

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

DEC 2.9 2011

MEMORANDUM

TO:

Superintendent, Fort Berthold Agency

FROM: ACTING

Regional Director, Great Plains Region

SUBJECT:

Environmental Assessment Addendum and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, an Addendum has been completed and a Finding of No Significant Impact (FONSI) has been issued. The addendum authorizes land use by Dakota-3 E&P Company, LLC (D-3), to expand the constructed Van Hook Gathering System (VHGS - Phase 1) from a single natural gas pipeline to now include oil, water gathering and water distribution pipelines, as well as underground fiber optic and electrical utilities on the Fort Berthold Indian Reservation (FBIR).

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the EA Addendum, 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)
Damien Reinhart, SWCA (with attachment)
Jonathon Shelman, Corps of Engineers
Jeff Hunt, Fort Berthold Agency

Finding of No Significant Impact

Dakota-3 E&P Company, LLC

Addendum to:

Zenergy Operating Company, LLC, Phase 1, Van Hook Gathering System, July 2010. (Right-of-Way Expansion and Reroute to the Van Hook Gathering System)

Fort Berthold Indian Reservation, North Dakota

The U.S. Bureau of Indian Affairs (BIA) has received a proposal for an addendum to the above referenced Environmental Assessment (EA). The proposal is to expand the constructed Van Hook Gathering System (VHGS - Phase 1) from a single natural gas pipeline to now include oil, water gathering and water distribution pipelines, as well as underground fiber optic and electrical utilities on the Fort Berthold Indian Reservation (FBIR). 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 addendum to an existing 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

Date

ENVIRONMENTAL ASSESSMENT Addendum

United States Bureau of Indian Affairs

Great Plains Regional Office Aberdeen, South Dakota



Dakota-3 E&P Company, LLC

Addendum to Environmental Assessment(s) to Authorize Right-of-Way Expansion and Reroute to the Van Hook Gathering System (Central)

Fort Berthold Indian Reservation

December 2011

For information contact:
Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resources Management
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(605) 226-7656

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Appendices

Appendix A - VHGS Right-of-Way Construction Typicals

1.0 Purpose and Need of Action

Dakota-3 E&P Company, LLC (D-3), a subsidiary of Williams, is proposing to expand the constructed Van Hook Gathering System (VHGS - Phase 1) from a single natural gas pipeline to now include oil, water gathering and water distribution pipelines, as well as underground fiber optic and electrical utilities on the Fort Berthold Indian Reservation (FBIR). Developments have been proposed across land held in trust by the United States in Mountrail County, North Dakota. The Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The economic development of available resources and associated BIA actions are consistent with BIA's general mission. Leasing and development of mineral resources offers substantial economic benefits to the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nations and to individual tribal members.

The totality of the VHGS has been evaluated in multiple environmental assessments' (EA's). The VHGS will be organized and addressed as three core areas: Central, East, and West (Figure 1). This document will amend the following EA's and Addendums of the Central VHGS area:

- 1) EA: Zenergy Operating Company, LLC, Phase 1, Van Hook Gathering System;
- Addendum to EA to Authorize an Alternative Pipeline Route for the Van Hook Gathering System: Zenergy Operating Company, LLC, Phase 1, Van Hook Gathering System;
- 3) EA: Zenergy Operating Company, LLC, Van Hook Trunkline to FBIR #13-24H, Phase 1, Van Hook Gathering System.

2.0 Authorities

Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 United States Code [USC] 396a, et seq.), the Indian Mineral Development Act of 1982 (25 USC 2101, et seq.), and the Energy Policy Act of 2005 (42 USC 15801, et seq.).

3.0 Legal Land Descriptions of Proposed Action

The Central VHGS traverses Fee and Tribal allotted lands located on the Sanish Peninsula of the FBIR in Mountrail County, North Dakota. Tribal allotted lands affected by proposed action are located in Sections 1-3, 10-12 and 13-16; Township 150 North, Range 92 West.

