



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

JUN 05 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 has been completed and a Finding of No Significant Impact (FONSI) has been issued. The EA authorizes land use for the construction of the Arrow Station #4, Phase 2SE Compressor and Pump Station on the existing Phase 1B Prime pipeline system 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)
Mike Cook, SWCA (with attachment)
Jonathon Shelman, Corps of Engineers
Jeff Hunt, Fort Berthold Agency

Finding of No Significant Impact

Arrow Pipeline, L.L.C.

Addendum to Environmental Assessment to Authorize Land Use for the Construction of the Arrow Station #4: Phase 2SE Compressor and Pump Station on the Existing Phase 1B Prime Pipeline System

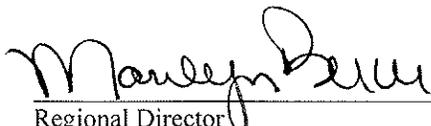
***Fort Berthold Indian Reservation
Dunn County, North Dakota***

The U.S. Bureau of Indian Affairs (BIA) has received a proposal for an addendum for the construction of the Arrow Station #4: Phase 2SE Compressor and Pump Station on the Fort Berthold Reservation in North Dakota. The proposed station would be located approximately 7.4 miles southeast of Mandaree, North Dakota, in the NW¼ SW¼ of Section 4, Township (T) 148 North (N), Range (R) 93 West (W), Dunn 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 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

6/5/12
Date

**ENVIRONMENTAL ASSESSMENT
Addendum**

United States Bureau of Indian Affairs

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



Arrow Pipeline, LLC

**Addendum to Environmental Assessment to Authorize Land Use for the Construction of
the Arrow Station #4: Phase 2SE Compressor and Pump Station on the Existing Phase
1B Prime Pipeline System**

Fort Berthold Indian Reservation

June 2012

For information contact:
Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resources Management
115 4th Avenue SE, Aberdeen, South Dakota 57401
(605) 226-7656

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A Right-of-Way for Arrow Station #4: Phase 2SE Compressor and Pump Station
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1. Purpose and Need for the Proposed Action

The purpose of the proposed action is to authorize land use by Arrow Pipeline, LLC (Arrow) for the construction of the Arrow Station #4: Phase 2SE Compressor and Pump Station (station). The station would support existing Arrow pipeline systems and associated lateral pipelines on the Fort Berthold Indian Reservation by compressing natural gas and pumping crude oil. The station would subsequently facilitate the transport of increasing natural gas and crude oil volumes to market. This development has been proposed on land held in trust by the United States in Dunn County, North Dakota.

The Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The BIA also holds title to subsurface mineral rights. 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 Nation and to individual tribal members.

2. 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. Legal Land Description for Proposed Action

The proposed station would be located approximately 7.4 miles southeast of Mandaree, North Dakota, in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 4, Township (T) 148 North (N), Range (R) 93 West (W), Dunn County, North Dakota.

4. Scope of Work for Proposed Action

Arrow has proposed to construct the station in order to compress and propel gathered natural gas and pump crude oil to market. In total, construction of the proposed station would impact approximately 6.64 acres. Arrow would install one 740-horsepower (HP) gas-driven generator at the station. Additional above ground equipment that would be installed at the station includes: one 96-inch (outside diameter) Inlet Slug Catcher; a filter separator; two 1,000-bbl storage tanks, two 400-bbl water tanks, a header system for suction and discharge piping; a pig launcher, and pig receiver.

Compression would be powered by two 1,780 horsepower (HP) Waukesha/Frick gas-driven engines that run continuously on collected natural gas and monitored through the use of a Supervisory Control and Data Acquisition (SCADA) system, as well as daily visits by Arrow personnel. Natural gas temperatures would be reduced through the use of air coolers.

5. Resource Surveys

SWCA Environmental Consultants (SWCA) conducted natural resource surveys for threatened and endangered species habitat, migratory bird nesting habitat, bald and golden eagle nests, and wetlands/waterbodies on December 29, 2011. BIA Environmental Specialist Chris McLaughlin was present at the proposed location and determined that, as proposed, the project minimize the impact to sensitive resources to the extent practicable. The area surrounding the proposed station may act as suitable nesting habitat for two candidate species, Dakota skipper (*Hesperia dacotae*) and sprauge's pipit (*Anthus spragueii*). No Bald/Golden Eagles or nests were observed during the natural resource surveys; however, habitat for bald/golden eagles was observed within one half mile of the proposed project area. Also, migratory bird nesting habitat is prevalent within the project area. If construction is to occur during the migratory bird breeding season (February 1 – July 15), Arrow is committed to conducting an avian survey no greater than five days before construction begins. If active nests are discovered, Arrow will notify BIA and USFWS.

