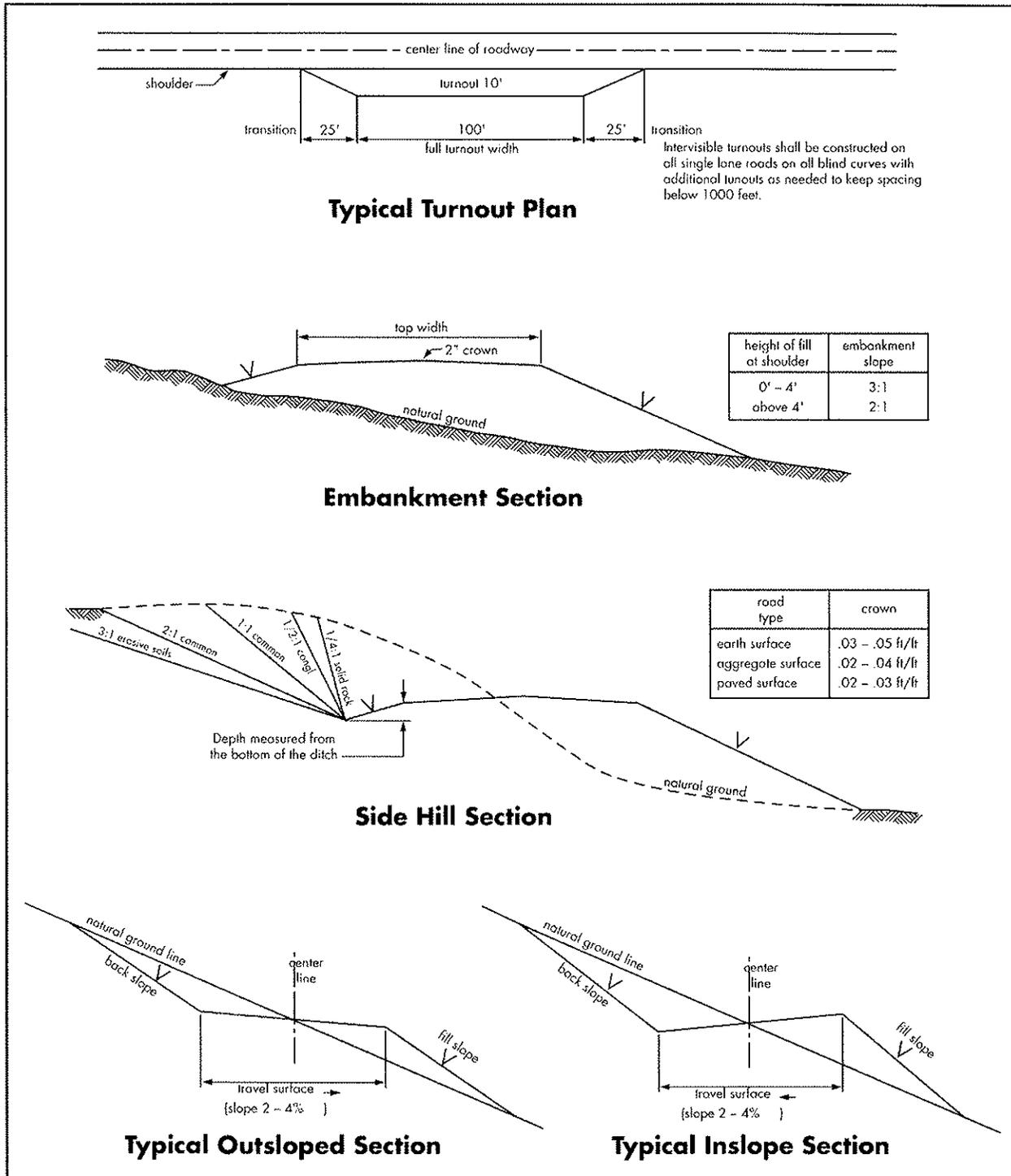




Figure 4. Typical drill rig (Carlson McCain)

Following the setting and cementing of the near-surface casing, an oil-based mud system will be used to drill to the production casing point for the proposed wells. The oil-based mud system consists of a diesel fuel (80-85%) and water (15-20%) mixture. The oil-based drilling fluids reduce the potential for hole sloughing while drilling through shale formations. Approximately 4,725 gallons of water and 18,900 gallons of diesel fuel per well will be used during the vertical drilling for each well. The lateral reach of the well hole will be drilled using on average approximately 33,600 gallons of fresh water.

Utilizing the closed-loop drilling system the cuttings and fluids generated from drilling will be circulated and deposited within reserve tanks on the well pad. Tanks will be emptied as needed at approved off-site disposal facilities in accordance to NDIC rules and regulations.

Prior to use, the entire location will be fenced completely with a cattle guard at the access road entrance to pad, in order to protect both wildlife and livestock. Fencing will be installed in accordance with Gold Book guidelines and maintained through the life of the well.

2.6 Field Camps

Self-contained trailers may house a few key personnel during drilling operations, but any such arrangements will be short-term. No long-term residential camps are proposed. Construction and drilling personnel will commute to the proposed project site, most likely from within or around the Reservation. Human waste will be collected in standard portable chemical toilets or service trailers located on-site, then transported off-site to a state-approved wastewater treatment facility. Other solid waste will be collected in enclosed containers and disposed of at a state-approved facility.

2.7 Casing and Cementing

Surface casing will be set to approximately 2,500 feet and cemented back to the surface during drilling, isolating all near-surface aquifers. The Fox Hills Formation will be encountered at approximately 1,700 feet and the Pierre Formation at approximately 1,800 feet. A production casing cemented from approximately 11,256 feet up to 4,000 feet will isolate potential hydrocarbon zones in the Dakota Formation that occur below 4,500 feet. The production horizontal section will be uncased. Casing and cementing operations will be conducted in full compliance with *Onshore Oil and Gas Order 2* (Title 43 CFR 3160).

2.8 Completion and Evaluation

A work-over unit will be moved onto the well site following the completion of the drilling operations. Approximately 30 days are usually needed to clean out the well bore, pressure test the casing, perforate and fracture the horizontal portion of the hole, and run production tubing for commercial production. A mixture of sand and a carrier (water and/or nitrogen) may be pumped into the well bore under extreme pressure to fracture the target formation. The sand particles will stabilize the fractures, increase the capture zone and maximize the field drainage. The fracture fluids will be recovered by flowing the well back to the surface. Tanks will be used to collect fluids for disposal. Disposal will be conducted in accordance with NDIC rules and regulations.

2.9 Commercial Production

If drilling, testing, and production support commercial production from the proposed location, additional equipment will be installed including a pumping unit at the well head, a vertical heater/treater, storage tanks, and a flare/production pit. An impervious dike (that can contain 110% capacity of the largest holding tank) will be placed around the production tanks and heater/treater. Load-out lines will be located inside the diked area and a screened drip barrel will be installed under the outlet. A metal access staircase will provide access to the diked area, protect the dike, and may provide support to tanker truck hoses. The BIA will choose an inconspicuous paint color for all permanent aboveground production facilities from colors recommended either by the BLM or by the Rocky Mountain Five-State Interagency committee. A typical producing unit is shown in Figure 5.

Oil will be collected in tanks installed on location and trucked to an existing oil terminal until connection to the VHGS is established. Produced water will also be collected and contained in tanks and will be removed for periodic disposal at an approved disposal site until connection to the VHGS is established. Production volumes of oil and water along with pipeline operational date will dictate trucking frequency and duration.

The duration of production operations cannot be reliably predicted, but some oil wells have pumped for more than 100 years. Initial estimation of daily production will be approximately 500 barrels of oil and 100 barrels of water. The production is anticipated to decrease after three months to approximately 200 barrels of oil and 50 barrels of water per day.

Large volumes of natural gas are not expected from these locations. Small volumes will be flared in accordance with Notice to Lessees (NTL) 4A and adopted NDIC regulations, which prohibit unrestricted flaring for more than the initial year of operation (NDCC 28-08-06.4). The natural gas pipeline lateral connection to the VHGS is proposed to be installed near or before well completion. The connections will allow for gas, oil, and produced water to be transported to a central location and trucked, loaded on rail cars or shipped to market via pipelines.

Should future oil/gas exploration and development activities be proposed wholly or partly on trust land, those proposals and associated federal actions would require additional site-specific NEPA analysis and BIA consideration prior to implementation.

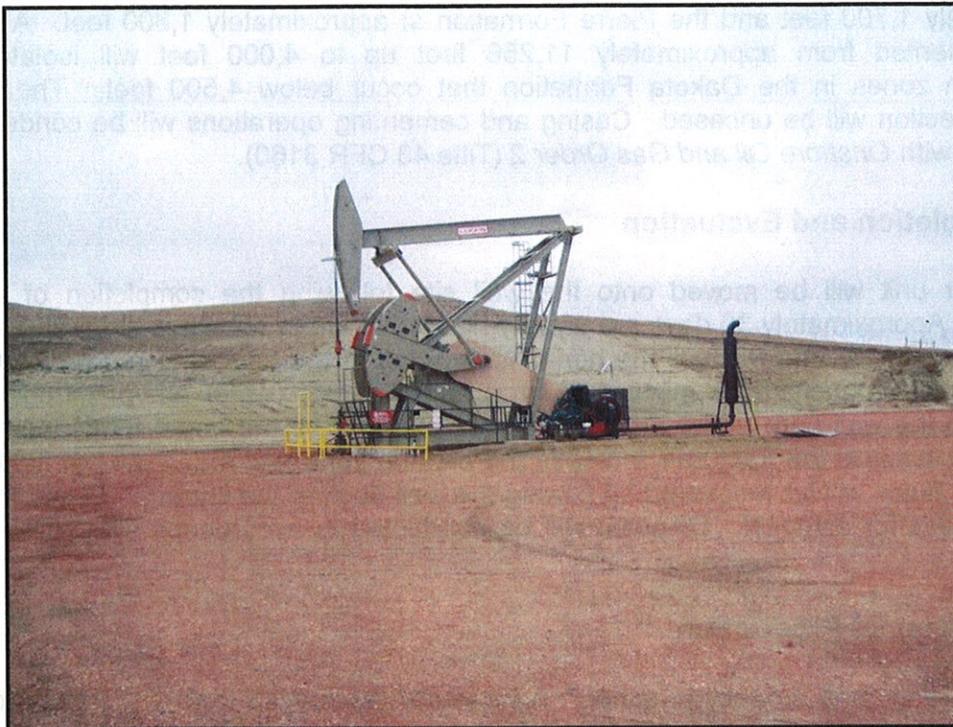


Figure 5. Typical producing unit (Carlson McCain)

2.10 Pipeline Spill Response Plan

WPX has developed an Emergency Spill Contingency Plan (Plan) for the VHGS (WPX, 2011). The spill preventative measures and monitoring protocols, notification procedures, spill detection and on-scene spill mitigation procedures, response activities, contacts, training and drill procedures, and response plan review and update procedures, as referenced in the Plan, apply to the proposed pipelines, so long as WPX remains the operator. A copy of the Plan has been filed with the BIA and WPX has committed to adhering to the procedures and requirements as defined by federal law (Title 49 Code of Federal Regulations [CFR] 194).

2.11 Pipeline Marking Procedures

WPX will adhere to the requirements of 49 CFR 192.707 with regard to the marking of buried pipelines. Specifically, WPX would place pipeline markers within 1,000 feet of one another, at all public road crossings, railroad crossings, creek crossings, fence crossings, and at all points of major direction change.

2.12 Pipeline Quality Control/Quality Assurance Measures

WPX will purchase steel pipe that is rated as API 5L X-42/52 and will inspect all pipe to ensure quality. WPX will ensure that external epoxy coating is applied to a minimum thickness of 14 millimeters. During construction, all welds will be visually inspected for quality and completeness by qualified professionals. Once welds have passed visual inspection, they are subjected to 20 percent Non Destructive Testing. After passing these tests, the weld areas are covered for corrosion protection. After the weld areas have been covered, the external coating

of the pipe is inspected using a jeepmeter to detect holes and cracks. The pipe is lowered into the trench and buried. Prior to being put into service, the steel pipe is air pressure tested to approximately 115% of the maximum design pressure of 720 pounds per square inch gauge (psig). A cathodic protection system will be installed on the steel pipe to protect against corrosion of the pipe.

The natural gas and produced water pipelines will be constructed with high density polyethylene pipe resin 4710. The polyethylene material is not subject to corrosion from reaction with the water so no external or internal coating is required for water service. The produced water pipe is designed to sustain a maximum pressure of 255 psig and will be air pressure tested to approximately 115% of 255 psig prior to being approved for service. The natural gas pipe is designed to sustain a maximum pressure of 255 psig and will be air pressure tested to approximately 115% of 255 psig prior to being approved for service.

Annual survey of the pipeline system will be conducted to assure the pipeline integrity and cathodic protection system is still functioning adequately.

2.13 Site Details

The proposed Coyote Necklace 13-15HC well site is to have one well bore, drilled vertically then horizontally to access petroleum resources of the Bakken formation under sections 24 and 25, T150N, R93W. The well pad working surface will initially be constructed to approximately 280 feet by 430 feet or 3.1 acres in size with the southwest corner chamfered and the northwest corner rounded (Figure 6). Construction activities and soil stockpiles will increase the overall surface disturbance. The total surface use (fenced area) will be approximately 5.1 acres.

Carlson McCain biologists, attended an on-site visit on August 26, 2011, to review the natural resources found in the area. BIA natural resource personnel, cultural resource investigators and tribal representatives were on hand to evaluate effects of the proposed development. At the on-site assessment, efforts were made to reduce the overall pad size to avoid the pad going over edges of plateau. It was determined that the southwest corner needed to be chamfered and the northwest corner rounded to mitigate for any potential impacts to the treed drainages.

A closed-loop drilling system will be utilizing with the cuttings and fluids generated from drilling circulated and deposited within reserve tanks on the well pad. No pits will be dug on the pad site. Tanks will be emptied as needed at approved off-site disposal facilities in accordance to NDIC rules and regulations. A 48-inch (four-foot) containment berm will be constructed on top of the pad site to contain surface runoff during drilling and for the life of the well. Topsoil from the site will be stripped at a minimum depth of eight-inches and stockpiled on the northeast and southeast edges of the pad for reclamation. Best Management Practices (BMP's) implemented include a shallow diversion ditch dug on the outside of the soil piles, a 1.5-foot topsoil berm placed on top of cut side to aid in diverting water around pad, erosion control matting placed on all fill slopes, fiber rolls and breakers placed in drainage areas and soil compaction will be utilized during construction. Reseeding of native species will also take place after interim reclamation.

The access road will begin at BIA 601, near the south edge of the established Mandan 13-14H pad, and proceed to the west and south on the plateau above the treed drainage to the pad site approximately 1,842 feet. An associated pipeline and utility corridor will follow the road alignment (ROW) and will include oil, gas, produced water, and fresh water pipelines along with underground electrical lines and fiber optic cables as described in Section 2.2. Shut off valves will be installed at the pad site for all pipelines. The Coyote Necklace 13-25HC lateral pipelines and utilities will connect with the VHGS north of the Mandan 13-14H.