4.0 Scope of Work for Proposed Action

Phase 1 of the VHGS included approximately ten-miles of 8 inch in diameter trunk lines and 2-miles of 3 inch diameter lines for well lateral connections of natural gas pipeline connecting exiting D-3 well sites to a central delivery point (CDP) on fee lands. Phase 2 of the VHGS is to include installation of an oil gathering pipeline along with produced water and fresh water pipelines in the same right-of-way (ROW). Freshwater is proposed to be delivered by

connection to the Tribal rural water system as it is crossed at multiple locations along the route. Connections will be made at ROW overlaps with no additional disturbance outside of evaluated area. Utilities, including electrical and fiber optic, will also be installed underground within the ROW. Initial ROW for Phase 1 was obtained at 100-foot for temporary construction with a 50-foot permanent ROW. It was determined that an additional 30 feet temporary ROW is needed on one side of the established ROW to complete Phase 2 of the VHGS. The 130-foot temporary ROW will be purchased and retained by D-3 for use as a permanent 130-foot ROW. Therefore an expanded ROW of 130-feet is being re-evaluated on Tribal allotted lands in the Central VHGS area for purposes of this document (Figure 2). The length of the route across Tribal allotted lands is approximately 6.47 miles for a total of 23.5 acres additional disturbance.

5.0 Resources Surveys

The proposed route expansion was "soft" staked and was reviewed for additional consideration of topography, natural drainage and erosion control, flora, fauna, habitat, 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, as discussed below. D-3 retained Carlson McCain as the lead for the natural resource evaluation and environmental assessment preparation with SWCA Environmental Consultants (SWCA) conducting the cultural resource inventory, consisting of an archaeological Class I literature search and a Class III intensive cultural resources inventory, for the Central VHGS (Moret-Ferguson 2011).

5.1 Cultural Resource Surveys

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 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 of this gathering pipeline system was conducted by personnel of Environmental Consultants, using an intensive pedestrian Approximately 422.8 acres were inventoried between August 17 and November 5, 2011 (Moret-Ferguson et al. 2011). Three previously recorded archaeological sites were revisited and four newly recorded sites were located, of which five may 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, as the potentially eligible sites will be avoided through project redesign and/or fenced out and This determination was communicated to the THPO on November 28, 2011; however, the THPO did not respond within the allotted 30 day comment period.

5.2 Natural Resource Surveys

Carlson-McCain conducted the natural resource re-evaluation along an approximate 300-foot-wide survey corridor along the approximate 6.47 miles of route at the EA on-site visits. The on-site visit was performed on the reroute of the Elk #16-21H to the Van Hook Trunk Line on June 6, 2011. Additional on-sites were held August 17th and 29th, 2011 to evaluate the main line route past and the laterals connecting to the Mason #2-11H and the Olson #1-12H pads along with the Van Hook Trunkline to FBIR #13-24H.

The proposed expanded ROW follows the previously approved and installed natural gas pipeline (VHGS-Phase 1) except in one area. A portion of the original proposed pipeline route was not constructed due to landowner dispute in Section 16, T150N, R92W. A reroute from the Elk #16-21H to the Van Hook Trunk Line to the north side of BIA 6 was therefore evaluated on June 6, 2011 for avoidance and is further discussed below.

Little Shell Creek is situated due north of the Elk #16-21H pad across BIA 6 and a dam on the creek provided little room for pipeline and utility installation while maintaining a 75-foot buffer from the delineated wetland/creek edge. Mitigation options were discussed and it was decided that a directional drill originating from the west side of the Elk #16-21H pad to the northeast under BIA 6 and Little Shell Creek Dam to the high plateau to the east would be the best option for installation (Figure 3). The route continues east over the rolling native prairie pasture, routed to avoid sensitive cultural resource areas as it nears a rural water pipeline and a private driveway. The driveway and a waterline will be directionally drilled. The route continues east and approaches a tributary of Little Shell Creek that contained standing water and wetland vegetation (Figure 4). The drainage will be directionally drilled as well as the green ash (Fraxinus pennsylvanica) tree planting on the edge of the planted grass field at top of drainage slope. The route turns south with a directional drill under BIA 6 and a rural water pipeline where it will connect to the original proposed alignment heading east.