Secondary indicators of wildlife observed during natural resource surveys included black tailed prairie dog (*Cynomys ludovicianus*), vole species (*Microtus Sp*), North American coyote (*Canis latrans*), and American badger (*Taxidea taxus*). Herbaceous upland plant species observed within the project area included blue grama (*Bouteloua gracilis*), little bluestem (*Schizachyrium scoparium*), Kentucky bluegrass (*Poa pratensis*), western wheatgrass (*Pascopyrum smithii*), yellow coneflower (*Ratibida columnifera*), purple coneflower (*Echinacea angustifolia*), curlycup gumweed (*Grindelia squarrosa*), and western snowberry (*Symphoricarpos occidentalis*).

A cultural resource inventory of this compressor station site was conducted by personnel of SWCA Environmental Consultants, using an intensive pedestrian methodology. Approximately 24.54 acres were inventoried on December 29, 2011 (Leroy et al. 2012). One archaeological site was revisited that 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 archaeological site will be fenced out and avoided. This determination was communicated to the THPO on April 23, 2012; however the THPO did not respond within the allotted 30 day comment period.

Leroy, Adam, Cole Wandler and Carolyn Riordan

(2012) A Class I and Class III Cultural Resource Inventory of the Arrow Station #4: Phase 2SE Compressor Station, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

6. Quality Control/Quality Assurance Measures

Arrow purchases steel pipe that is rated as API 5L X52 and inspects all pipe while at the mill to ensure quality. Arrow is also present to 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 100 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 hydrotested to approximately 1.5 times the minimum design pressure of 1,180 pounds per square inch gauge (psig). The produced water pipe is designed to sustain a minimum pressure of 750 psig and is hydrotested to approximately 900 psig prior to being approved for service. Arrow will utilize a SCADA system to remotely monitor conditions at the station and will use a qualified individual to conduct a once daily check of conditions throughout the life of the facility.

7. Potential Effects

Potential direct impacts to cultural resource sites would occur as a result of disturbance and/or the loss of sites eligible for the National Register of Historic Places. However, no cultural resources were recorded within the surveyed area.

Potential direct impacts to natural resources may include the loss of native vegetation and wildlife habitat, soil disturbance, and erosion during construction that may adversely affect air and water quality. Impacts would be mitigated by using best management practices during construction to minimize disturbance. Once construction activities are completed, reclamation would take place and would include the return of topsoil and contouring, and seeding of native vegetation. Arrow commits to beginning the reclamation process no later than 6 months after construction activities are completed.

Potential indirect impacts include noise and other disturbances to wildlife during construction and the introduction of noxious weeds. Impacts would be mitigated by avoiding any federally listed threatened or endangered species or wetlands, avoiding of nesting migratory birds, implementing best management practices to control the introduction of noxious weeds, and minimizing the length of time between trenching, pipeline burial, and reclamation. These mitigation measures are consistent with the approved National Environmental Policy Act (NEPA) document, which received a finding of no significant impact (November 2009).

8. Reclamation

Interim Reclamation

Reclamation would continue over the life of the station and would include the return of topsoil, and contouring and seeding of native vegetation. Initial reclamation would be required 6 months after construction, if environmentally feasible, and then following any maintenance work or additions of infrastructure. Reclamation would be required before final abandonment of the decommissioned compressor station. A successful reclamation would at all times be the responsibility of the operator.

Applicable short- and long-term best management practices would be used to minimize and control erosion in disturbed areas. To reduce compaction, the station would be plowed before the stockpiled topsoil is distributed.

The disturbed areas would be reclaimed and contoured as soon as possible after construction is complete (fall/spring). The disturbed area outside of the working station would be covered with stockpiled topsoil and seeded with a seed mixture determined by the BIA. Arrow would control noxious weeds within the ROW and other applicable facilities by approved chemical or mechanical methods. If seeding of the ROW does not occur due to growing season constraints, Arrow would deploy approved weed-free hay across the entire ROW. The presence of hay across the ROW would reduce the potential for excessive erosion as a result of spring snow melt and precipitation.

The entire ROW would be monitored for erosion, subsidence, and noxious weeds. In areas where problems are found to occur, reclamation efforts would continue until the BIA feels the ROW is successfully reclaimed. Reclamation is considered successful when:

- seeded areas are established;
- adjacent vegetative communities spread back into the disturbed areas; and
- noxious weeds are under control.