Figure 6. Coyote Necklace 13-25HC Well Site and ROW

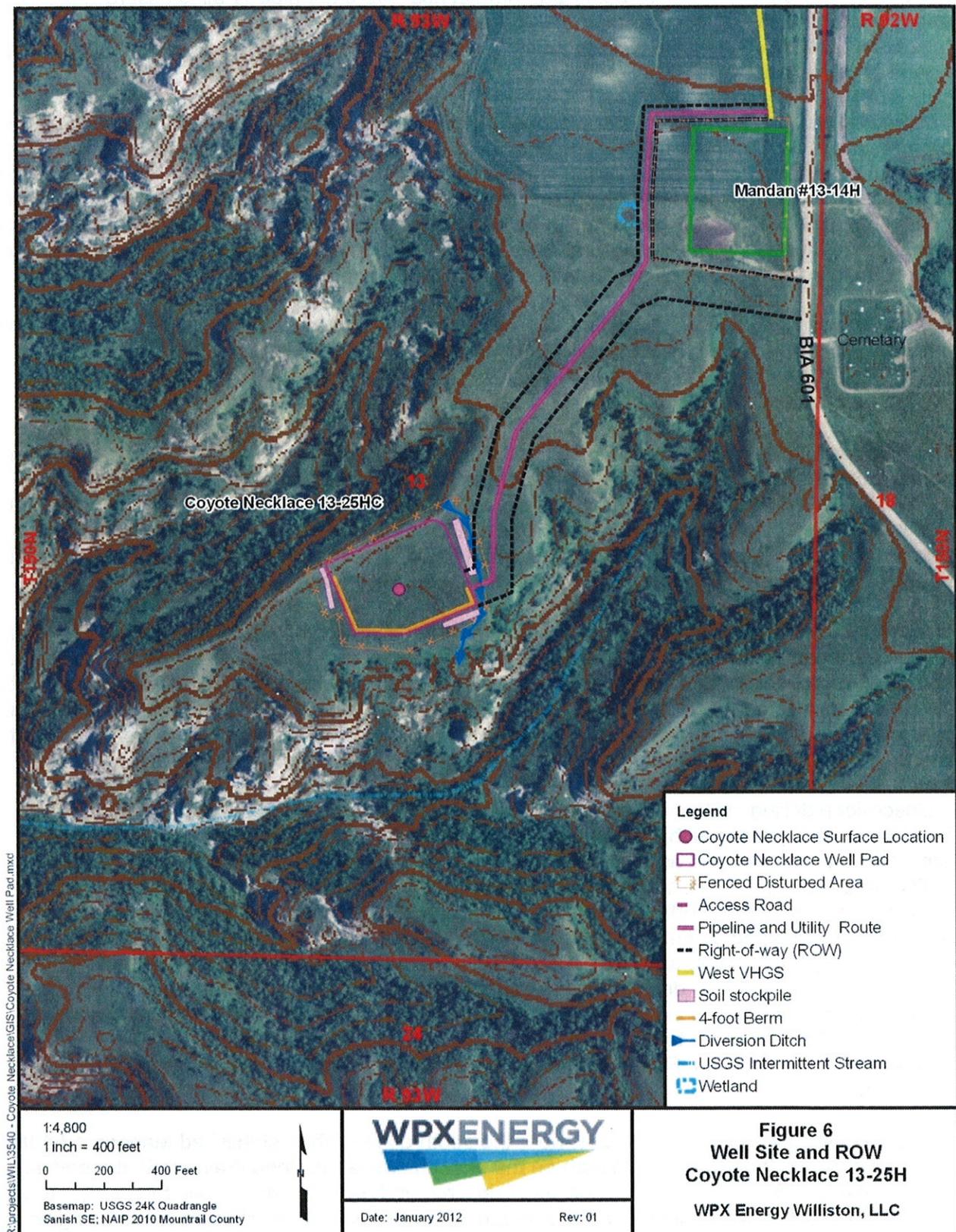




Figure 7. Coyote Necklace 13-25HC General Appearance

The proposed well site is located on a southwest sloping plateau of native prairie pasture. Photograph taken facing south across site from northeast pad corner.

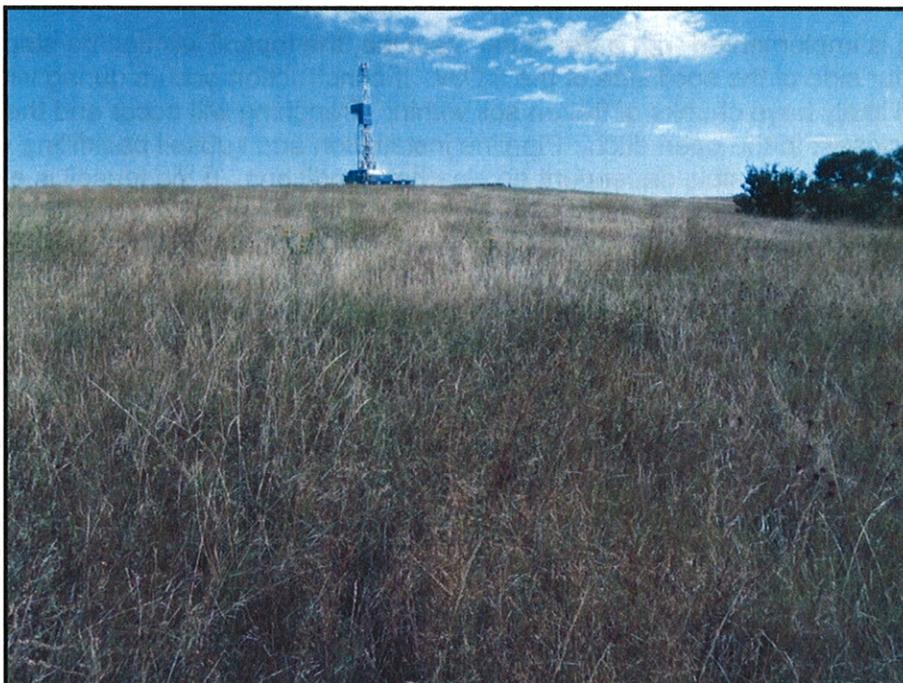


Figure 8. Access Road, Pipeline and Utility ROW

Photograph taken from proposed pad looking northeast back along ROW. The Mandan 13-14H well is being drilled in background.

2.14 Interim Reclamation

A closed-loop (pit-less) drilling system will be utilized on the well site due to the proximity of Lake Sakakawea. Cuttings and fluids will be contained in tanks and will be removed and disposed of offsite at approved waste disposal sites in accordance with NDIC rules and regulations; therefore, no reclamation of reserve pits will be necessary.

If commercial production equipment is installed, best faith efforts will be made to reduce the size of the well pad to approximately half the original size, reclaiming the rest of the original pad surface within six months of original construction disturbance. The working area of each well pad and the running surface of the access road will remain surfaced with scoria or crushed rock. Other interim reclamation measures include reduction of the cut and fill slopes, redistribution of stockpiled topsoil, installation of erosion control measures, and reseeding of native species as recommended by the BIA.

Trenches will be backfilled immediately after pipeline and utility installation and testing, waiting only if soils are overly wet or frozen. Appropriate temporary and long-term measures will be applied to all disturbed areas to minimize and control erosion. Field practices will conform with prescribed Best Management Practices (BMP's) may include:

- 1) installing erosion fabric, mats or logs;
- 2) construction of ditches and/or water bars;
- 3) seeding, planting, mulching and creation of buffer strips; and
- 4) other measures identified at onsite meetings by BIA and during construction to minimize erosion and soil loss.

When ditching is implemented with a trenching machine, the topsoil will first be stripped and stored on the far side of the spoil side of the ROW. If construction occurs during winter months, this topsoil will likely have chunks of frozen soil within. Trenching will occur and the finer subsoil will be stored closest to the open ditch. Pipeline installation and subsoil backfilling will be performed as soon as possible dependent on weather conditions. If the topsoil is excessively frozen the topsoil will not be re-spread and appropriate BMP's along the entirety of the ROW will be implemented to reduce the potential for excessive erosion as a result of spring snow melt. In areas where the spring thaw will likely bring considerable amounts of running water, surface breakers, along with temporary surface matting may be implemented to further minimize erosion potential on slopes. Monitoring and any maintenance of erosion along the ROW will be ongoing and responsibility of WPX.

Re-contouring and reclamation of disturbed areas will be accomplished within six-months after construction is completed, and no later than by the next appropriate planting season (fall or spring). After subsoil is scarified to alleviate compaction, the stockpiled topsoil will be redistributed over the ROW. Topsoil redistribution and final grading will be done in the spring following complete frost thaw and required drying of the right-of-way. Weather conditions will determine final reclamation timing. The ROW in grassland areas will be re-seeded with certified, weed-free seed mixtures established by BIA. Native species will be used to the extent possible and seeding and planting will comply with BIA directions to ensure successful reclamation.

The ROW will be monitored to identify areas of excessive erosion, subsidence, or invasion of noxious weeds. Periodic monitoring will be performed and repeated reclamation efforts will be undertaken in problem areas until BIA has certified the ROW as successfully reclaimed. Successful reclamation is defined by the BIA to include the following observable factors: 1)

reproduction of seeded and re-established species; 2) natural invasion of plants from undisturbed adjacent communities; and 3) control or exclusion of noxious weeds.

The BIA has developed a weed management plan to facilitate the treatment of known and likely noxious/invasive weed species. If seeding is not successful within two growing seasons, BIA may require extra efforts to stabilize the site, such as matting the entire affected area, or using a mix of rapidly growing forbs and annual grasses, followed by reseeding with grasses, forbs, and shrubs with rapidly expanding, deep root systems.

2.15 Final Reclamation

Total reclamation will occur either in the very short term if the proposed well is commercially unproductive, or later upon final abandonment of commercial operations. All disturbed areas will be reclaimed, reflecting the BIA view of oil and gas exploration and production as temporary intrusions on the landscape. All above ground facilities will be removed, well bores will be plugged with cement and dry hole markers will be set. Access roads and work areas will be leveled or backfilled as necessary, scarified, re-contoured and re-seeded. Decommissioning of the pipelines and utilities will also result in mandatory final reclamation of the ROW. Due to economic costs and additional environmental disturbance associated with excavation and removal, pipelines will be purged with water to remove hydrocarbons, and then abandoned in place. Long term monitoring will be required to ensure successful reclamation and implementation of any necessary remedial efforts. Exceptions to these reclamation measures might occur if the BIA approves assignment of an access road either to the BIA roads inventory or to concurring surface allottees. Figure 9 and Figure 10 show a typical built and reclaimed site from the Gold Book.

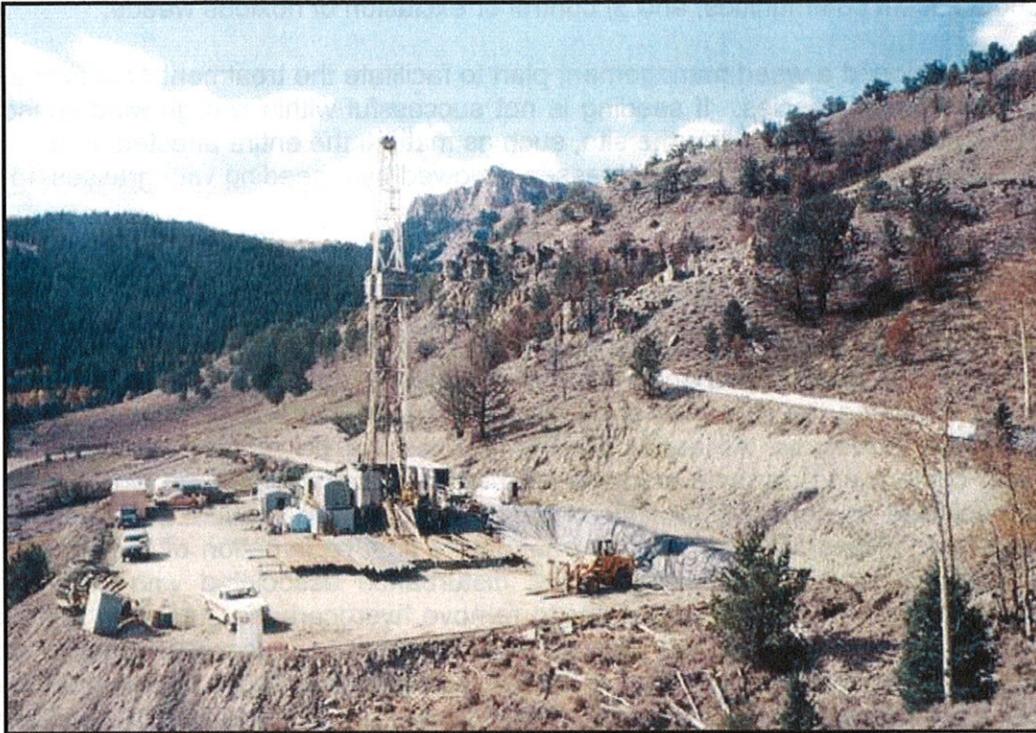


Figure 9. Typical well pad during operation.

The well pad and access road are constructed to the minimum size necessary to safely conduct drilling and completion operations.



Figure 10. Well pad after reclamation.

The well pad and access road have been regraded back to the original contour, the topsoil respread, and the site revegetated.

3.0 The Affected Environment and Potential Impacts

The Fort Berthold Indian Reservation is the home of the Three Affiliated Tribes of the MHA Nation. Located in west-central North Dakota, the Reservation encompasses more than one million acres, of which almost half are held in trust by the United States for either the MHA Nation or individual allottees. The remainder of the land is owned in fee simple title, sometimes by the MHA Nation or tribal members, but usually by non-members. The Reservation occupies portions of six counties, including Dunn, McKenzie, McLean, Mercer, Mountrail, and Ward. In 1945, the Garrison Dam was completed inundating much of the Reservation. The remaining land was divided into three sections by Lake Sakakawea, an impoundment of the Missouri River upstream of the Garrison Dam.

The proposed well and access road is 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 project. Although earlier oil/gas exploration activities within the Reservation were limited and commercially unproductive, recent economic and technological advancement have created feasible access to the Bakken Formation.

The Reservation is within the northern Great Plains ecoregion, which consists of four physiographic units:

- Missouri Coteau Slope north of Lake Sakakawea;
- Missouri River Trench (not flooded);
- Little Missouri River Badlands; and
- Missouri Plateau south and west of Lake Sakakawea

Much of the Reservation is located on the Missouri Coteau Slope and is comprised of a glaciated gently rolling landscape. Elevations of the Reservation range from 1,838 feet at Lake Sakakawea to over 2,600 feet on Phaelan's Butte near Mandaree. Annual precipitation averages between 15 to 17 inches. Mean temperatures fluctuate between -3° and 21°F in January and between 55° to 83° in July, with 95 to 130 frost-free days each year (Bryce et al. 1998; High Plains Regional Climate Center 2008).

The proposed well site and spacing unit are in a rural area consisting primarily of grassland, shrub land, and cropland that is currently farmed, idle or used to graze livestock. The landscape has been previously disturbed by dirt trails and gravel and paved roadways.

The broad definition of human and natural environment under NEPA leads to the consideration of the following elements:

- Air quality;
- Public health and safety;
- Water resources;
- Wetland/riparian habitat;
- Threatened and endangered species;
- Soils;
- Vegetation and invasive species;
- Cultural resources;
- Socioeconomic conditions; and
- Environmental justice.

Potential impacts to these elements are analyzed for both the No Action Alternative and the Preferred Alternative. Impacts may be beneficial or detrimental, direct or indirect, and short-term or long-term. The EA also analyzes the potential for cumulative impacts and ultimately makes a determination as to the significance of any impacts. In the absence of significant negative consequences, it should be noted that a significant benefit from the project does *not* in itself require preparation of an EIS. After consideration of the no-action alternative, existing conditions and potential impacts from proposed projects are described below.

3.1 Air Quality

The North Dakota Department of Health (NDDH) network of Ambient Air Quality Monitoring (AAQM) stations includes Watford City in McKenzie County, Dunn Center in Dunn County, and Beulah in Mercer County. These stations are located west, south, and southeast of proposed well sites. Criteria pollutants tracked under National Ambient Air Quality Standards (NAAQS) of the *Clean Air Act* include sulfur dioxide (SO₂), particulate matter (PM₁₀), nitrogen dioxide (NO₂), and ozone (O₃). Two other criteria pollutants, lead (Pb) and carbon monoxide (CO), are not monitored by these three stations. Table 1 summarizes federal air quality standards and available air quality data from the three-county study area.

Table 1. Summary of Federal Air Quality Standards and Available Air Quality Data

Pollutant	Averaging Period	NAAQS ($\mu\text{g}/\text{m}^3$)	NAAQS (ppm)	County		
				Dunn	McKenzie	Mercer
SO ₂	24-Hour	365	0.14	0.004 ppm	0.004 ppm	0.011 ppm
	Annual Mean	80	0.3	0.001 ppm	0.001 ppm	0.002 ppm
PM ₁₀	24-Hour	150	--	50 ($\mu\text{g}/\text{m}^3$)	35($\mu\text{g}/\text{m}^3$)	35 ($\mu\text{g}/\text{m}^3$)
	Annual Mean	50	--	--	--	--
PM _{2.5}	24-Hour	35	--	--	--	--
	Weighted Annual Mean	15	--	--	--	--
NO ₂	Annual Mean	100	0.053	0.002 ppm	0.001 ppm	0.003 ppm
CO	1-Hour	40,000	35	--	--	--
	8-Hour	10,000	9	--	--	--
Pb	3-Month	1.5	--	--	--	--
O ₃	1-Hour	240	0.12	0.071 ppm	0.072 ppm	0.076 ppm
	8-Hour	--	0.08	0.061 ppm	0.066 ppm	0.067 ppm

North Dakota was one of nine states in 2006 that met standards for all criteria pollutants. The state also met standards for fine particulates and the eight-hour ozone standards established by the U.S. Environmental Protection Agency (EPA) (NDDH 2007). The three counties addressed in Table 2 are also in full attainment and usually far below established limits (American Lung Association 2006). The Clean Air Act mandates prevention of significant deterioration in designated attainment areas. Class I areas are of national significance and include national parks greater than 6,000 acres in size, national monuments, national seashores, and federal wilderness areas larger than 5,000 acres and designated prior to 1977. There is a Class I air shed at nearby Theodore Roosevelt National Park (TRNP). TRNP covers three units of approximately 110 square miles within the Little Missouri National Grassland between Medora and Watford City. The nearest unit, (TRNP North Unit) and is located 30-40 miles west of the proposed projects. The reservation can be considered a Class II attainment air shed, which affords it a lower level of protection from significant deterioration.