All original natural resource considerations, mitigation and commitments outlined in original EA were discussed at on-site(s) and will be strictly adhered to. Specific mitigation requirements such as pre-determined ROW access points, directional drilling and 24-hr open cut locations and all standard BMP's such as installing silt fences and erosion fabric, mats or logs on slopes; construction of ditches and/or water bars on steep slopes; and seeding, planting, and mulching and mixing during interim reclamation of ROW will be carried out.

As in original EA all isolated wetlands were avoided, perennial and intermittent streams were delineated and identified to be directional drilled and ephemeral drains were either directed to be directional drilled or limited to a 24-hr open-cut construction practice.

A ground survey for cliff, tree, and ground raptor nests was conducted within ½ mile of the proposed project ROW expansion during the on-site reviews. No raptors or nests were observed during the on-site review. The ROW was also traversed to identify the presence of migratory bird species as well as nests located within the ROW. No nests were found within the ROW. Surface disturbance and installation of the multiple pipelines and buried utilities is anticipated to be done all at once and is anticipated to take place during the winter months. If portions of the pipeline 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 5-days of construction surface disturbance. No additional T&E species effects were found during the expansion assessments that were not originally addressed in EA's.

The additional pipeline construction may have a net reduced effect on migratory bird and raptor incidental take due to reduced truck traffic in the project area over the life of the oil field.

6.0 System Design

All pipelines and underground utilities will be installed within the expanded 130-foot right-of-way. Right-of-way construction typicals are provided in Appendix A. The natural gas pipelines are polyethylene, 8 inch in diameter for trunk lines and 3 inch in diameter for well lateral connections. The proposed oil pipelines will be constructed of 8-10 inch diameter welded steel for trunk lines and 6-8 inch diameter for well lateral connections. Produced water pipelines will consist of 4-8 inches in diameter polyethylene pipe. Fresh water delivery pipelines will also be polyethylene pipe, 4-6 inches in diameter. Electrical and fiber optic utilities are planned to be installed underground at time of pipeline installation. If utilities are not able to be installed at that time they may be buried at a later date by utilizing the spider-plow method. Spider-plowing has very minimal impact to the ground surface and will be within the previously disturbed surface.

The original route of the installed Phase 1 of the VHGS will be followed. The proposed ROW expansion area (additional 30-feet) was re-evaluated for cultural and natural resource effects along this route on all tribal allotted lands. The 30-foot extension of the ROW will be added to one side or the other of the initial 100-foot temporary ROW (previously disturbed surface area). the extension was dependent upon connections to well pads and natural and cultural resource sensitive avoidance areas. The ROW width in areas was reduced to maintain required setbacks from culturally sensitive areas.

7.0 Construction Procedures

Construction procedures were detailed with the original EA's. Additional information not originally included within or any change of procedures is outlined below.

Natural gas and oil pipelines will either be installed in the same trench or in a separate trench if they were installed in separate phases. Produced water and fresh water pipelines will be installed in the same trench. Trenches will be approximately 2.5 feet wide and will be placed 10-15 feet apart. All pipelines are installed at a minimum depth of six feet except as needed at road and stream crossings or as needed for safety considerations. Electrical and fiber optic utilities will be installed underground at the same time or at a later date by utilizing the spider-plow method. The pipelines and utilities will all be installed within the same 130-foot permanent right-of-way (Appendix A).

The pipelines will be designed, assembled, and installed in accordance with U.S. Department of Transportation (DOT) regulations (DOT Title 49 CFR Parts 195 and 192) and other standards as applicable.

Pipeline materials will be staged at storage areas located on Fee lands to the west and the north of the project area, at existing oil/gas well sites along the route and/or trucked directly to the construction ROW (Figure 5). County, state, private, BIA roads and field approaches used to access the ROW during Phase 2 construction will be maintained in the same or better

condition as existed prior to the start of the operations. The access roads and field approaches to the pipeline ROW depicted in Figure 5 were surveyed and cleared for use at the on-site visits. No new roads will be constructed for the installation of these pipelines. Off-road driving, other than within the ROW, will be strictly prohibited. Signs may be installed on approved access roads and will be used to identify roads where access is prohibited. Excessive rutting or other surface disturbing activities will be avoided or immediately repaired.

Directional drilling locations as determined at on-site investigations are identified in Table 1 and displayed in Figure 6. Locations of directional drilling pits were discussed on on-site in relation to topography and required setbacks. The setbacks will be displayed in the construction design plats. All BMP's will be employed to ensure minimal disturbance at all stream crossings.