If after two growing seasons the new seeding is not successful, the BIA may require additional efforts to establish vegetation. For noxious weeds, a survey was conducted on the access road ROW and compressor station, prior to the construction commencing. The BIA has developed a weed management plan to treat known or likely to occur noxious weed species.

Final Reclamation

Final reclamation would occur when the station is decommissioned. All disturbed areas would be reclaimed, reflecting the BIA's view of oil and gas exploration and production as temporary intrusions on the landscape. All facilities would be removed. Access roads and work areas would be leveled or backfilled as necessary, scarified, recontoured, and seeded.

9. Additional Station Specific Commitments

- As of May 2012, Arrow has not finalized the master station layout but has committed to keep all disturbance within the exterior boundary of the station as proposed and depicted in Figure 1 and shown in Appendix A. Arrow will provide a detailed drawing showing the location of all station components to the BIA prior to the commencement of ground disturbing activities.
- As of May 2012, Arrow is developing a permit to satisfy the requirements of the U.S. Environmental Protection Agency (EPA) Federal Minor New Source Review rule, codified in 40 CFR 49.151. As required by the EPA, construction of new equipment that will introduce regulated emissions would be restricted until Arrow has acquired authorization to proceed from the EPA. As such, Arrow has committed to submitting

the requisite authorization to the BIA prior to constructing any new sources of regulated emissions as required by the EPA.

10. Applicable NEPA Document

Environmental Assessment: Arrow Pipeline Phase 1B Prime Pipeline (September 2010).

11. NEPA Adequacy Criteria

This document has identified the above-mentioned previously prepared NEPA document, 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.
2. 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.

Addendum to Environmental Assessment to Authorize Land Use for the Construction of the Arrow Station #4: Phase 2SE Compressor and Pump Station on the Existing Phase 1B Prime Pipeline System (June 2012)