The proposed project is similar to other nearby previously approved and installed projects. Construction, drilling, and tanker traffic will generate temporary, intermittent, and nearly undetectable gaseous emissions of particulates, SO₂, NO₂, CO₂, and volatile organic compounds. Road dust will be controlled as necessary and other best management practices implemented as necessary to limit emissions to the immediate project area (BLM 2005). No detectable or long-term impacts to air quality or visibility are expected within the air sheds of the Reservation, state, or TRNP. No laws, regulations or other requirements have been waived; no monitoring or compensatory measures are required.

3.2 Public Health and Safety

Health and safety concerns include naturally occurring toxic gases, hazardous materials used or generated during installation or production, and hazards posed by heavy truck traffic associated with drilling, completion, and production activities.

Hydrogen sulfide gas (H₂S) is extremely toxic in concentrations above 500 parts per million (ppm), but it has not been found in measurable quantities in the Bakken Formation. Before reaching the Bakken, however, drilling will penetrate the Mission Canyon Formation, which is known to contain varying concentrations of H₂S. Release of H₂S at dangerous concentrations is very unlikely. Contingency plans submitted to BLM comply fully with relevant portions of *Onshore Oil and Gas Order 6* to minimize potential for gas leaks during drilling. Emergency response plans protect both the drilling crew and the general public within one mile of a well. Precautions implemented include automated sampling and alarm systems operating continuously at multiple locations on the well pad.

Satellite imagery was used to identify occupied homes within one and five-miles of the proposed well site (Table 2). Pouch Point cabin site (summer seasonal homes) is within five miles but is not within line of site of the proposed site.

Table 2. Distance and Location of Residences

Well Name	Nearest residence	# Residences within 1 mile	# Residences within 5 miles*
Coyote Necklace 13-25HC	2,750' Southeast	2	25

* does not include 36 seasonal residences

Impacts from construction will be largely temporary. Noise, fugitive dust, and traffic hazards will be present during the construction, drilling, and well completion (approximately 60 days) and then diminish quickly during commercial operation. Approximately 50 trips during several days will be needed to transport the drilling rig and associated equipment to each site. The same amount of traffic will be required to dismantle and transport the drilling rig following the completion of the drilling operations.

Natural gas will initially be flared during production and the produced oil and water will be trucked away from the well site. Tanker truck activity depends directly on production of the well and timing of connection to the VHGS. Initially a successful Bakken well usually produces high rates of both oil and water. Upwards of 500 barrels of oil and 100 barrels of water per day might be expected during the initial months of production. Daily production typically decreases by 50% or more after the initial months. An oil tanker usually hauls 140 barrels and a water tanker holds 110 barrels per load. Four oil tankers and one water tanker may visit each well site per day during the initial months of production. This number will decline as production declines. Established load restrictions for state and BIA roadways will be followed and appropriate haul

permits will be acquired. All traffic must be confined to approved routes and conform to load and speed limits.

The EPA specifies chemical reporting under Title III of the *Superfund Amendments and Reauthorization Act* (SARA) of 1986, as amended. No materials used or generated by this project for production, use, storage, transport, or disposal are on either the SARA list or on EPA's list of extremely hazardous substances in 40 CFR 355. Project design and operational precautions mitigate against impacts from toxic gases, hazardous materials, and traffic. All operations, including flaring, will conform to instructions from BIA fire management staff. Impacts from the proposed projects are considered minimal, unlikely or insignificant. No laws regulations, or requirements have been waived; no compensatory mitigation measures are required.

3.3 Water Resources

3.3.1 Surface Water

The proposed sites are located on a glaciated upland in the Missouri River Regional Water Basin (Figure 11). Surface water runoff generally starts as sheet-flow until collected by ephemeral drainages leading to Lake Sakakawea. The ephemeral drainages, in turn, combine to form intermittent and/or perennial streams that flow into Lake Sakakawea. Lake Sakakawea is part of the Missouri River sub-regional watershed and is the receiving water for runoff from the land area surrounding the well site.

3.3.1.1 Coyote Necklace 13-25HC

The Coyote Necklace 13-25HC is located within the Garrison Dam Sub-Basin, the Independence Point Watershed and the Shell Creek Church Sub-Watershed. WPX will construct and maintain a 48-inch containment berm on the well pad during drilling operations and after interim reclamation. Surface water runoff will be diverted around the pad by topsoil placement and diversion ditch establishment around pad.

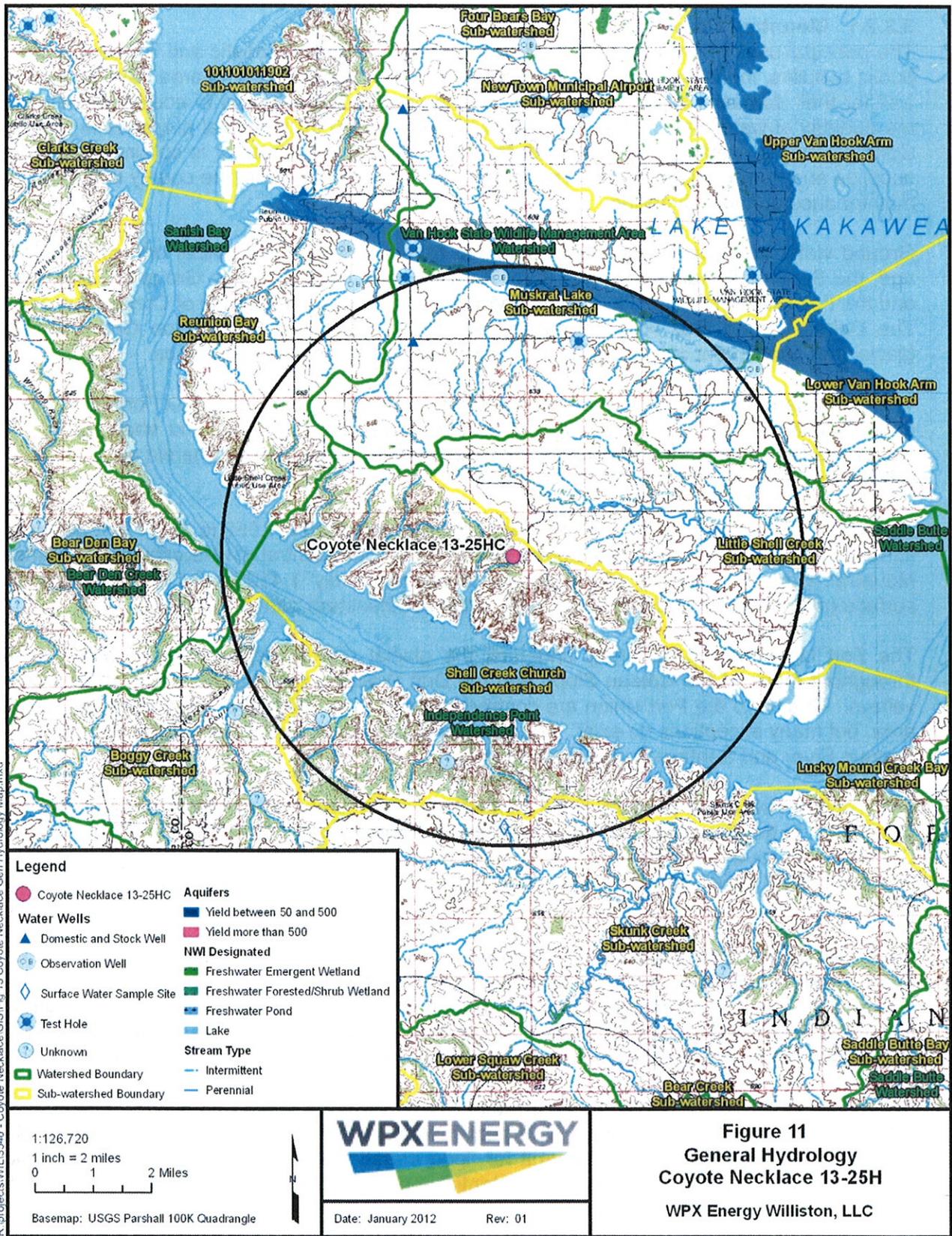
Table 3. Distance from Coyote Necklace 13-25HC to receiving water

Source - Point	Distance
	(feet)
Pad to USGS intermittent stream/ treed drainage	100
USGS intermittent stream to Lake Sakakawea ¹	3,200

¹Lake level based on Mountrail County Aerial Photograph (NAIP 2010) and high water mark

National Wetland Inventory (NWI) maps prepared and maintained by the USFWS have identified a wetland west of the Mandan 13-14H well site. The wetland position was evaluated and the 50-foot pipeline and utility ROW corridor has been routed between the pad site and the wetland. BMP's will be utilized to prevent disturbance of this isolated wetland.

Figure 11. General Hydrology



R:\projects\WIL13540 - Coyote Necklake\GIS\Fig 13 Coyote Necklake Gen Hydrology Map.mxd

3.3.2 Groundwater

3.3.2.1 Mountrail County

The principal uses of ground water in Mountrail County are for domestic and livestock supplies, public supplies, industrial supplies, and irrigation. Most farm units in the area have at least one well for their domestic and livestock uses, but no records are available to accurately determine the quantity of water used. Practically all of the water used for industrial purposes in Mountrail County either is used in connection with the production of petroleum or is obtained from public supplies and no records are kept. The largest use of ground water in the county is for pressure maintenance during well drilling.

Ground water in Mountrail County is obtained from aquifers in the glacial drift of Quaternary age, the Sentinel Butte and Tongue River Formations in the Fort Union Group of Tertiary age, and the Fox Hills Formation, Hell Creek Formation, and the Dakota Group of Cretaceous age. The Dakota Group, Fox Hills Formation, Hell Creek Formation, Fort Union Group, and the glacial drift contain the only aquifers that are presently of economic importance.

The upper part of the Fox Hills Formation and the lower part of the Hell Creek Formation contain about 100 feet of sandstone in an inter-bedded sandstone, siltstone, and shale zone. The sandstone beds in the zone apparently are hydrologically connected and herein are referred to as the Fox Hills-Hell Creek aquifer.

The top of the Fox Hills-Hell Creek aquifer generally ranges from 1,550 to 2,100 feet below land surface (altitude about 300 feet above msl) in the south-central and southwestern parts of Mountrail County. The top of the aquifer is approximately 1,450 to 2,100 feet below land surface (altitude about 550 feet above msl) in the southeastern part of the county.

The Fort Union Group generally underlies the glacial drift at depths of less than 100 feet throughout much of the Coteau Slope and the Drift Prairie, except in the larger ancient buried valleys. Depths to the Fort Union are commonly more than 100 feet in the Coteau du Missouri area, but many exceptions do exist. The group is subdivided into four formations in some Tongue River and Sentinel Butte Formations

The Tongue River and Sentinel Butte Formations either crop out or immediately underlie the glacial drift in the report area. These units are distinguishable only on the surface in Mountrail County. Individual sand beds in the Tongue River-Sentinel Butte Formations vary greatly in thickness. Most sand beds are less than 10 feet thick, but thicknesses exceeding 100 feet, does occur.

3.3.3 Water Wells and Water Use Permits

There is one domestic or stock water supply well within five miles of the proposed well site. well (Figure 11). It is located approximately 3.7 miles northeast of the Coyote Necklace in section 35 of T151N, R93W and is drilled into the Tounge River Aquifer (Table 4). There has also been one observation and one water test well drilled within five-miles of the proposed location.

One active water permit is also located within five miles of the project area. It is located in the SW¼ Section 34, T151N, R92W. The permit was issued on October 27, 1970, to J. & S. Pennington. This is a perfected permit for flood irrigation from the surface water of Muskrat Lake. Muskrat Lake will have little to no potential impact due to drilling this well.

Table 4. Water Wells Within 5 miles

¹ ND State Water Commission 2009

LOCATION	Distance To Nearest Proposed Well (miles)	Permit Type	Aquifer	Well Depth (feet)	Date
NW NW 35 T151N R93W	3.7	Domestic Well	Toungue River	298	1/3/1988
NE NE 27 T151N R93W	4.7	Observation Well	Unknown	145	6/3/1992

Water quality will be protected by drilling with fresh water to a point below the base of the Fox Hills Formation, implementing proper hazardous materials management, and using appropriate casing and cementing. Drilling will proceed in compliance with *Onshore Oil and Gas Order 2, Drilling Operations* (43 CFR 3160). If cement circulation is lost, a cement bound log will be required by BLM to ascertain if remedial cementing is required to provide an adequate seal between casing and strata. Surface casing will be cemented in place to a depth of approximately 2,500 feet, isolating aquifers in the Fox Hills Formation and extending a minimum of 50 feet into the underlying Pierre shale. Intermediate casing will extend from the surface and be cemented as needed to isolate potentially productive water and hydrocarbon-bearing zones.

Seepage and infiltration of hazardous materials from the sites are considered unlikely due to the use of closed-loop drilling system (pit-less). There will be no other pits or lagoons. Impacts to shallow aquifers from surface activities and spills will also be avoided or managed by implementation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan.

Produced water will be captured in tanks on-site and periodically trucked to an approved disposal site until connection to the VHGS. The BIA and the BLM will monitor all operations and review site records at their discretion. Evidence of groundwater contamination related to the project will result in a stop work order until all appropriate measures were identified and implemented. These and other construction and reclamation techniques included in the APD will minimize potential for impacts to both surface water and groundwater. No significant impacts to surface water or groundwater are expected because of the proposed action. No applicable laws or regulations will be waived; no compensatory mitigation measures are required to protect surface water or groundwater.

3.4 Wildlife and Habitat

3.4.1 Species of Concern

Assessments for Federally listed threatened and endangered species and candidate species were conducted by evaluating historic and present occurrences by determining if potential habitat exists within the project area. Scoping letters were sent to the US Fish and Wildlife Service (USFWS), North Dakota Game and Fish Department (NDGFD), the BLM and the North Dakota Parks and Recreation Department - Natural Heritage Inventory (NDPRD) concerning wildlife and habitat impact concerns (Appendix A). Consultation and comments received are presented in Appendix B. All concerns have been considered and mitigation measures have been incorporated throughout this EA.

Currently, seven species and one Designated Critical Habitat is listed as potential in Mountrail County, North Dakota (Table 5).

Table 5. Mountrail County Threatened, Endangered, and Candidate species and Designated Critical Habitat

Species	Status	County
		Mountrail
Interior Least Tern	Endangered	X
Whooping Crane	Endangered	X
Black-footed Ferret	Endangered	
Pallid Sturgeon	Endangered	X
Gray Wolf	Endangered	X
Piping Plover	Threatened	X
W Prairie Fringed Orchid	Threatened	
Sprague's Pipit	Candidate	X
Dakota Skipper	Candidate	X
Designated Critical Habitat - Piping Plover		X

¹ USFWS (updated October, 2011)

Determinations concerning direct and cumulative effects of the proposed activities on each species and their habitat and is presented below. USFWS issued a letter to the species effects determinations made and is located in Appendix B.

3.4.2 Species Assessments

Assessments for Federally listed threatened, endangered species were conducted by evaluating historic and present occurrences and by determining if potential habitat exists within the project area. A determination was made concerning direct and cumulative effects of the proposed activities on each species and habitat. Determinations made for federally listed species are:

- No effect
- May affect, but is not likely to adversely affect
- May affect, and is likely to adversely affect
- Is likely to jeopardize a proposed species or adversely modify critical habitat
- Is not likely to jeopardize a proposed species or adversely modify critical habitat

3.4.2.1 Gray Wolf

Gray wolves, an Endangered Species in North Dakota, were historically found throughout much of North America including the Upper Great Plains. Human activities have restricted their present range to the northern forests of Minnesota, Wisconsin, and Michigan and the Northern Rocky Mountains of Idaho, Montana, and Wyoming. They now only occur as occasional visitors in North Dakota. The most suitable habitat for the gray wolf is found around the Turtle Mountains region where documented and unconfirmed reports of gray wolves in North Dakota have occurred (Grondahl and Martin, no date). Due to the transient nature and no recent recorded sightings in the area the proposed project **may affect, is not likely to adversely affect** this species.

3.4.2.2 Interior Least Tern

The interior least tern nests on midstream sandbars along the Yellowstone and Missouri River systems. Interior least terns construct bowl-shaped depression nests on sparsely vegetated sandbars and sandy beaches. Their nesting period occurs between mid-May through mid-August.

The proposed well site is located approximately 3,300 feet from and not within line-of-sight of the Missouri River system shoreline, there could be indirect effects to the species as they have the ability to forage up to 7.5 miles from the lake to wetlands during the nesting season. No individuals were observed in the area during the onsite visit.

If the site will be constructed during the nesting season (April 15 - September 1) surveys for migratory birds, including terns, will be conducted five days prior to construction. If birds or nests are discovered all construction will be stopped and the BIA and USFWS will be consulted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of raptor or migratory bird nesting sites. The proposed project **may affect, is not likely to adversely affect** this species.