Table 1. Directional Drill Locations on Tribal Allotted Lands

| Location (T150N, R92W) | Feature |
|----------------------------|-------------------------------------|
| NW 1/4, NW 1/4, Section 3 | Gravel Section Road |
| NW 1/4, NW, 1/4, Section 3 | Private Drive |
| SW 1/4, SW 1/4, Section 3 | Gravel Section Road |
| SE ¼, SE ¼, Section 9 | Waterline and Private Drive |
| NW 1/4, NW 1/4, Section 15 | BIA 6 |
| NE ¼, NE ¼, Section 16 | Private Drive, Waterline & Drainage |
| NE ¼, NE ¼, Section 16 | BIA 6 |
| SE 1/4, SE 1/4, Section 9 | Tributary of Little Shell Creek |
| SW ¼, SE ¼, Section 9 | Waterline and Private Drive |
| SW 1/4, SW 1/4, Section 9 | Little Shell Creek Dam and BIA6 |
| SE 1/4, SE 1/4, Section 10 | Tributary of Lake Sakakawea |
| SE 1/4, SW 1/4, Section 11 | BIA 6 |
| SW 1/4, SE 1/4, Section 11 | Waterline and Private Drive |
| SE 1/4, SE 1/4, Section 11 | BIA 6 |
| NE ¼, NE ¼, Section 2 | BIA 6 |

8.0 Interim Reclamation

Reclamation will be continuous throughout the gathering systems lifespan. Reclamation is required within 6-months after the initial construction, after any maintenance work or addition of auxiliary infrastructure, and before final abandonment of the decommissioned system. Successful reclamation will remain the obligation and responsibility of the system operator.

Trenches will be backfilled immediately after pipe 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) and may include:

- 1) installing silt fences and 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 right-of-way. 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, trench breakers or 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 D-3.

Re-contouring and reclamation of disturbed areas will be accomplished within 6-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 on non-tilled land will be reseeded 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.

9.0 Final Reclamation

Decommissioning of the pipeline will result in mandatory final reclamation of the ROW. All facilities would be removed. All disturbed areas would be reclaimed, reflecting the BIA's view of oil and gas exploration and production as temporary intrusions on the landscape. 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.

10.0 Operations and Maintenance

Maintenance of pipelines and underground utilities will be confined to the 130-foot permanent ROW. Annual surveys of the pipeline system will be conducted to assure the pipeline integrity and cathodic protection system is functioning adequately. In the likely event of corrosion detection or leak, replacement of system sections may be required. Loss of products or waste products may require excavation of contaminated soils and other remedial projects. Applicable regulations, including immediately notifying BIA and BMP's, will be implemented aggressively to minimize waste of resources and environmental damage.

11.0 Spill Response Plan

D-3 has developed an Emergency Spill Contingency Plan (Plan) for the VHGS (D-3, 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 D-3 remains the operator. A copy of the Plan has been filed with the BIA and D-3 has legally committed to adhering to the procedures and requirements as defined by federal law (Title 49 Code of Federal Regulations [CFR] 194).

12.0 Pipeline Marking Procedures

D-3 will adhere to the requirements of 49 CFR 192.707 with regard to the marking of buried pipelines. Specifically, D-3 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.

13.0 Quality Control/Quality Assurance Measures

D-3 would purchase steel pipe that is rated as API 5L X-42/52 and would inspect all pipe while at the mill to ensure quality. D-3 would ensure that external epoxy coating is applied to a minimum thickness of 14 millimeters. During construction, all welds are 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 pressurized air 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 surveys of the pipeline system will be conducted to assure the pipeline integrity and cathodic protection system is still functioning adequately.

14.0 Valve Locations

Above ground isolation valves will be constructed on each well pad site and at intervals of approximately 1-1.5 miles on new oil, gas and produced water pipelines (Figure 7). Foremost this will allow for sections to be isolated to minimize potential for large spills and also for repair or service of the lines. The line valve placement is determined by permanent ROW accessibility and ability to quickly access to shutdown during winter months.