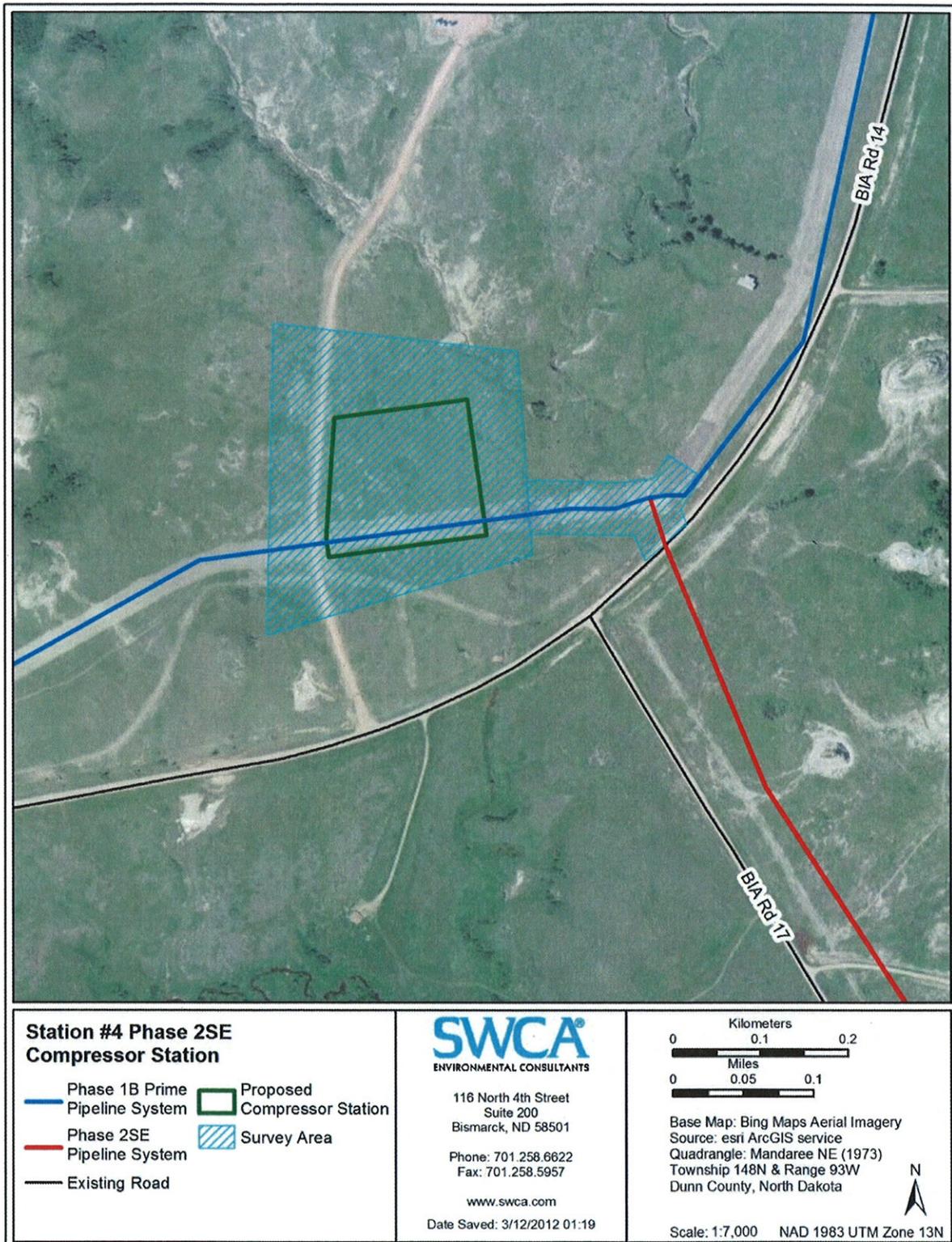


Figure 1. Proposed Arrow Station #4: Phase 2SE Station location.

Addendum to Environmental Assessment to Authorize Land Use for the Construction of the Arrow Station #4: Phase 2SE Compressor and Pump Station on the Existing Phase 1B Prime Pipeline System (June 2012)



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

APR 23 2012

Elgin Crows Breast, THPO
Mandan, 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 proposed compressor station and ancillary facilities in Dunn County, North Dakota. Approximately 24.54 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. One archaeological site (32DU1382) was revisited that may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for this undertaking, as the archaeological site will be fenced out and avoided. Catalogued as **BIA Case Number AAO-2059/FB/12**, the proposed undertaking, location, and project dimensions are described in the following report:

Leroy, Adam, Cole Wandler and Carolyn Riordan
(2012) A Class I and Class III Cultural Resource Inventory of the Arrow Station #4: Phase 2SE Compressor Station, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

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.