3.4.2.3 Pallid Sturgeon

Pallid sturgeon are found in the Mississippi, Missouri, and Yellowstone River systems and are adapted for living close to the bottom of large, shallow rivers with sand and gravel bars. Pallid sturgeon populations in North Dakota have decreased since the 1960's (Grondahl and Martin no date). The proposed well site is approximately 3,300 feet from the Missouri River system (Lake Sakakawea). All BMP's will be implemented, including a 48-inch containment berm surrounding the proposed well pad and a closed-loop (pit-less) drilling system. As such, the project should have **no effect** on this species.

3.4.2.4 Whooping Crane

The primary nesting area for the whooping crane is in Canada's Wood Buffalo National Park. Aransas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate primarily along the Central Flyway. During the migration, cranes make numerous stops, roosting in large shallow marshes, and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss (Texas Parks and Wildlife 2008).

The proposed well site is located within the Central Flyway. Approximately 75% of the whooping crane sightings in North Dakota occur within a 90-mile corridor that includes the proposed well location. Because collisions with power lines are the primary cause for fledgling mortality, it is BIA directive that any utility lines be constructed underground. Land use in the area is native grasslands and adjacent agricultural fields. The pad and access road is placed in a location that may have some potential of impacting whooping crane stop-over habitat. No individual whooping cranes were observed in the area during the on-site visits.

Construction activities may cause migratory cranes to divert from the area but are not likely to result in fatalities. If a crane is sighted within one mile of the project area, construction activities in the immediate area will cease and will be immediately reported to the USFWS, the NDGFD, and the BIA. In coordination with the USFWS and the BIA construction will resume once the bird(s) have left the area. Following these guidelines, it is reasonable to expect that the proposed activities **may affect, is not likely to adversely affect** whooping cranes.

3.4.2.5 Piping Plover and Critical Habitat

Piping plovers are found along the Missouri and Yellowstone River systems on gravel shorelines and sandbars and also on large alkaline wetlands. Nesting sites have been documented on the shorelines of Lake Sakakawea. In addition, critical habitat has been designated along Lake Sakakawea. NDPRD records do not indicate any historic piping plover sightings or critical habitat within two miles of the project site.

No individuals were observed in the area during the onsite visit on August 26, 2011. Although the proposed well site is located approximately 3,300 feet from and not within line-of-sight of the Missouri River system shoreline, there could be indirect effects to the species.

If the site will be constructed during the nesting season (April 15 - September 1) surveys for migratory birds, including piping plovers, will be conducted five-days prior to construction. If birds or nests are discovered all construction will be stopped in the immediate area and the BIA and USFWS will be consulted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of raptor or migratory bird nesting sites. The proposed project **may affect, is not likely to adversely affect** this species.

3.4.2.6 Sprague's Pipit

The Sprague's pipit is a ground nesting bird that breeds and winters on open grasslands. It feeds mostly on insects and spiders and some seeds. The Sprague's pipit is closely tied with native prairie habitat and breeds in the north-central United States in Minnesota, Montana, North Dakota and South Dakota as well as south-central Canada. During the breeding season, Sprague's pipits prefer large patches of native grassland with a minimum size requirement thought to be approximately 145 ha (358.3 ac). The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs. Preferred grass height is estimated to be between 10 and 30 cm. They may avoid roads, trails, and habitat edges.

The proposed Coyote Necklace 13-25HC well site had moderate-high vegetative height (30-50 cm) at time of survey. Heavily treed drainages flank the narrow native plateau. Based upon these factors the proposed project **may affect, is not likely to adversely affect** this species.

3.4.2.7 Dakota Skipper

Dakota skippers are 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; and 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needle grass, pale purple coneflower and upright coneflowers and blanket flower. Dakota skipper populations have declined historically due to widespread conversion of native prairie.

The Coyote Necklace pad site and access road does contain a few of the potential vegetative species with moderate-high residual vegetative cover. Relatively small amounts of habitat critical to the life stages of the Dakota skipper may be altered by the proposed project development. Based upon these factors the proposed project will have **may affect, is not likely to adversely affect** on this species.

3.4.3 Wildlife (General)

Proposed oil and gas development in the area may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. These impacts are regulated in part through the *Migratory Bird Treaty Act* (916 USC 703-711) and the Bald and Golden Eagle Protection Act (BGEPA).

A ground survey for cliff, tree, and ground raptor nests was also conducted within ½-mile of the proposed projects during the on-site review August 26, 2011. The project area was also surveyed for migratory bird species. The timing of the surveys was not within the typical nesting window and therefore may not be an accurate account of nesting species in the project area. No nests or birds were observed using the area during the on-site review. Ground and/or aerial surveys for migratory birds nests (including raptor) will again be conducted within five-days of construction if portions of the projects are to be constructed during the spring nesting season (February 1 - July 15).

If a migratory bird nest is located, the location will be recorded, monitored and documentation will be maintained. The USFWS and BIA will be consulted to determine mitigation measures to avoid disturbance of the nest. Measures may include applying an appropriate avoidance buffer to the nest or delaying construction in that area until the nest is fledged.

Table 6 identifies other wildlife that was observed and/or may generally be expected around the proposed site. These were confirmed by direct observation or by various signs of wildlife activity. Direct wildlife observations are affected by time of day, time of year, etc.

Table 6. Wildlife (General)

Location	Observed	Suitable Habitat
Coyote Necklace 13-25HC	Pocket gophers mounds, deer beds	Mule deer and white-tailed deer, pronghorn antelope, small mammals, sharp-tailed grouse, and a variety of grassland and song nesting birds

Potential impacts to wildlife include construction of well pad, construction of new road, and potential future commercial operations. Minimal to no impacts on listed species are expected due to the sparseness of even anecdotal evidence that they may occur within the project area. On-site assessments confirmed that no threatened or endangered species will be impacted by proposed road or pad. Ground clearing might impact habitat for unlisted species, including small birds, ground dwelling mammals, and other wildlife species. Proposed projects may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. Fragmentation of native prairie habitat is a specific concern for grouse species. Woody debris will be mulched and mixed into the topsoil during initial disturbance.

Precautions benefitting all wildlife include:

- Locations overlying or near existing disturbances;
- No open pits or ponds;
- Installation of covers on drip buckets under valves or spigots; and
- Prompt initial reclamation.

Final and complete reclamation will proceed immediately if the well is unproductive, or promptly after a commercial well is decommissioned. Wildlife inhabiting project areas are generally expected to adapt to changing conditions and continue to thrive.

3.5 Soils

The following paragraphs discuss soils found at the well site. The Natural Resource Conservation Services (NRCS) soils data was reviewed prior to the on-site assessment and verified during the field visit. Generally, the well is located on fine-grained soils with low to moderate erosion potential. The site is suitable for construction. Site will be monitored for erosion and best management practices implemented to control erosion as necessary.

The Coyote Necklace 13-25HC site (fenced surface use area) and ROW is located on a 3-9% slope to the south comprised mostly of the Williams-Zahl loams according to the NRCS Soils Mapping Units (MUs) of Mountrail County (Table 7). Smaller amounts of Zahl-Williams loams and Badland-Cabba complex are found at the edge of the disturbance. The surface is mixed prairie grassland and the topsoil is approximately eight-inches deep across the site.

Table 7. Coyote Necklace 13-25HC Soils

Soil Name	Surface Use Acres	ROW Acres	Total Acres
Williams-Zahl loams, 6 to 9 percent slopes	1.6	5.3	6.9
Zahl-Williams loams, 9 to 25 percent slopes	0	.7	.7
Williams-Zahl loams, 3 to 6 percent slopes	2.3	0.7	3.0
Badland-Cabba complex, 9 to 70 percent slopes	1.2	0	1.2

3.6 Vegetation and Noxious Weeds

The Missouri Plateau Ecoregion (Missouri Slope) is a western mixed-grass and short-grass prairie (Bryce et al. 1998). The U.S. Department of Agriculture soil surveys for Mountrail County describe vegetation within proposed project areas as mostly cultivated farmlands, native grasses, and wetland plants. Common grain and seed crops include wheat, oats, flax, canola, and barley. Native grasses include big bluestem, little bluestem, blue grama, side-oats grama, green needlegrass, and western wheatgrass. Typical wetland plants are smartweed, sedge species, bulrush, bluejoint and cattail. Woody draws, coulees, and drainages may host communities of chokecherry, buffaloberry, western snowberry and gooseberry.

The project is located within a native prairie grassland community. The pad and ROW is situated on the gentle sloping plateau above a steep, heavily treed drainage. Western wheatgrass (*Agropyron smithii*), needle-and-thread (*Stipa comata*), and prairie junegrass (*Koeleria pyramidata*) are the dominant grasses in the area. Little bluestem (*Andropogon scoparius*) is common on the hillside slopes. Kentucky bluegrass (*Poa pratensis*) has invaded much of the area, especially within the understory of buckbrush (*Symphoricarpos occidentalis*) patches. Forbs mixed across the plateau landscape included yellow sweet clover (*Melilotus officinalis*), fringe sage (*Artemisia frigida*), spotted gay feather (*Liatris punctata*) and purple coneflower (*Echinacea angustifolia*). Smooth brome (*Bromus inermis*) dominates the road ditch of BIA 601.

Green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus Americana*) and choke cherry (*Prunus virginiana*) are found in the drainage below the ROW and proposed pad site but will not be disturbed by construction activities.

3.6.1 Noxious Weeds

The North Dakota Agriculture Commission (ND Department of Agriculture 2002) identifies twelve noxious weed plant species in the state (Table 8). Seven of the twelve noxious weed species have been reported in Mountrail County. Absinth wormwood, Canada thistle, field bindweed, leafy spurge, musk thistle, saltcedar, spotted knapweed, Russian knapweed and yellow star thistle are known to occur (ND Department of Agriculture 2007). No noxious weeds were observed at the on-site assessment.

Table 8. Noxious weeds known to occur in Mountrail Counties

Common Name	Scientific Name	5 year (2003-2007) Average Reported Acres of Noxious Weeds ¹
		Mountrail County
Absinth wormwood	<i>Artemisia absinthium</i>	1,085
Canada thistle	<i>Cirsium arvense</i>	21,232
Dalmatian toadflax	<i>Linaria genistifolia</i>	NR
Diffuse knapweed	<i>Centaurea diffusa</i>	NR
Field bindweed	<i>Convolvulus arvensis</i>	1,429
Leafy spurge	<i>Euphorbia esula</i>	21,928
Musk thistle	<i>Carduus nutans</i>	2
Purple loosestrife	<i>Lythrum salicaria</i>	NR
Russian knapweed	<i>Acroptilon repens</i>	NR
Saltcedar	<i>Tamarix spp.</i>	721
Spotted knapweed	<i>Centaurea maculosa</i>	164
Yellow starthistle	<i>Centaurea solstitialis</i>	NR

¹North Dakota Department of Agriculture 2003-2007

² Not Reported

Potential disturbance of up to 11.7 acres presents opportunities for invasive species and threatens to reduce the quality or quantity of forage or crop production. The APD and this EA require the operator to control noxious weeds throughout project areas. Vehicles that have been driven in areas with invasive species must be cleaned with high-pressure sprayers before entering the project area.

Surface disturbance and vehicular traffic must not take place outside approved ROW or the fenced area of the well pad. Areas stripped of topsoil must be re-seeded and reclaimed at the earliest opportunity and within six months. Certified weed-free straw and seed must be used for all construction, seeding, and reclamation efforts. Prompt and appropriate construction, operation, and reclamation are expected to reduce vegetative impacts to minimal levels, effectively negating the potential to establish or spread invasive species.

3.7 Cultural Resources

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

The area of potential effect (APE) of any federal undertaking must also be evaluated for significance to Native Americans from a cultural and religious standpoint. Sites and practices

may be eligible for protection under the *American Indian Religious Freedom Act of 1978* (42 USC 1996). Sacred sites may be identified by a tribe or an authoritative individual (Executive Order 13007). Special protections are afforded to human remains, funerary objects, and objects of cultural patrimony under the *Native American Graves Protection and Repatriation Act* (NAGPRA, 25 USC 3001 *et seq.*).

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

A cultural resource inventory was conducted for the proposed well pad, utility corridor, and gathering pipelines on August 25 and November 10, 2011, by Adam Leroy, Scott Yost, Andrew Lantz, and Alyssa Newcomb, SWCA Environmental Consultants (SWCA) archaeologists (Cooper, 2012). Jeff Smith, tribal monitor for the TAT-THPO, visited the site on October 6, 2011. Pedestrian survey methods were used, including parallel and sinuous transects spaced at no more than 30 meters apart. A 300-foot wide corridor was surveyed along the 1,835-foot long proposed utility corridor and 9.82 acres were surveyed around the proposed well pad. The proposed gathering pipeline, from where it deviates from the proposed utility corridor until the point where it will meet with the proposed West Van Hook Gathering System, is 804.8 feet long. The proposed gathering pipeline offshoot was also surveyed with a 300-foot wide corridor. Bare ground surface visibility averaged from 0 to 5 percent at the time of survey. The project area has been impacted by agriculture, vehicle traffic, grazing, and oil and gas exploration activities.

An aggregate total of 28.14 acres were inventoried by SWCA for the proposed project areas, including 9.82 acres at the location of the proposed well pad, 12.78 acres for the proposed utility corridor, and 5.54 acres for the proposed gathering pipeline offshoot.

A cultural resource inventory of this well pad and utility corridor was conducted by personnel of SWCA Environmental Consultants using an intensive pedestrian methodology. Approximately 28.14 acres were inventoried between August 25 and November 10, 2011 (Herson et al. 2012). No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA reached a determination of no historic properties affected for this undertaking. This determination was communicated to the THPO on January 18, 2012; however, the THPO did not respond within the allotted 30 day comment period.

If cultural resources are discovered during construction or operation, the operator shall immediately stop work, secure the affected site and notify BIA and THPO. Unexpected or inadvertent discoveries of cultural resources or human remains trigger mandatory federal procedures that include work stoppage and BIA consultation with all appropriate parties. Following any such discovery, operations will not resume without written authorization from the BIA. **Project personnel are prohibited from collecting any artifacts or disturbing cultural resources in the area under any circumstances. Individuals outside the right-of-way are trespassing.** No laws, regulations, or other requirements have been waived; no compensatory mitigation measures are required.

3.8 Socio-economics

Socioeconomic conditions include population, demographics, income, employment, and housing. These conditions can be analyzed and compared at various scales. This analysis focuses on the reservation, the four counties that overlap the majority of the Reservation and the state of North Dakota. The state population showed little change between the last two censuses (1990-2000), but there were notable changes locally, as shown in Table 9. Populations in Dunn, McKenzie, McLean, and Mountrail counties declined 5 to 11%, while population on the Fort Berthold Reservation increased by almost 10%. These trends are expected to continue (Rathge et al. 2002). While American Indians are the predominant group on the reservation, they are a minority everywhere else in the state. More than two-thirds (3,986) of the Reservation population are tribal members.

In addition to the ranching and farming that are employment mainstays in western North Dakota, employment on the Reservation largely consists of ranching, farming, tribal government, tribal enterprises, schools, and federal agencies. The MHA Nation's Four Bears Casino and Lodge, near New Town, employs over 320 people, 90% of which are tribal members (Three Affiliated Tribes 2008).

Table 9. Population and Demographics.

County or Reservation	Population in 2000	% of State Population	% Change 1990-2000	Predominant Group	Predominant Minority
Dunn County	3,600	0.56	- 10.1	White	American Indian (12%)
McKenzie County	5,737	0.89	- 10.1	White	American Indian (21%)
McLean County	9,311	1.45	- 11.0	White	American Indian (6%)
Mountrail County	6,631	1.03	- 5.6	White	American Indian (30%)
Fort Berthold Reservation	5,915,	0.92	+ 9.8	American Indian	White (27%)
Statewide	642,200	100	+0.005	White	American Indian (5%)

Source: U.S. Census Bureau 2007.

As shown in

Table 10, counties overlapping the Reservation tend to have per capita incomes, median household incomes, and employment rates that are lower than North Dakota statewide averages. Reservation residents have lower average incomes and higher unemployment rates compared to the encompassing counties. MHA Nation members are in turn disadvantaged relative to overall Reservation incomes and unemployment rates that average in non-member data. The most recent census found that per capita income for residents of the Reservation is \$10,291 (less than 1/3 the state average). Overcrowded housing skews the median reservation household income upward to \$26,274 (about 1/3 the state average). A BIA report in 2003 found that 33% of employed MHA Nation members were living below federal poverty levels. The unemployment rate of tribal members is 22% compared to 11.1% for the reservation as a whole and 4.6% statewide.