15.0 Applicable National Environmental Policy Act (NEPA) Document(s)

Environmental Assessment: Zenergy Operating Company, LLC, Phase 1, Van Hook Gathering System, July 2010. Finding of No Significant Impact: Zenergy Operating Company, LLC, Phase 1, Van Hook Gathering System. Issued July 30, 2010.

Addendum to Environmental Assessment to Authorize an Alternative Pipeline Route for the Van Hook Gathering System: Zenergy Operating Company, LLC, Phase 1, Van Hook Gathering System, August, 2010. Finding of No Significant Impact: Zenergy Operating Company, LLC, Addendum to Environmental Assessment to Authorize an Alternative Pipeline Route for the Phase 1 Van Hook Gathering System. Issued September 27, 2010.

Environmental Assessment: Zenergy Operating Company, LLC, Van Hook Trunkline to FBIR #13-24H, Phase 1 - Van Hook Gathering System. December 2010. Finding of No Significant Impact: Zenergy Operating Company, LLC, Van Hook Trunkline to FBIR #13-24H, Phase 1 - Van Hook Gathering System. Issued December 16, 2010.

16.0 Other Relevant Documentation

Celia Moret-Ferguson, Damien S. Reinhart, Chandler S. Herson, and Angela Meno. 2011.

A Class I and Class III Cultural Resource Inventory for the Central Van Hook Gathering System, Fort Berthold Indian Reservation, Mountrail County, North Dakota. SWCA Environmental Consultants, Bismarck. Report submittal to BIA: November 14, 2011.

D-3, 2011. Van Hook Gathering System - Emergency Spill Contingency Plan. Prepared by Dakota-3 E&P Company, LLC (a subsidiary of Williams). 1801 Burdick Expressway West, Minot, ND 58701. November, 2011.

17.0 NEPA Adequacy Criteria

This document has identified a previously prepared NEPA document(s), Environmental Assessment: Zenergy Operating Company, LLC, Phase 1, Van Hook Gathering System; Addendum to Environmental Assessment to Authorize an Alternative Pipeline Route for the Van Hook Gathering System: Zenergy Operating Company, LLC, Phase 1, Van Hook Gathering System and the Environmental Assessment: Zenergy Operating Company, LLC, Van Hook Trunkline to FBIR #13-24H, Phase 1 - Van Hook Gathering System., which adequately describes the environmental consequences of the newly proposed action described herein, and meets the following NEPA Adequacy Criteria.

- 1. The proposed action is substantially the same action and at the site specifically analyzed in the existing NEPA document.
- The range of alternatives is reasonable with respect to the current proposed action in the existing NEPA document, which appropriately considers and analyzes current environmental concerns, interests, and resource values.
- 3. The existing analysis and conclusions are adequate in the existing NEPA document. The analysis is still valid in light of new studies or resource assessment information.
- 4. The methodology and analytical approach used in the existing NEPA document continues to be appropriate for the proposed action.
- 5. The direct and indirect impacts of the proposed action are unchanged from those identified in the existing NEPA document.
- 6. The cumulative impacts that would result from implementation of the proposed action are unchanged from those analyzed in the existing NEPA document.
- 7. A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA document.