Availability and affordability of housing can affect oil and gas development and operations. Housing information from the year 2000 is summarized in Table 11. The tribal Housing Authority manages a majority of the housing units within the reservation. Housing typically consists of homes built through various government programs, low-rent housing units, and scattered-site

homes. Private purchase and rental housing are available in New Town. New housing construction has recently increased within much of the analysis area, but availability remains low.

Table 10. Income and Unemployment.

Unit of Analysis	Per Capita Income	Median Household Income	Unemployment Rate (2007)	Employed but Below Poverty Level	Percent of All People in Poverty
MHA Nation	--	--	22%	33%	Unknown
Fort Berthold Reservation	\$10,291	\$26,274	11.1%	--	Unknown
Mountrail County	\$29,071	\$34,541	5.8%	--	15.4%
Dunn County	\$27,528	\$35,107	3.4%	--	13%
McKenzie County	\$27,477	\$35,348	3.1%	--	15.8%
McLean County	\$32,387	\$37,652	4.7%	--	12.8%
North Dakota	\$31,871	\$40,818	3.2%	--	11.2%

Source: U.S. Department of Agriculture Economic Research Data 2008 and BIA 2003.

The proposed project is not expected to have measurable impacts on population trends, local unemployment rates or housing starts. Relatively high-paying construction jobs will result from exploration and development of oil and gas reserves on the reservation, but most of these opportunities are expected to be short-term. The proposed action will require temporary employees during the well construction cycle and one to two full-time employees from the long-term production cycle. Short-term construction employment will provide some economic benefit. Long-term commercial operations will provide significant royalty income and indirect economic benefits.

Table 11. Housing

Housing Development	FortBerthold Reservation	Dunn County	McKenzie County	McLean County	Mountrail County
Existing Housing					
Owner-Occupied Units	1,122	1,570	2,009	4,332	2,495
Renter Occupied Units	786	395	710	932	941
Total	1,908	1,965	2,719	5,264	3,436
New Private Housing Building Permits 2000-2005	--	18	4	135	113
Housing Development Statistics					
State rank in housing starts	--	51 of 53	15 of 53	21 of 53	17 of 53
National rank in housing starts	--	3112 / 3141	2498 / 3141	2691 / 3141	2559 / 3141

Source: U.S. Census Bureau 2007 and 2008

3.9 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, was signed by President Clinton in 1994. The Order requires agencies to advance environmental justice (EJ) by pursuing fair treatment and meaningful involvement of minority and low-income populations. Fair treatment means such groups should not bear a disproportionately high share of negative environment consequences from federal programs, policies, decisions, or operations. Meaningful involvement means federal officials actively promote opportunities for public participation and federal decisions can be materially affected by participating groups and individuals.

The U.S. Environmental Protection Agency (EPA) headed the interagency workgroup established by the 1994 Order and is responsible for related legal action. Working criteria for designation of targeted populations are provided in *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (EPA 1998). This guidance uses a statistical approach to consider various geographic areas and scales of analysis to define a particular population's status under the Order.

Environmental Justice is an evolving concept with potential for disagreement over the scope of analysis and the implications for federal responsiveness. It is nevertheless clear that tribal members on the Great Plains qualify for EJ consideration as both a minority and low-income population. The population of the Dakotas is predominantly Caucasian. While some 70% of Reservation residents are tribal members, Indians comprise only 5% of North Dakota residents.

There are, however, some unusual EJ considerations when proposed federal actions are meant to benefit tribal members. Determination of fair treatment necessarily considers the distribution of both benefits and negative impacts, due to variation in the interests of various tribal groups and individuals. There is also potential for major differences in impacts to resident tribal members and those enrolled or living elsewhere. A general benefit to the MHA Nation government and infrastructure has already resulted from tribal leasing, fees, and taxes. Oil and gas leasing has also already brought much-needed income to MHA Nation members who hold mineral interests, some of whom might eventually benefit further from royalties on commercial production. Profitable production rates at proposed locations might lead to exploration and development on additional tracts owned by currently non-benefitting allottees. The absence of lease and royalty income does not, moreover, preclude other benefits. Exploration and development will provide many relatively high-paying jobs, with oversight from the Tribal Employment Rights Office.

The owners of allotted surface within the project areas may not hold mineral rights. In such case, surface owners do not receive oil and gas lease or royalty income and their only income will be compensatory for productive acreage lost due to road and well pad construction. Tribal members without either surface or mineral rights will not receive any direct benefits whatsoever. Indirect benefits of employment and general tribal gains will be the only potential offsets to negative impacts.

Potential impacts to tribes and tribal members include disturbance of cultural resources. There is potential for disproportionate impacts, especially if the impacted tribes and members do not reside within the Reservation and therefore do not share in direct or indirect benefits. This potential is significantly reduced following the surveys of proposed well locations and access road routes and determination by the BIA that there will be no effect to historic properties. Research and survey has found nothing to be impacted at either well pad that qualifies as a traditional cultural property (TCP) under the *American Indian Religious Freedom Act*. Potential for disproportionate impacts is further mitigated by requirements for immediate work stoppage

following an unexpected discovery of cultural resources of any type. Mandatory consultations will take place during any such work stoppage, affording an opportunity for all affected parties to assert their interests and contribute to an appropriate resolution, regardless of their home location or tribal affiliation.

The proposed project has not been found to pose significant impacts to any other critical element – air, public health and safety, water, wetlands, wildlife, vegetation, or soils – within the human environment. The proposed action offers many positive consequences for tribal members, while recognizing Environmental Justice concerns. Procedures summarized in this document and in the APD are binding and sufficient. No laws, regulations, or other requirements have been waived; no compensatory mitigations measures are required.

3.10 Irreversible and Irretrievable Commitment of Resources

Removal and consumption of oil and/or gas from the Bakken and/or Three Forks Formation will 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 earthmoving or in collisions with vehicles, and energy expended during construction and operation.

3.11 Short-Term Use versus Long-Term Productivity

Short-term activities will not detract significantly from long-term productivity of the project areas. The small areas dedicated to the access roads and well pads will be unavailable for livestock grazing, wildlife habitat, and other uses. Allottees with surface rights will be compensated for loss of productive acreage. Project footprints will shrink considerably once the well are drilled and pipelines and utilities are installed and the area reclaimed and reseeded. Successful and ongoing reclamation of the landscape will quickly support wildlife and livestock grazing, stabilize the soil, and reduce the potential for erosion and sedimentation. The major long-term resource loss corresponds with the project purpose: extraction of hydrocarbons from the Bakken and Three forks Formations.

3.12 Cumulative Impacts

Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that is the focus of the cumulative impact analysis. While impacts can be differentiated as direct, indirect, and cumulative, the concept of cumulative impacts takes into account all disturbances since cumulative impacts result in the compounding of the effects of all actions over time. Thus, the cumulative impacts of an action can be viewed as the total effects on a resource, ecosystem, or human community of that action and all other activities affecting that resource no matter what entity (federal, non-federal, or private) is taking the actions.

The landscape and vegetation of the Great Plains have undergone continual transformations due to the influences of nature and human actions. Cumulative effects have occurred as a loss and alteration of habitats caused by cultivation, range management practices, fire suppression, exotic species introductions, resource development, and other practices. Environmental impacts may accumulate either over time or in combination with similar activities in the area. Unrelated activities may also have negative impacts on critical elements, thereby contributing to cumulative degradation of the environment. Past and current disturbances near the proposed project include farming, grazing, roads, and other oil/gas development. Virtually all-available acreage is already organized into agricultural leases or range units to utilize surface resources for economic benefit.

The proposed project would be one of various proposed developments in the area. As such, it would contribute only a portion of the cumulative impacts. In some instances, the cumulative impact on the environment of the proposed project and oil/gas development activities would be the sum of the individual impacts from each project in the region. There are other impacts, however, that cumulatively may be greater than the sum of the individual projects.

The major activity with potential to impact critical elements of the human environment is oil field development. Over the past several years, exploration has accelerated over the Bakken and Three Forks Formation and has accelerated within the reservation boundary the last three years. Perimeters of 1, 5, 10, and 20 miles around the proposed well sites were evaluated to determine the level of oil and gas activity in the surrounding area, as shown in Table 12 and in Figure 12. There are now 33 active wells within five miles of the sites considered in this document with at least 22 confidential sites in the area as reported by the NDIC. The immediate area is currently being developed by WPX and other producers. Within ten miles, there are currently 111 active wells with 83 proposed. Within 20 miles, there is approximately 1,013 total oil and gas wells in various stages of development or production, with ever increasing development within the Fort Berthold boundaries.

Table 12. Oil and Gas Well Status in Area

Distance from Well Sites	Active Wells	Proposed Wells (Confidential)	Permitted to Drill	Currently Drilling ¹	Totals
0-1 miles	0	2	0	0	2
1-5 miles	33	22	0	0	55
5-10 miles	111	83	4	11	209
10-20 miles	440	255	30	22	745
Cumulative Total (20-mile radius)	584	362	34	33	1013
FortBerthold Reservation	380	289	23	24	716

*NDIC OG well status – December 5, 2011

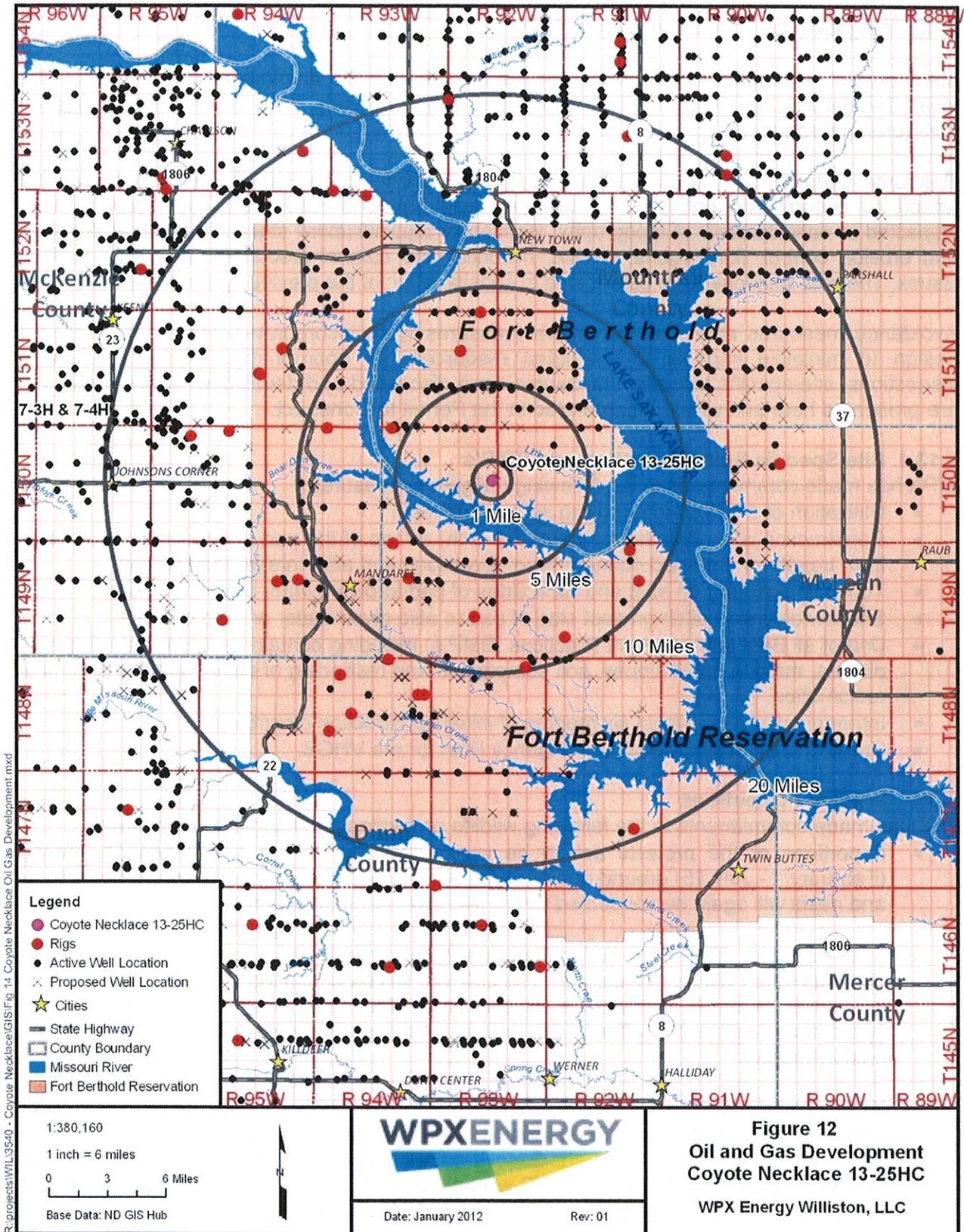
Commercial success at any new well might result in additional oil/gas exploration proposals, but such developments are speculative at this time. WPX has numerous wells in various stages of development, in the planning process or in the application process. Such developments will rely wherever possible on shared roads, expanding pads to accommodate multiple wells, centralized and downsized facilities, and other opportunities to reduce surface disturbance and impacts to the human environment. WPX is developing a gas, oil, and produced water gathering system and a fresh water delivery system to connect all wells planned for development in the area. The development of this VHGS will dramatically reduce the amount of oil field truck traffic on the Sanish Peninsula over the life of the oil field.

Approved oil/gas leases may lead to additional exploration and development, but additional analysis and BIA approval are required before the surface is disturbed at any other location. Potential impacts from possible future development cannot be meaningfully analyzed at this time. Not only is the level of development highly sensitive to volatile commodities prices, but additional development may increase interest in pipelines, thereby *reducing* impacts to certain critical elements of the human environment, such as public safety and air quality.

There will be ground disturbing activities to lands that have not been previously cultivated or otherwise physically manipulated. The Coyote Necklace 13-25H well site will disturb a portion of native prairie rangelands. There are no wetlands, floodplains, or major drainage facilities that will be significantly negatively affected by the proposed well site. Current land uses are expected to continue with little change other than the acreage required for road and pad construction. Increased truck traffic on adjacent roadways can be expected and has a documented negative, but manageable, impact on road conditions.

The proposed actions have been planned to avoid impacts to wetlands, floodplains, surface water, cultural resources, and threatened and endangered species. Unavoidable affects to these or other resources will be minimized and/or mitigated as described in this document. The operator of any facility will be required to complete reclamation following construction and completion. Implementation of other precautionary and protective measures detailed in this EA and applicable regulations are expected to minimize impacts to all critical elements of the human environment. Impacts from the proposed projects are expected to generally be minor, temporary, manageable, and/or insignificant. No cumulative impacts are reasonably foreseen from existing and proposed activities, relative to the existing scale of development, other than increasingly positive impacts to the reservation economy.

Figure 12. Oil and Gas Development



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3.13 Mitigation and Commitments by WPX

Many protective measures and procedures are described in this document and in the APD. No laws, regulations, or other requirements have been waived; no compensatory mitigation measures are required.

Resource surveys were conducted at the time of on-site inspections to determine potential affects to cultural and natural (i.e., biological and physical) resources. The locations were inspected in consideration of topography, location of topsoil/subsoil stockpiles, natural drainage and erosion control, flora, fauna, habitat, historical and cultural resources, and other surface issues. The final locations were determined in consideration of the previously identified issues.

Avoidance measures and other protective measures were incorporated into the final project design to minimize impacts to evaluated resources, as appropriate. During the onsite inspections, site-specific mitigation measures were discussed and developed. Those measures are presented here and will be incorporated in the Permit to Construct.

3.13.1 Site Specific Spill Prevention and BMP's

WPX has made commitments to the following mitigation measures:

- Utilization of a closed-loop drilling system (pit-less)
- Construction of a containment berm (48-inch) on top of the pad to contain surface water from transferring off pad during drilling operations and after interim reclamation.
- Topsoil placement on east and west sides of pad to divert water around pad site.
- Shallow diversion ditch on east side of pad to also divert water around pad site.
- Use of all Best Management Practices (BMP's) including containment berm(s), diversion ditches, matting on fill slopes, soil compaction and reseeding of native species after final reclamation.
- Interim reclamation within six months of initial construction disturbance.
- Use of the Emergency Spill Contingency Plan for the VHGS.

3.13.2 Wildlife Protections

WPX has made commitments to the following wildlife protection and mitigation measures:

- If portions of the projects are to be constructed during the spring nesting season (February 1 - July 15) ground and/or aerial surveys for migratory birds (including raptors) and nests will again be conducted within five-days of construction.
- If a migratory bird nest is located, the location will be recorded, monitored and documentation will be maintained. The USFWS will be consulted to determine mitigation measures to avoid disturbance of the nest. Measures may include applying an appropriate avoidance buffer to the nest or delaying construction in that area until the nest is fledged.
- If the site is scheduled to be constructed during the nesting season for piping plovers and least terns (April 15 - September 1) surveys will be conducted five-days prior to construction. If birds or nests are discovered, all construction in the immediate area will be stopped and the BIA and USFWS will be consulted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of raptor or migratory bird nesting sites.

- Construction in the immediate area will be stopped if whooping cranes are sighted within one mile of the construction activity and not resume until the birds have left the area. Any sightings will be immediately reported to the USFWS, NDGFD, and the BIA.

3.13.3 Utilities

Underground utilities including electric, fiber optic, gas, water, and oil gathering lines are planned be constructed within the evaluated corridor. All efforts will be made to install utilities at one time and around the same time of interim reclamation of pad site.

3.13.4 Dust Control

WPX will practice watering and/or application of a dust suppressant as necessary the access roads during construction, especially during periods of high winds and/or low precipitation.

3.13.5 Fire Control

WPX implements fire prevention and control measures including, but not limited to, the following:

- Requiring construction crews to carry fire extinguishers in their vehicles and/or equipment.
- Training construction crews in the proper use of fire extinguishers.
- Contracting with the local fire district to provide fire protection.

3.13.6 Traffic and Roads

Cooperative efforts by operators, agencies, and the tribe are currently being developed and implemented across FBIR. These measures include the following.

- Requiring construction personnel to stay within the ROW or follow designated access roads.
- Increasing the pipeline infrastructure, centralizing water depots, and developing salt water disposal wells to reduce overall truck traffic and road degradation.
- Utilizing Tribal TERO fees for oil and gas activities, TAT Tribal funds, and IRR funds to increase the pace of maintenance and repair of roads impacted by increased truck traffic and unusually adverse weather conditions.

3.13.7 Cultural Resources

If cultural resources are discovered during construction or operation, the operator shall immediately stop work, secure the affected site and notify BIA and THPO. Unexpected or inadvertent discoveries of cultural resources or human remains trigger mandatory federal procedures that include work stoppage and BIA consultation with all appropriate parties. Following any such discovery, operations will not resume without written authorization from the BIA. Project personnel are prohibited from collecting any artifacts or disturbing cultural resources in the area under any circumstances. Individuals outside the right-of-way are trespassing.

4.0 Consultation and Coordination

Project scoping letters and maps were mailed on October 24, 2011. Direct mail recipients and a record of comments were received are listed in Table 13. An example scoping letter and responses are found in Appendices A and B. Species effect determination was received from USFWS on February 01, 2012 and is found in Appendix B.

Table 13. Scoping Record

<u>Recipients</u>	<u>Comments</u>
Bureau Of Land Management	No Response
Bureau of Reclamation	No Response
Dunn County	No Response
EPA	No Response
FAA Bismarck	No Response
FAA Minneapolis	No Response
FEMA	Consult local MHA Nation DES Director
Fort Berthold Rural Water Supply	No Response
McKenzie Ranger District	No Response
McLean County Board of Commissioners	No Response
MHA Nation	No Response
MHA Nation District Rep	No Response
MHA Nation Chairman	No Response
MHA Nation Game & Fish	No Response
MHA Nation Natural Resources Dept.	No Response
MHA Nation THPO	No Response
Montana Dakota Utilities	No Response
Mountrail Board of Commissioners	No Response
National Park Service	No Response
ND DOT	No Response
ND Game and Fish	Avoid loss and fragmentation of native prairie, wooded draws, riparian corridors and wetlands
ND NRCS	Consult if wetlands are impacted
NDIAC	No Response
New Town Municipal Airport	No Response
NoDak Electric Cooperative, Inc.	No Response
North Dakota Department of Health	Minimize dust, minimize degradation to waterways, ensure proper storm water management.
North Dakota Parks and Recreation Dept.	No species of concern or significant ecological communities within one-mile
Parshall-Hankins Field Airport	No Response
Reservation Telephone Co-op	No Response

Southwest Water Authority	No Response
Spirit Lake Tribe	No Response
Standing Rock Sioux Tribe	No Response
State Historical Society	Request for cultural resource survey results
Turtle Mountain Band of Chippewa	No Response
USACOE - Bismarck	Nationwide Permit 12 information provided
USACOE - Riverdale	Recommend down slope trenching to contain hazardous wastes, use closed-loop drilling, weed free fill material, remove undesirable vegetation, NSO ½ mile of T&E species, construct Aug 15-April 1 to reduce disruption during breeding season, and asses cumulative impacts.
USFWS	Concurrence with mitigation efforts and T&E species determinations
Ward County Board of Commissioners	No Response

5.0 List of Preparers

An interdisciplinary team contributed to this document, following guidance in Part 1502.6 of CEQ regulations. Portions of the documents were drafted by Carlson McCain, Inc, under contract to WPX and under the direction of BIA. Federal officials, oil and gas representatives, and consultants included the following:

Bureau of Indian Affairs

Marilyn Bercier

Mark Herman

WPX Energy Williston, LLC

Nelson Klitzka, Regulatory Specialist

Jennifer Head, Regulatory Team Lead

Carlson McCain, Inc.

Todd Hartleben, Senior Engineer

Ryan Krapp, Wildlife Biologist/GIS Specialist

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Appendix A
Scoping and Concurrence Request



October 24, 2011

US Fish and Wildlife Service
Mr. Jeffrey Towner
Field Supervisor
3425 Miriam Avenue
Bismarck, ND 58501

**Re: Request for Comments
Proposed Oil & Gas Well Pad
Coyote Necklace
Dakota D-3 E&P Company, LLC**

Dear Mr. Towner:

On behalf of Dakota-3 E&P Company, LLC (a subsidiary of Williams), Carlson McCain, Inc. is submitting information concerning development of the proposed Coyote Necklace well pad. The proposed well site (Site) will include one well bore into the Bakken formation. The Site and associated access route is located on the Fort Berthold Reservation in Section 13, T150N, R93W in Mountrail County (Figure 1).

An on-site biological assessment of the Site was conducted on August 27, 2011, with the Bureau of Indian Affairs (BIA). At the initial on-site visit the proposed well site and access road were "soft" staked and the location was reviewed in consideration of topography, natural drainage and erosion control, vegetation, T&E species, migratory birds, wildlife and habitats, historical and cultural resources and other surface impacts. Site-specific mitigation measures were discussed and incorporated into the final project design to minimize impacts to evaluated resources.

Project Description

The proposed site is planned to have one well bore, drilled horizontally to access petroleum resources of the Bakken formation under sections 24 and 25 (Figure 2). The proposed well pad working surface will initially be constructed approximately to 430 feet by 230 feet in size, or approximately 3.95 acres (Figure 3). The overall construction surface use loss (fenced area) will be approximately 5.1 acres. Interim site reclamation after well completions will reduce the pad working surface size to approximately half of original size and with surrounding area recontoured and reseeded.

The access route will begin at BIA 601 and proceed west and south to the pad approximately 1,844 feet. A maximum disturbance width (ROW) of 130 feet will result in a approximate 5.5 acres of disturbance. The pad site is located within native mixed grass prairie community. Western wheatgrass (*Agropyron smithii*), needle-and-thread (*Stipa comata*), prairie junegrass (*Koeleria pyramidata*) and the invasive Kentucky bluegrass (*Poa pratensis*), are dominant on the flats. Little bluestem (*Andropogon scoparius*) is prevalent on side hills. Forbs mixed across the landscape included buckbrush (*Symphoricarpos occidentalis*), fringed sagebrush (*Artemisia frigid*), purple coneflower (*Echinacea angustifolia*), Silver leaf scurfpea (*Psoralea argophylla*). Green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus Americana*) and chokecherry (*Prunus virginiana*) drainages flank the proposed pad site.

Dakota-3 E&P commits to drilling this well utilizing a closed-loop drilling (pit-less) system. Drilling materials will be contained in tanks and disposed of properly at an approved waste disposal facility. Additionally a 48-inch high containment berm will be constructed on top of the fill side of pad to contain any pad surface runoff. Topsoil will be stockpiled and a shallow drainage ditch will be established on the east-northeast corner of the pad above the access road to divert water around pad. Topsoil from site will be removed at a depth of 8 inches and stored onsite for interim and final reclamation use. The corners of the proposed well pad have been rounded on the north and south corners to not extend into drainages. A 1:1 slope will be maintained on the cut slope in effort to not cut into drainage to aid in successful reclamation. Best Management Practices (BMP's) including the use of a containment berm(s), fiber rolls, sediment fencing, soil compaction and reseeding of native species will be utilized during construction and after final reclamation on all fill slopes. Pipelines (gas, oil, produced water, fresh water) and utilities (electrical and fiber optic) will be installed underground in the same access road ROW corridor.

Migratory Birds and Raptors

Proposed oil and gas development in the area may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. These impacts are regulated in part through the *Migratory Bird Treaty Act* (916 USC 703-711) and the Bald and Golden Eagle Protection Act (BGEPA).

A ground survey for cliff, tree, and ground raptor nests was conducted within line-of sight of the proposed project. No nests were observed during the on-site review on August 26, 2011. The project area was also surveyed for other migratory bird species. At the time of the survey a single Song sparrow (*Melospiza melodia*) was observed using the immediate area. Due to the location of the proposed project in a grassland community a raptor and migratory bird survey will be conducted 5 days prior to construction (February 1 - July 15) and/or mowing and grubbing will take place on the site in the preceding fall. If birds or nests are discovered, all construction will be stopped and the BIA and USFWS will be consulted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of raptor or migratory bird nesting sites. If mowing or grubbing does take place maintenance of the habitat in a degraded state will occur until construction begins.

High Value Habitat Avoidance

The ND Parks and Recreation Department (NDPRD) maintains the North Dakota Natural Heritage biological conservation database. A request for record review will be done to determine if any current or historic plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area.

The proposed pad site is located within a rolling native prairie community. A closed-loop drilling (pit-less) system will be employed. Drilling materials will be contained in tanks and disposed of off-site eliminating or greatly reducing potential for contamination or leaching. No high value wildlife habitat will be compromised by pad construction but there will be an overall loss of grassland cover. At the time of the field visit, no significant ecological communities were observed.

Disturbed areas and spoil piles will be reseeded with a native seed mix as specified by the BIA. Dakota-3 E&P and the BIA will monitor the seeding success and weed species control over life of project.

Cumulative Impacts

The well site and access route will result in approximately 10.6 total acres of agricultural land (pasture) loss. Potential impacts to wildlife will be minimal in the context of development in the immediate area. Access road and pad construction is near established roads oil facilities and should not significantly negatively affect unlisted species, including migratory birds, small and large mammals, and other wildlife species.

There are no wetlands, floodplains, or major drainage facilities that will be significantly negatively affected by the proposed well site. Mitigation efforts mentioned above will greatly reduce potential negative effects of wells drilled near Lake Sakakawea. Current land uses are expected to continue with little change other than the acreage required for development. Increased truck traffic on adjacent roadways can be expected and has a documented negative, but manageable, impact on road conditions.

Biological Species Assessment

Assessments for Federally listed threatened and endangered species were conducted by evaluating historic and present occurrences and by determining if potential habitat exists within the project area. A determination was made concerning direct and cumulative effects of the proposed activities on each species. Threatened and endangered species with documented occurrences in Mountrail County are listed in Table 1.

Table 1. Mountrail County Threatened, Endangered and Candidate Species List

Species	Status
Interior Least Tern	Endangered
Whooping Crane	Endangered
Pallid Sturgeon	Endangered
Gray Wolf	Endangered
Piping Plover and Designated Critical Habitat	Threatened
Sprague's Pipit	Candidate
Dakota Skipper	Candidate

¹ USFWS (updated March, 2011)

Dakota Skipper

Dakota skippers are 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; and 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needlegrass, pale purple coneflower and upright coneflowers and blanket flower. Dakota skipper populations have declined historically due to widespread conversion of native prairie.

The proposed pad site will be developed within an invaded native prairie pasture. The dry, rolling pasture does have needlegrass and coneflowers present as a good percentage of the dominant vegetation. Based upon these landscape conditions the proposed activities *may affect, is not likely to adversely affect* this species.

Conclusion

The BIA has required the following site-specific construction procedures be implemented to help reduce potential impacts to wildlife and habitat:

- Use of a closed-loop drilling system (pit-less)
- Construction of an 48" high containment berm on the pad
- Maintenance of a 1:1 slope on the cut side to not open up to drainage
- Raptor and migratory bird survey 5 days prior to construction
- Interim and final reclamation including:
 - Use of BMPs (soil compaction, fiber rolls, berms, sediment fences, fabric etc.) to reduce erosion potential
 - Monitoring and maintenance of potential erosion areas.
 - Seeding of native species.
 - Indefinite monitoring of seeding success and weed species control.

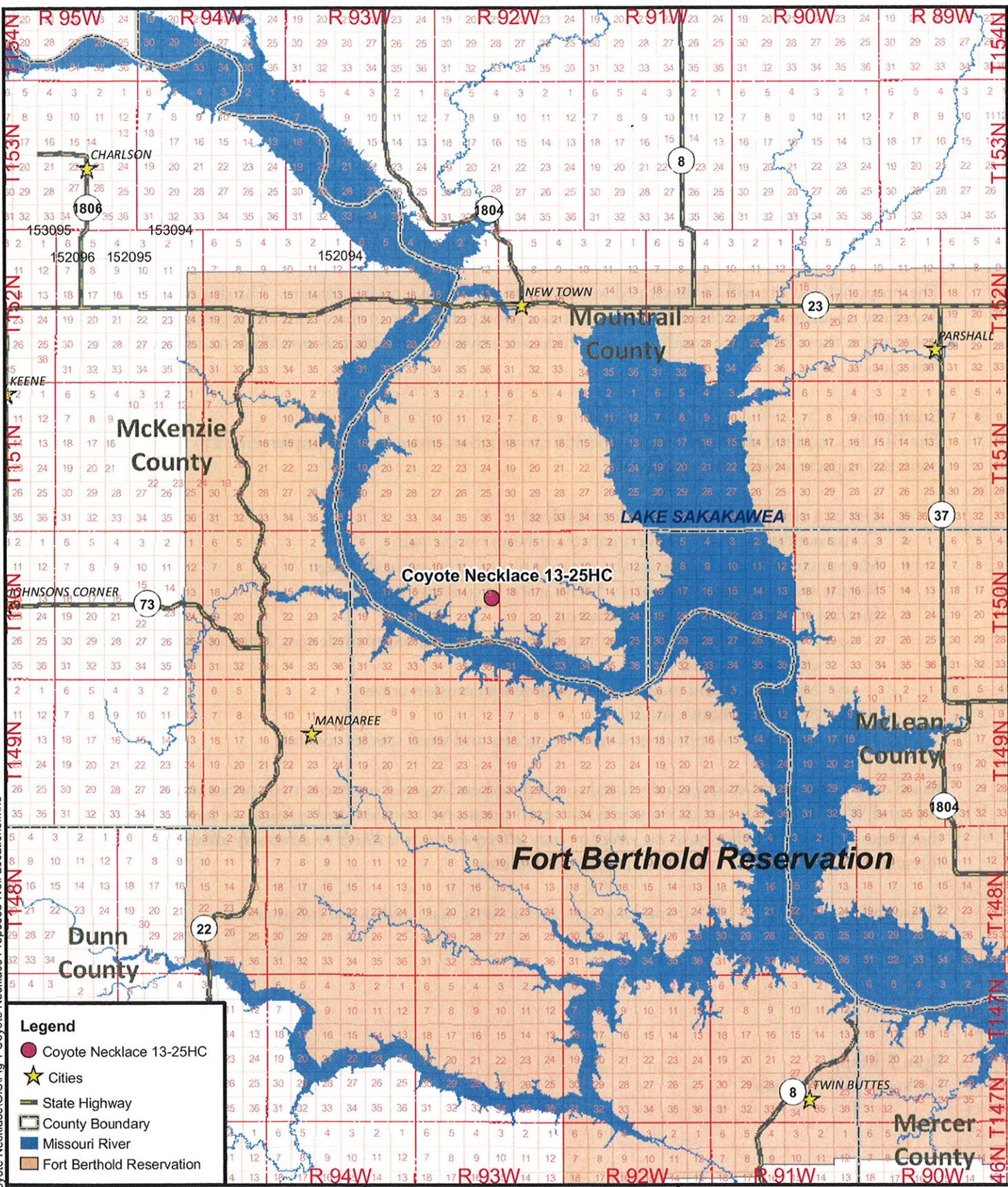
Based on a review of a list of federally listed or proposed endangered or threatened species under U.S. Fish and Wildlife Service jurisdiction, in addition to occasional transient individuals, we have determined that these actions will either have *no effect* or *may affect, but is not likely to adversely affect* listed threatened, endangered or candidate species and habitats.

Please call me at 701-255-1475 if you have any questions or need additional information.