Figure 1. Van Hook Gathering System (VHGS) – Overview

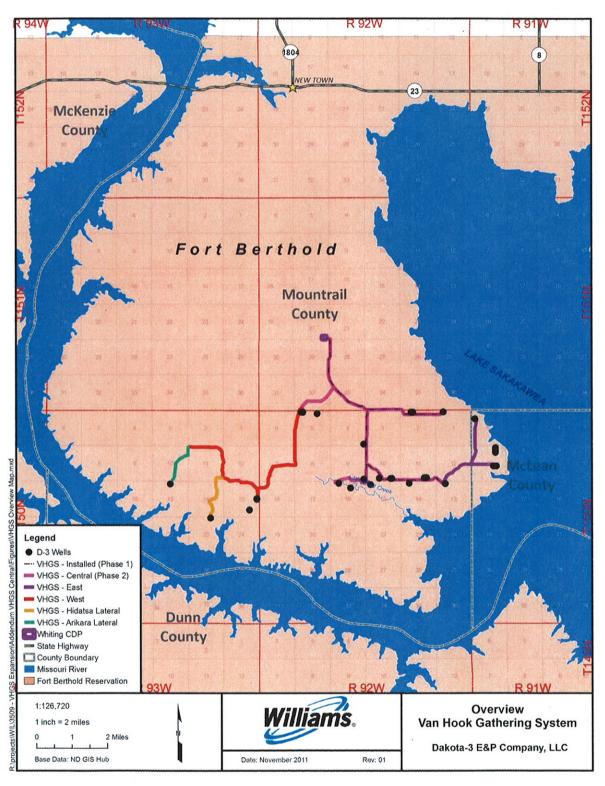


Figure 2. Surface Ownership Map

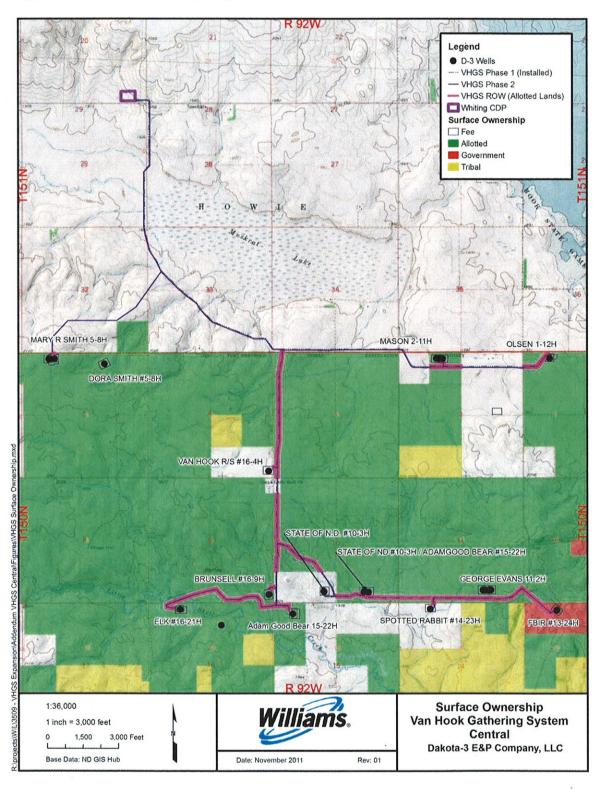


Figure 3. Photograph of Little Shell Creek Dam looking southwest along

directional drill route back on Elk 16-21H pad.

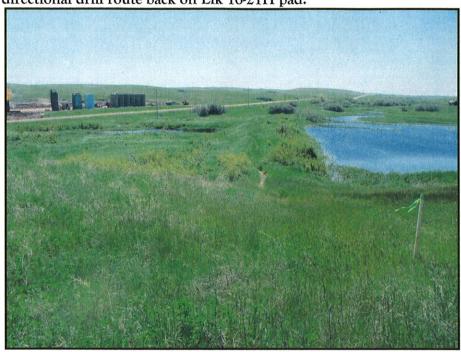


Figure 4. Photograph of Little Shell Creek tributary in SW1/4 Sec 9, T150N, 92W to be directionally drilled under.