Sincerely,

Ryan J. Krapp
Ecologist/GIS Specialist

R:\projects\WILL3540 - Coyote Necklace\GIS\Fig 1 Coyote Necklace Proposed Well Locations.mxd



Legend

- Coyote Necklace 13-25HC
- ★ Cities
- State Highway
- - - County Boundary
- Missouri River
- Fort Berthold Reservation

1:316,800

1 inch = 5 miles

0 2.5 5 Miles

Base Data: ND GIS Hub

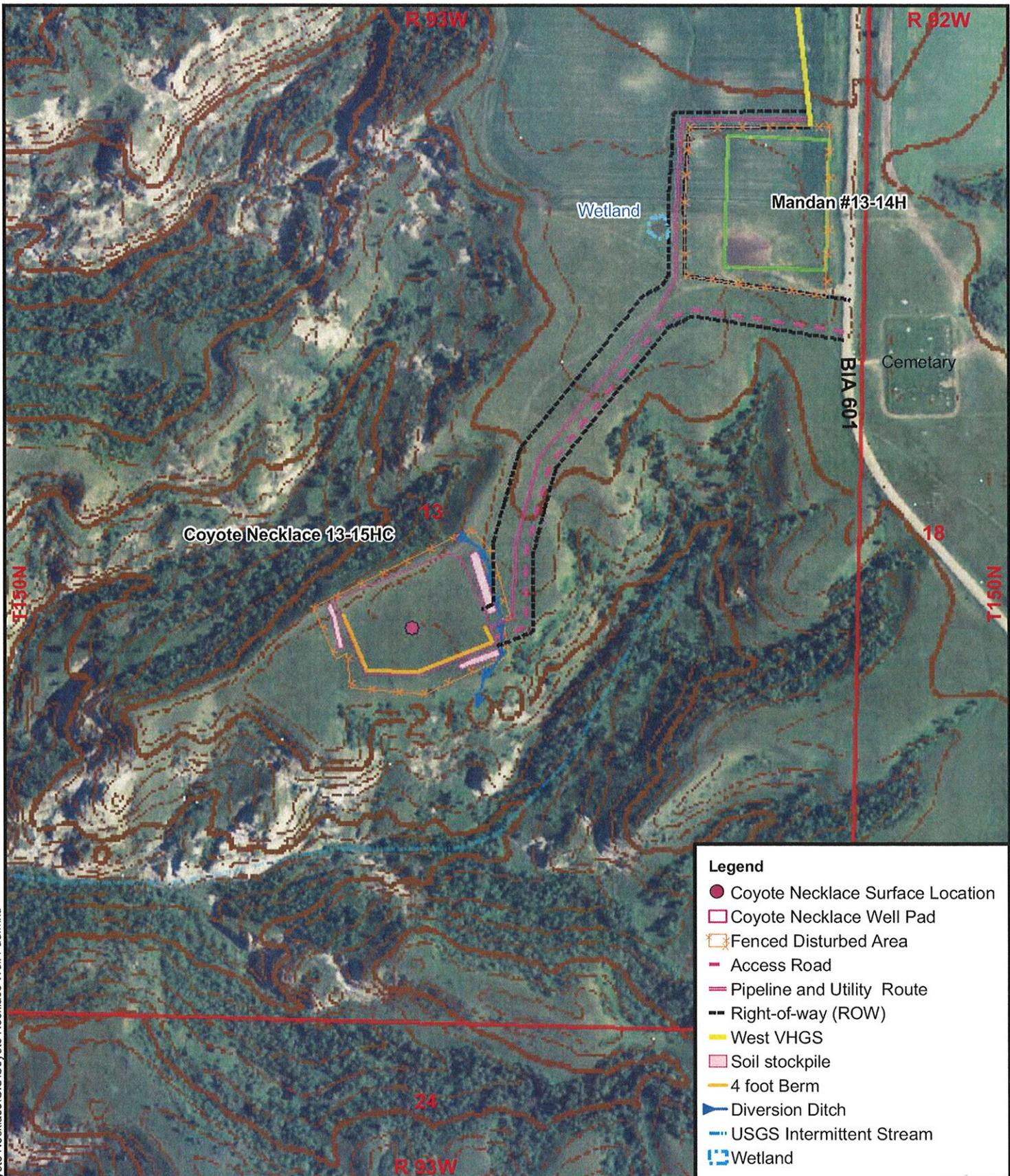


Williams

Date: December 2011 Rev: 01

Figure 1
Proposed Well Location
Coyote Necklace 13-25HC
 Dakota-3 E&P Company, LLC

R:\projects\WILL3540 - Coyote Necklace\GIS\Coyote Necklace Well Pad.mxd



Legend

- Coyote Necklace Surface Location
- Coyote Necklace Well Pad
- ▭ Fenced Disturbed Area
- Access Road
- Pipeline and Utility Route
- - - Right-of-way (ROW)
- West VHGS
- Soil stockpile
- 4 foot Berm
- Diversion Ditch
- USGS Intermittent Stream
- Wetland

1:4,800
 1 inch = 400 feet
 0 200 400 Feet

Basemap: USGS 24K Quadrangle
 Sanish SE; NAIP 2010 Mountrail County



Date: January 2012

Rev: 01

Figure 6
Coyote Necklace 13-25H
Well Site and ROW
Dakota-3 E&P Company, LLC



ENVIRONMENTAL • ENGINEERING • LAND SURVEYING

October 19, 2011

Ronald Melhouse
Bureau of Reclamation
P.O. Box 1017
Bismarck, ND 58502

RE: Request for Comments
Dakota D-3 E&P Company, LLC

Dear Mr. Melhouse,

On behalf of Dakota-3 E&P Company, LLC, Carlson McCain is submitting information concerning development of a proposed oil and gas extraction location on the Fort Berthold Reservation (Reservation). The Bureau of Indian Affairs (BIA) is preparing an environmental assessment (EA) under the National Environmental Policy Act (NEPA) for the proposed action(s). The proposed surface location for the well pad are described below, and illustrated on the Project location map (Figure 1).

- Coyote Necklace #13-25H well:

Associated appurtenances include roads, utility lines, and production and storage facilities. A closed-loop drilling system will be utilized to drill the well and a berm will be in place top of on pad. In general, oil will be stored on location in tank batteries and then hauled to the nearest processing plant or sales point. Produced water will be transported by truck to water disposal wells or enclosed tanks. Any gas produced from these wells will initially be flared until a gathering system can be planned, permitted, and constructed.

In accordance with NEPA requirements, we are requesting comments regarding the proposed project. Comments are requested to be sent before November 23, 2011, so they may be incorporated into the final decision making. Please send comments to my attention at the address below.

2718 Gateway Avenue, Suite 101
Bismarck, ND 58503

Sincerely,

Ryan J. Krapp
Ecologist
rkrapp@carlsonmccain.com

Appendix B

Scoping Responses and Concurrence



ENVIRONMENTAL • ENGINEERING • LAND SURVEYING

October 24, 2011

US Fish and Wildlife Service
Mr. Jeffrey Towner
Field Supervisor
3425 Miriam Avenue
Bismarck, ND 58501

Re: Request for Comments
Proposed Oil & Gas Well Pad
Coyote Necklace
Dakota D-3 E&P Company, LLC

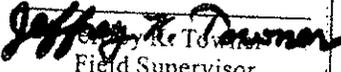
Dear Mr. Towner:

On behalf of Dakota-3 E&P Company, LLC (a subsidiary of Williams), Carlson McCain, Inc. is submitting information concerning development of the proposed Coyote Necklace well pad. The proposed well site (Site) will include one well bore into the Bakken formation. The Site and associated access route is located on the Fort Berthold Reservation in Section 13, T150N, R93W in Mountrail County (Figure 1).

An on-site biological assessment of the Site was conducted on August 27, 2011, with the Bureau of Indian Affairs (BIA). At the initial on-site visit the proposed well site and access road were "soft" staked and the location was reviewed in consideration of topography, natural drainage and erosion control, vegetation, T&E species, migratory birds, wildlife and habitats, historical and cultural resources and other surface impacts. Site-specific mitigation measures were discussed and incorporated into the final project design to minimize impacts to evaluated resources.

Project Description

The proposed site is planned to have one well bore, drilled horizontally to access petroleum resources of the Bakken formation under sections 24 and 25 (Figure 2). The proposed well pad working surface will initially be constructed approximately to 430 feet by 230 feet in size, or approximately 3.95 acres (Figure 3). The overall construction surface use loss (fenced area) will be approximately 5.1 acres. Interim site reclamation after well completions will reduce the pad working surface size to approximately half of original size and with surrounding area recontoured and reseeded.

U.S. FISH AND WILDLIFE SERVICE ECOLOGICAL SERVICES ND FIELD OFFICE	
Project as described will have no significant impact on fish and wildlife resources. No endangered or threatened species are known to occupy the project area and/or are not likely to be adversely affected. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT PLANS FOR REVIEW.	
2-1-12	
Date	Jeffrey K. Towner Field Supervisor

Determinations made for federally listed species are:

- No effect
- May affect, is not likely to adversely affect
- May affect, is likely to adversely affect

Gray Wolf

Gray wolves, an Endangered Species in North Dakota, were historically found throughout much of North America including the Upper Great Plains. Human activities have restricted their present range to the northern forests of Minnesota, Wisconsin, and Michigan and the Northern Rocky Mountains of Idaho, Montana, and Wyoming. They now only occur as occasional visitors in North Dakota. The most suitable habitat for the gray wolf is found around the Turtle Mountains region where documented and unconfirmed reports of gray wolves in North Dakota have occurred (Grondahl and Martin, no date). Due to the transient nature and no recent recorded sightings in the area the proposed project *may affect, is not likely to adversely affect* this species.

Interior Least Tern

The interior least tern nests on midstream sandbars along the Yellowstone and Missouri River systems. Interior least terns construct bowl-shaped depression nests on sparsely vegetated sandbars and sandy beaches. Their nesting period occurs between mid-May through mid-August. During the nesting season the least tern has been documented to travel 7.5 miles or more from the lake to forage in wetlands. The proposed well site is located approximately 3,300 feet from and but not within direct line-of-sight of the Missouri River system shoreline. No individuals were observed in the area during the onsite visit. The pad site will not impact any wetlands and mitigation practices will be employed to protect drainages and lake. Following these guidelines, it is reasonable to expect that the proposed activities *may affect, is not likely to adversely affect* this species.

Pallid Sturgeon

Pallid sturgeon are found in the Mississippi, Missouri, and Yellowstone River systems and are adapted for living close to the bottom of large, shallow rivers with sand and gravel bars. Pallid sturgeon populations in North Dakota have decreased since the 1960's (Grondahl and Martin no date). The proposed well site is located approximately 3,300 feet from Lake Sakakawea. BMP's will be implemented, including a containment berm surrounding the proposed well pad site and utilizing a closed-loop (pit-less) drilling system, as such the project will have *no effect* on this species.

Whooping Crane

The primary nesting area for the whooping crane is in Canada's Wood Buffalo National Park. Arkansas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate primarily along the Central Flyway. During the migration, cranes make numerous stops, roosting in large shallow marshes, and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss (Texas Parks and Wildlife 2008).

The proposed well site is located within the Central Flyway. Approximately 75% of the whooping crane sightings in North Dakota occur within a 90-mile corridor that includes the proposed well location.

Because collisions with power lines are the primary cause for fledgling mortality, it is BIA directive that any utility lines be constructed underground. Land use in the area is rolling native pasture dissected by heavily treed drainages. The pad and access road are placed in a location that has little potential for whooping crane stop-over habitat. No individual whooping cranes were observed in the area during the on-site visits.

Construction activities may cause migratory cranes to divert from the area but are not likely to result in fatalities. If a crane is sighted within one mile of the project area, construction activities will cease and will be immediately reported to the US Fish and Wildlife Service (USFWS), North Dakota Game and Fish Department (NDGFD), and the BIA. In coordination with the USFWS and the BIA construction will resume once the bird(s) have left the area. Following these guidelines, it is reasonable to expect that the proposed activities *may affect, is not likely to adversely affect* whooping cranes.

Piping Plover and Critical Habitat

Piping plovers are found along the Missouri and Yellowstone River systems on gravel shorelines and sandbars and also on large alkaline wetlands. Nesting sites have been documented on the shorelines of Lake Sakakawea. In addition, critical habitat has been designated along Lake Sakakawea. NDPRD will be consulted on historic records indicating piping plover sightings and critical habitat within 2-miles of the project site.

The proposed well site is located in pasture lands and approximately 3,300 feet from and not within line-of-sight of the Missouri River system shoreline. No individuals were observed in the area during the onsite visit and critical habitat is not located in the area. The pad site will not impact any wetlands and mitigation practices will be employed to protect drainages and lake. Following these guidelines, it is reasonable to expect that the proposed activities *may affect, is not likely to adversely affect* this species.

Sprague's Pipit

The Sprague's pipit is a ground nesting bird that breeds and winters on open grasslands. It feeds mostly on insects and spiders and some seeds. The Sprague's pipit is closely tied with native prairie habitat and breeds in the north-central United States in Minnesota, Montana, North Dakota and South Dakota as well as south-central Canada. During the breeding season, Sprague's pipits prefer large patches of native grassland with a minimum size requirement thought to be approximately 145 ha (358.3 ac). The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs. Preferred grass height is estimated to be between 10 and 30 cm. They may avoid roads, trails, and habitat edges.

The proposed pad site will be developed within a native prairie pasture dissected by treed drainages. The pasture was not grazed and vegetation height was moderate to high (>30cm). Shrub species (hawthorn and chokecherry) and green ash occupy the immediate landscape. Based upon these landscape conditions the proposed activities *may affect, is not likely to adversely affect* this species.

Dakota Skipper

Dakota skippers are 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; and 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needlegrass, pale purple coneflower and upright coneflowers and blanket flower. Dakota skipper populations have declined historically due to widespread conversion of native prairie.

The proposed pad site will be developed within an invaded native prairie pasture. The dry, rolling pasture does have needlegrass and coneflowers present as a good percentage of the dominant vegetation. Based upon these landscape conditions the proposed activities *may affect, is not likely to adversely affect* this species.

Conclusion

The BIA has required the following site-specific construction procedures be implemented to help reduce potential impacts to wildlife and habitat:

- Use of a closed-loop drilling system (pit-less)
- Construction of an 48" high containment berm on the pad
- Maintenance of a 1:1 slope on the cut side to not open up to drainage
- Raptor and migratory bird survey 5 days prior to construction
- Interim and final reclamation including:
 - Use of BMPs (soil compaction, fiber rolls, berms, sediment fences, fabric etc.) to reduce erosion potential
 - Monitoring and maintenance of potential erosion areas.
 - Seeding of native species.
 - Indefinite monitoring of seeding success and weed species control.

Based on a review of a list of federally listed or proposed endangered or threatened species under U.S. Fish and Wildlife Service jurisdiction, in addition to occasional transient individuals, we have determined that these actions will either have *no effect* or *may affect, but is not likely to adversely affect* listed threatened, endangered or candidate species and habitats.

Please call me at 701-255-1475 if you have any questions or need additional information.

Sincerely,



Ryan J. Krapp
Ecologist/GIS Specialist

United States Department of Agriculture



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

November 17, 2011

Ryan J. Krapp
Carlson McCain
2718 Gateway Avenue, Suite 101
Bismarck, ND 58503

RE: Request for Comments – Coyote Necklace #13-25H Well – Mountrail County, ND
Dakota D-3 E&P Company, LLC

Dear Mr. Krapp:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated October 19, 2011, concerning a proposed oil and gas well on one well pad on site Coyote Necklace #13-25H; Fort Berthold Reservation in Mountrail County, North Dakota.

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-agricultural use when the project utilizes federal funds. It appears your proposed project is not supported by federal funding; therefore, FPPA does not apply and no further action is needed.

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

Helping People Help the Land

An Equal Opportunity Provider and Employer

Mr. Krapp
Page 2

NRCS would recommend that impacts to wetlands be avoided. If the alignment of the project requires passage through 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, NRCS, Bismarck, North Dakota (701-530-2019).

Sincerely,



JEROME M. SCHAAR
State Soil Scientist/MO 7 Leader



Jack Dabrymple, Governor
Mark A. Zimmerman, Director

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

November 14, 2011

Mr. Ryan Krapp
Carlson McCain
2718 Gateway Ave.
Suite 101
Bismarck, ND 58503

Re: Dakota D-3 E&P Company, LLC – Coyote Necklace #13-25H Well

Dear Mr. Krapp,

The North Dakota Parks and Recreation Department (the Department) has reviewed the above referenced proposed development of an oil and gas extraction located on the Fort Berthold Reservation.

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

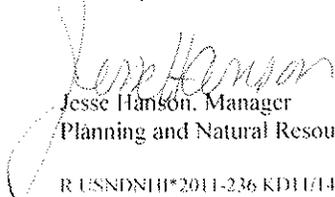
The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, we have two ecological community occurrences *Pascopyrum smithii* – *nasella* (*Stipa*) *viridula* prairie (Needlegrass-wheatgrass prairie) and *Stipa comata* – *Bouteloua gracilis*/*Carex filifolia* prairie (Needle-and-Thread Mixed grass Prairie) documented adjacent to project area. Please see the attached spreadsheet and map for more information on these occurrences.