Figure 5. Central VHGS - Cleared ROW Access Roads

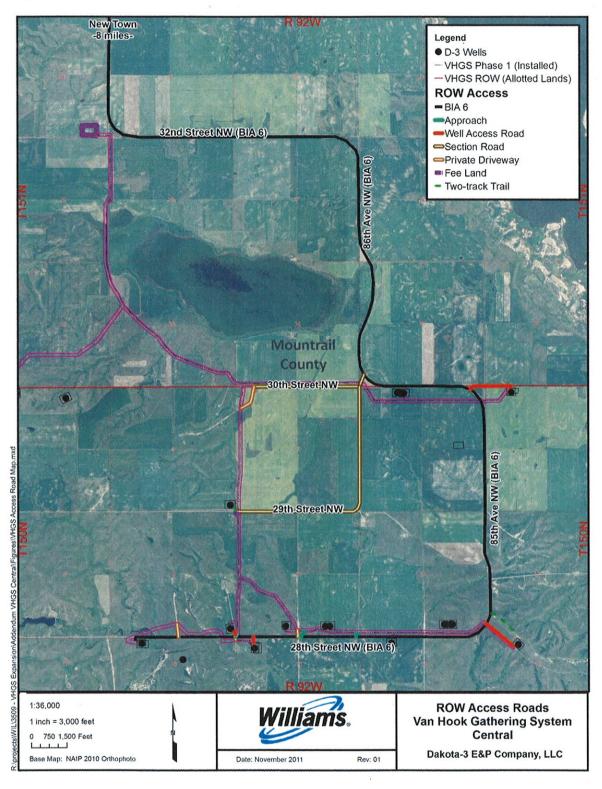


Figure 6. Central VHGS - Directional Drilling

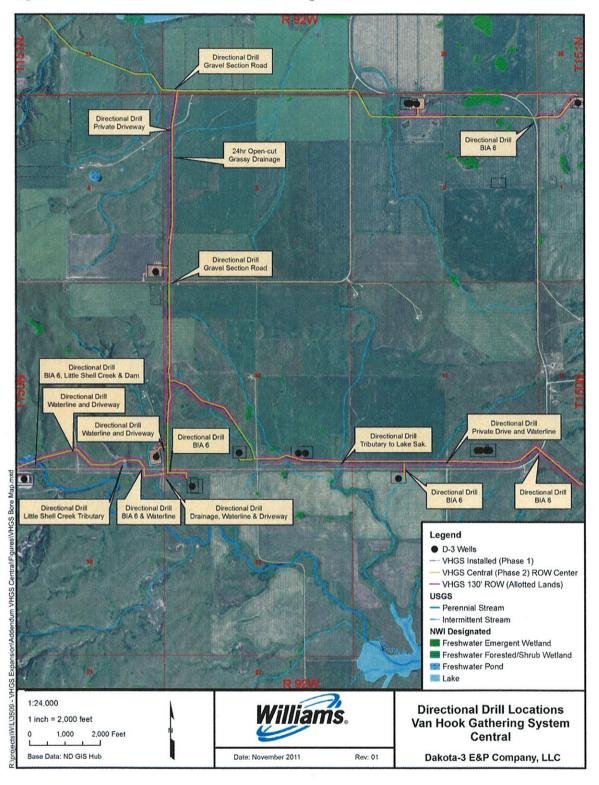
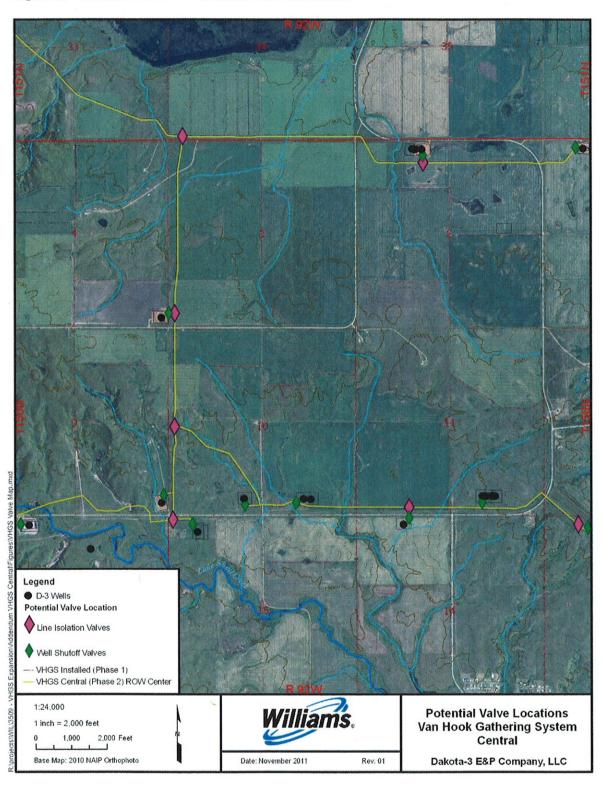


Figure 7. Central VHGS - Potential Valve Locations





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

NOV 28 2011

Elgin Crows Breast, THPO Mandau, Hidatsa and Arikara Nation 404 Frontage Road New Town, North Dakota 58763