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.

We appreciate your commitment to rare plant, animal and ecological community conservation, management and inter-agency cooperation to date. For additional information please contact Kathy Duttonhefner (701-328-5370 or kaduttonhefner@nd.gov) of our staff. Thank you for the opportunity to comment on this proposed project.

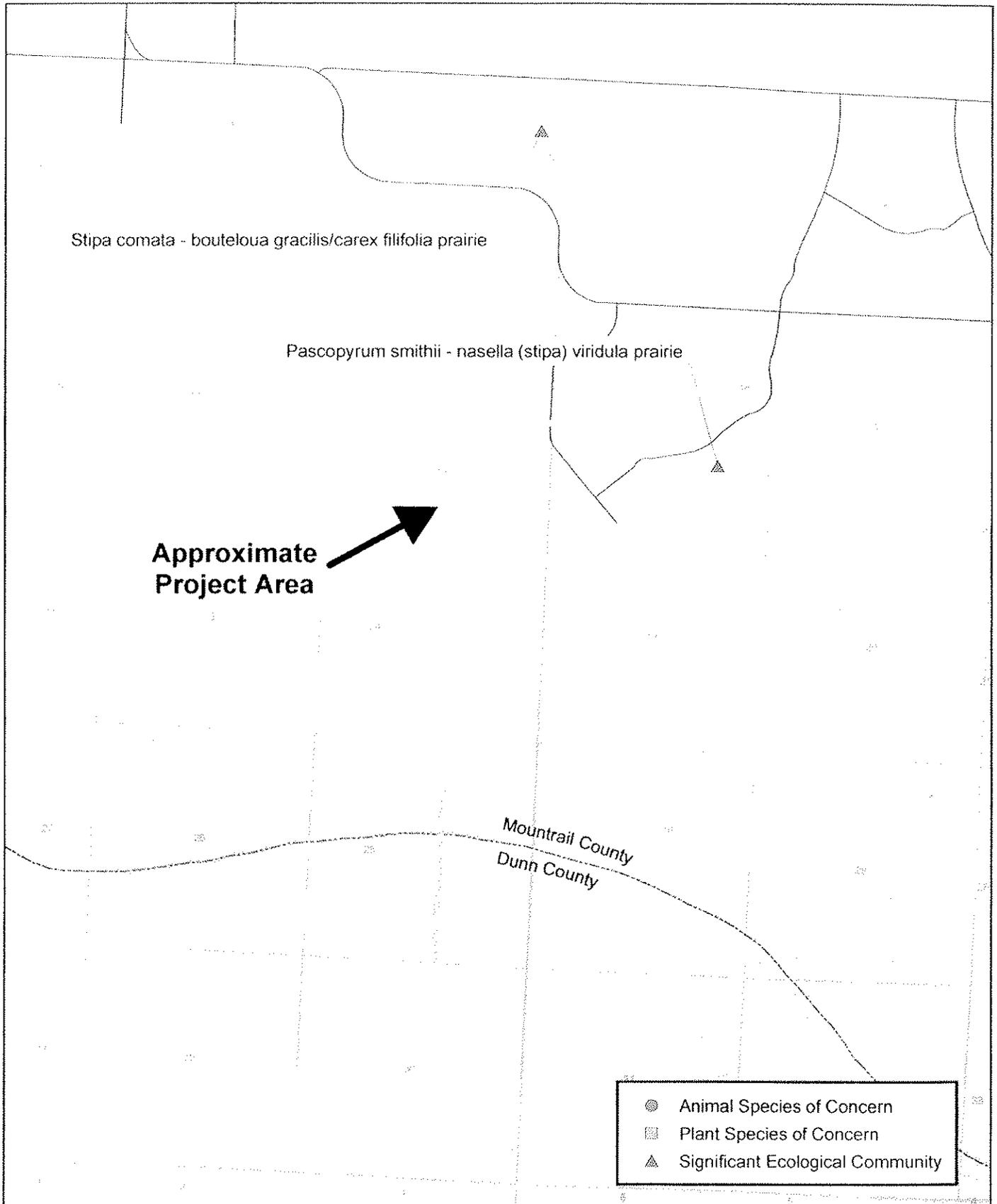
Sincerely,


Jesse Hanson, Manager
Planning and Natural Resources Division

R USNDNH*2011-236 KD11/14/2011DU.11.23.2011

.....
Play in our backyard!

North Dakota Parks and Recreation Department
North Dakota Natural Heritage Inventory



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

State Scientific Name	State Common Name	State Rank	Global Rank	Federal Status	Township Range Section	County	Last Observation	Estimated Representation Accuracy	Precision
<i>Pascopyrum smithii</i> - <i>nasella</i> (<i>stipa</i>) <i>viridula</i> prairie	Needlegrass-wheatgrass Prairie	S2	GNR		150N092W - 18; 150N092W - 07; 150N092W - 16; 150N093W - 13; 150N093W - 12; 150N093W - 24; 150N092W - 20; 150N092W - 19; 150N092W - 17; 150N092W - 08	Mountrail	1967		M
<i>Stipa comata</i> - <i>bouteloua</i> <i>gracilis</i> / <i>Carex filifolia</i> prairie	Needle-and-thread Mixed Grass Prairie	S2	GNR		150N093W - 12; 150N092W - 06; 151N092W - 31; 150N093W - 11; 150N092W - 05; 150N093W - 13; 150N092W - 08; 151N093W - 36; 150N093W - 01; 150N092W - 07; 150N093W - 02; 150N093W - 14; 150N092W - 18	Mountrail	1967		M

North Dakota Natural Heritage Inventory Biological and Conservation Data Disclaimer

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

Estimated Representation Accuracy

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

Very High (>95%)

High (>80%, <= 95%)

Medium (>20%, <= 80%)

Low (>0%, <= 20%)

Unknown

{null} - Not assessed

Precision

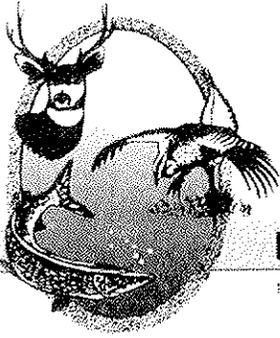
A single-letter code for the precision used to map the Element Occurrence (EO) on a U.S. Geological Survey (USGS) 7.5' (or 15') topographic quadrangle map, based on the previous Heritage methodology in which EOs were located on paper maps using obs.

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

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

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

U - Unmappable



"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 16, 2011

Ryan J. Krapp
Ecologist/GIS Specialist
Carlson McCain, Inc.
2718 Gateway Ave. Suite 101
Bismarck, ND 58503

Dear Mr. Krapp:

RE: Coyote Necklace 13-2511

Dakota-3 E&P Company, LLC is proposing one oil and gas well located on one well pad on the Fort Berthold Reservation in Mountrail County, North Dakota.

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.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Link". The signature is fluid and cursive.

Greg Link
Chief
Conservation & Communication Division

js

U.S. Department of Homeland Security
Region VIII
Denver Federal Center, Building 710
P.O. Box 35267
Denver, CO 80225-0267



FEMA

R8-Mitigation

November 7, 2011

Mr. Ryan J. Krapp
Carlson & McCain
2718 Gateway Avenue, Suite 101
Bismarck, ND 58503

Dear Ms. Lafferty:

Thank you for your inquiry regarding your proposed drilling projects on the Fort Berthold Indian Reservation. Dakota-3 E&P Company, LLC. FEMA's major concern is if the property is located within a mapped Special Flood Hazard Area any development in these areas requires further consideration.

I recommend that you contact the local Floodplain Manager for the Fort Berthold Reservation, Mr. Cliff Whitman at (701) 627-4805 to receive further guidelines regarding the impact that the project might have to the regulations and policies of the National Flood Insurance Program. Considering that floods are the most devastating of all natural disasters in this country, any efforts to reduce the impacts of that hazard is worthwhile.

Let me know if I can be of assistance and please feel free to contact me at 303-235-4721.

Sincerely,

David A. Kyner
NFIP Program Specialist

From: [Sorensen, Charles G. NWO](#)
To: [Ryan Krapp](#)
Cc: [Ames, Joel O. NWO](#)
Subject: Dakota-3 E&P Coyote Necklace well pad (UNCLASSIFIED)
Date: Tuesday, November 08, 2011 10:11:30 AM

Classification: UNCLASSIFIED
Caveats: NONE

Ryan

The U.S. Army Corps of Engineers Garrison Dam/Lake Sakakawea Project would like to thank Dakota-3 E&P Company, LLC for the opportunity to provide comments regarding the proposed Coyote Necklace well location as listed in your November 1, 2011 letter. Please provide Dakota-3 with the following recommendations and or suggestions in the exploration of the Ruby # 31-30H well

The USACE would request that Dakota-3 consider the construction/establishment of an impervious lined catch trench located on the down sloping side of the well pad. Said trench would help in containing any hazardous wastes from the well pad. Those fluids that accumulate in the trench should be pumped out and disposed of properly

To aid in the prevention of hazardous wastes from entering the aforementioned bodies of water, the USACE would strongly recommend that a Closed Loop Drilling Method be used in the handling of all drilling fluids and cuttings.

Should living quarters be established onsite it is requested that all sewage collection systems be of a closed design and all holding tanks are to be either double walled or contained in a secondary containment system. All sewage waste removed from the well site location should be disposed of properly.

That all additional fill material required for the construction of the well pad is obtained from a private supplier whose material has been certified as being free of all noxious weeds.

That prior to the drilling rig and associated equipment be placed that said equipment be either pressure washed or air blasted off Tribal lands to prevent the possible transportation of noxious or undesirable vegetation onto Tribal lands

That no surface occupancy be allowed within 1/2 mile of any known Threatened or Endangered Species critical habitat.

If possible, all construction activities should occur between August 15th and April 1st. By constructing during these dates, disruptions to wildlife during the breeding season maybe kept to a minimum.

Cumulative impacts are often overlooked, in the completion of NEPA compliance. To adequately assess cumulative impacts, the following activities should consider.

- a. Has the project area already been degraded, and if so, to what extent?
- b. Are other ongoing activities in the area causing impacts, and if so,

to what extent?

c. What is the likelihood that this project will lead to a number of associated projects?

d. What are the trends for activities and impacts in the area?

If you have any questions regarding the above recommendations please feel free to contact me

Charles Sorensen
Natural Resource Specialist
U.S. Army Corps of Engineers
Garrison Dam/Lake Sakakawea Project
Riverdale, North Dakota Office
(701) 654 7411 ext 232

Charles Sorensen
Natural Resource Specialist
U.S. Army Corps of Engineers
Garrison Dam/Lake Sakakawea Project
Riverdale, North Dakota Office
(701) 654 7411 ext 232

Classification: UNCLASSIFIED
Caveats: NONE



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 27, 2011

North Dakota Regulatory Office

Carlson McCain
Attn: Ryan J. Krapp, Ecologist
128 Soo-Line Drive
2718 Gateway Avenue, Suite 101
Bismarck, North Dakota 58503

Dear Mr. Krapp:

This is in response to your solicitation letter on behalf of **Dakota-3 E&P Company, LLC**, received on October 25, 2011 requesting Department of the Army (DA), United States Army Corps of Engineers (Corps) comments for the development of Coyote Necklace #13-25H well within the Fort Berthold Indian Reservation. The proposed well pad is located in Section 13, Township 150 North, Range 93 West, McKenzie County, 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 are the Missouri River (including 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.

Enclosed for your information is the fact sheet for Nationwide Permit 12, Utility Line Activities. Pipeline projects are already authorized by Nationwide Permit 12 **provided the utility line can be placed without any change to pre-construction contours and all other proposed construction activities and facilities are in compliance with the Nationwide's permit conditions and 401 Water Quality Certification is obtained**. Please note the pre-construction notification requirements on page 2 of the fact sheet. **If a project involves any one of the seven notification requirements, the project proponent must submit a DA application**. Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 12 and 13 of the fact sheet. [The following info is for activities on a reservation] Please be advised that the United States Environmental Protection Agency (EPA), Region 8 has denied 401 Water Quality Certification for activities in perennial drainages and wetlands. Furthermore, EPA has placed conditions on activities in ephemeral and intermittent drainages. It is recommended you contact the U.S. Environmental Protection Agency, Region 8, Attn: Brent Truskowski, 1595 Wynkoop Street, Denver, Colorado 80202-1129 to review the conditions pursuant to Section 401 of the Clean Water Act prior to any construction.

Also enclosed for your information is the fact sheet for Nationwide Permit 14, Linear Transportation Projects. Road crossings are already authorized by Nationwide Permit 14 **provided the discharge does not cause the loss of greater than ½ acre of waters of the United States per crossing and all**

other proposed construction activities are in compliance with the Nationwide's permit conditions. Please note the pre-construction notification requirements on the front page of the fact sheet. **If a project involves (1) the loss of waters of the United States exceeding 1/10 acre per crossing; or (2) there is a discharge in a special aquatic site, including wetlands, the project proponent must submit a DA application prior to the start of construction.** Please reference General Condition 27, Pre Construction Notification on page 8 of the fact sheet. Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 11 and 12 of the fact sheet. [The following is included for activities on a reservation] Enclosed is a copy of the United States Environmental Protection Agency, Region 8's: General Conditions for all Nationwide Permits and specific conditions for Nationwide Permit 14.

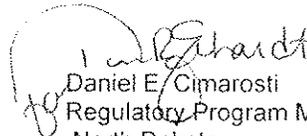
In the event your project requires approval from the U.S. Army Corps of Engineers and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit will be required. A project that requires a Standard or Individual Permit is intensely reviewed and will require the issuance of a public notice. A Standard or Individual Permit generally requires a minimum of 120 days for processing but based on the project impacts and comments received through the public notice may extend beyond 120 days.

This correspondence letter is neither authorization for the proposed construction nor confirmation that the proposed project complies with the Nationwide Permit(s).

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,


Daniel E. Cimaroni
Regulatory Program Manager
North Dakota

Enclosure
ENG Form 4345
Fact Sheet NWP 12 and 14
EPA 401 Conditions for Nationwide Permits
CF w/o encl
EPA Denver (Brent Truskowski)



STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA

Jack Dalrymple
Governor of North Dakota

November 1, 2011

North Dakota
State Historical Board

Mr. Ryan Krapp
Ecologist
Carlson McCain
2718 Gateway Avenue, Suite 101
Bismarck ND 58503

Gerold Gernholz
Valley City - President

Calvin Guinnell
New Town - Vice President

A. Rurie Todd III
Jamestown - Secretary

NDSHPO REF. 12-0104 BIA/Dakota-3 E&P Company Carlson McCain
Coyote Necklace 13-25H Well Pad and Access Located in a portion of [T150N
R93W Section 13] McKenzie County, North Dakota

Albert I. Berger
Grand Forks

Richard Kloubec
Fargo

Dear Mr. Krapp,

Diane K. Larson
Bismarck

We received your correspondence regarding NDSHPO REF. 12-0104
BIA/Dakota-3 E&P Company Carlson McCain Coyote Necklace 13-25H Well
Pad and Access Located in a portion of [T150N R93W Section 13] McKenzie
County, North Dakota. 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 for researchers.

Chester E. Nelson, Jr.
Bismarck

Sara Ote Coleman
Director
Tourism Division

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

Kelly Schmitt
State Treasurer

Alvin A. Jaeger
Secretary of State

Sincerely,

Mark Zimmerman
Director
Parks and Recreation
Department


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

Francis Ziegler
Director
Department of Transportation

Department of Transportation

Merlan E. Paaverud, Jr.
Director

c: Elgin Crows Breast, THPO MHAN
c: Brenda Shierts, BLM, Belle Fourche, SD

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November 8, 2011

Mr. Ryan J. Krapp, Ecologist
Carlson McCain
2718 Gateway Ave. Suite 101
Bismarck, ND 58503

Re: Proposed Coyote Necklace #13-25H Oil and Gas Well
Fort Berthold Reservation, Mountrail County

Dear Mr. Krapp:

This department has reviewed the information concerning the above-referenced project submitted under date of October 19, 2011, 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. Detailed guidance is available at www.ndhealth.gov/AQ/OilAndGasWells.htm.

Any questions about air pollution control or permitting requirements should be addressed to Ms. Kathleen Paser at the U.S. Environmental Protection Agency, Region 8. She may be reached at (303) 312-6526 or Paser.Kathleen@epa.gov.

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

Mr. Ryan J. Krapp

2.

November 8, 2011

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 black 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.

Notice of Availability and Appeal Rights

WPX Energy: Coyote Necklace 13-25HC Well Pad

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Environmental Assessment to Authorize Land Use for the Coyote Necklace 13-25HC Well Pad on the Fort Berthold Reservation as shown on the attached map. Construction by WPX Energy is expected to begin in 2012.

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 Earl Silk, 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 March 22, 2012, 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.