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of a gathering pipeline system in Mountrail County, North Dakota. Approximately 422.8 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. Three previously recorded archaeological sites (32MN808, 32MN809, 32MN885) were revisited and four sites (32MN902, 32MN903, 32MN904, 32MN905) were newly located. Of these, sites 32MN808 and 32MN904 do not appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. The other sites may be eligible for the National Register. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have reached a determination of **no historic properties affected** for this undertaking, as sites 32MN885, 32MN902 and 32MN903 will be avoided through project redesign and sites 32MN809 and 32MN905 should be fenced out and avoided. Catalogued as **BIA Case Number AAO-2024/FB/12**, the proposed undertaking, location, and project dimensions are described in the following report:

Moret-Ferguson, Celia, Damien S. Reinhart, Chandler S. Herson, and Angela Meno (2011) A Class I and Class III Cultural Resource Inventory for the Central Van Hook Gathering System, Fort Berthold Indian Reservation, Mountrail County, North Dakota. SWCA Environmental Consultants for Dakota-3 E&P Company, LLC, Denver.

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

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

Enclosure

cc:

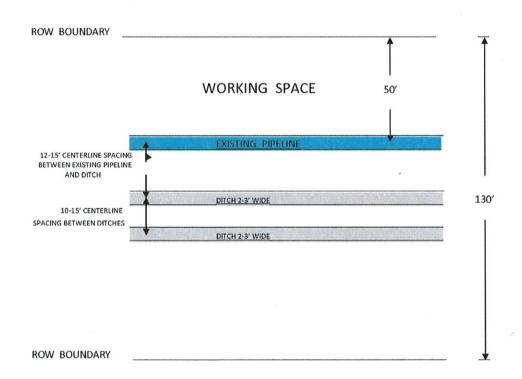
Chairman, Three Affiliated Tribes Superintendent, Fort Berthold Agency

APPENDIX A

VHGS Right-of-Way Construction Typicals

RIGHT-OF-WAY TYPICAL

PROPOSED VAN HOOK GATHERING NO ACCESS ROAD WITH EXISTING PIPELINE



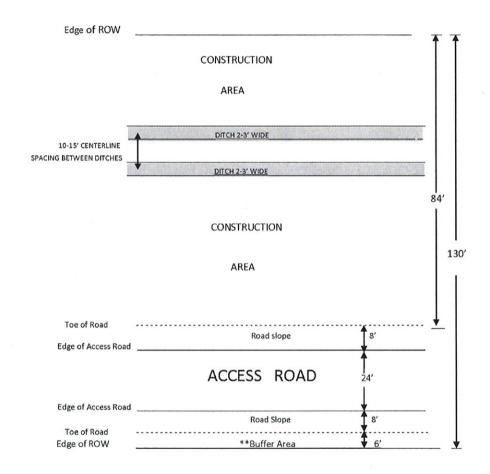
RIGHT-OF-WAY TYPICAL

PROPOSED VAN HOOK GATHERING

| | NO ACCESS ROAD NO EXISTING PIPELINE | |
|---|-------------------------------------|----------|
| ROW BOUNDARY | | <u></u> |
| | WORKING SPACE | |
| 10-15' SPACING BETWEEN DITCHES C/L to C/L | DITCH 2-3' WIDE | 130′ |
| | WORKING SPACE | |
| ROW BOUNDARY | | <u> </u> |
| | | |
| | | |

RIGHT-OF-WAY TYPICAL

PROPOSED VAN HOOK GATHERING WITH ACCESS ROAD



NOTE: Placement of pipelines within the construction area is contingent upon line sizes and product.

This layout assumes minimal width elevation change; when cuts are greater, additional road slope area will be required.

This Typical is not drawn to scale.

^{**}Buffer area allows for erosion control measures, plowed snow accumulation, and possible electrical installation.

Notice of Availability and Appeal Rights

Dakota-3 E&P: Addendum to Environmental Assessment(s) to Authorize
Right-of-Way Expansion and Reroute to the
Van Hook Gathering System (Central)

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Addendum to Environmental Assessment to Authorize Right-of-Way Expansion and Reroute to the Van Hook Gathering System (Central)on the Fort Berthold Reservation as shown on the attached map. Construction by Dakota-3 E&P Resources 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 January 28, 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.