Sincerely,

Regional Director

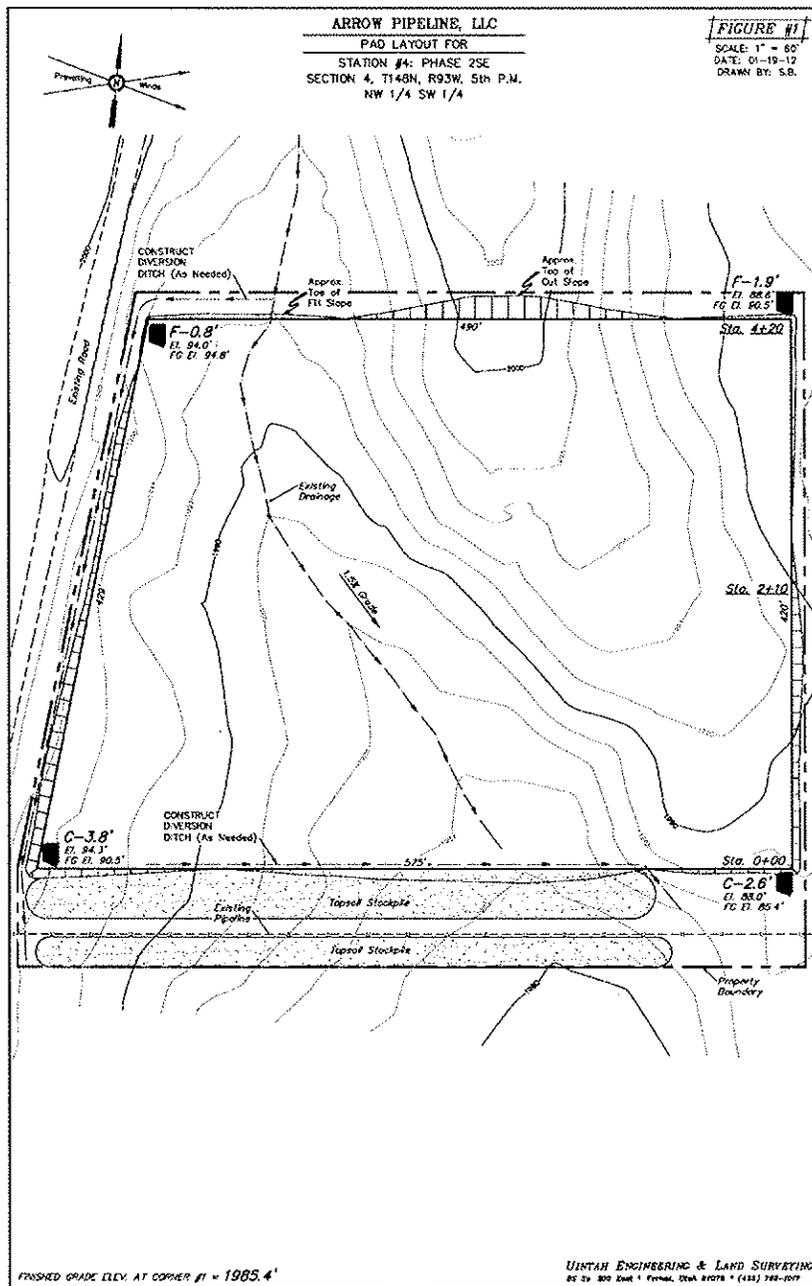
Enclosure

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

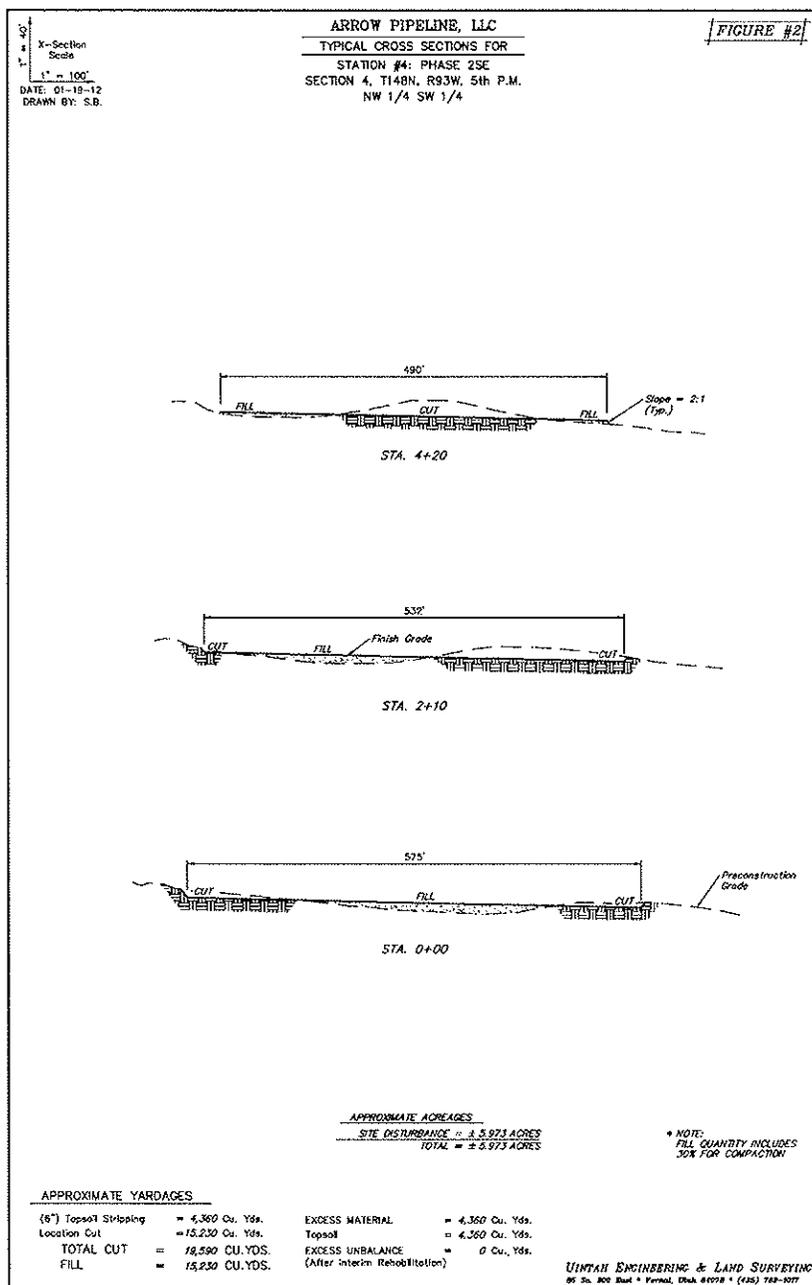
APPENDIX A

Right-of-Way for Arrow Station #4: Phase 2SE Compressor and Pump Station

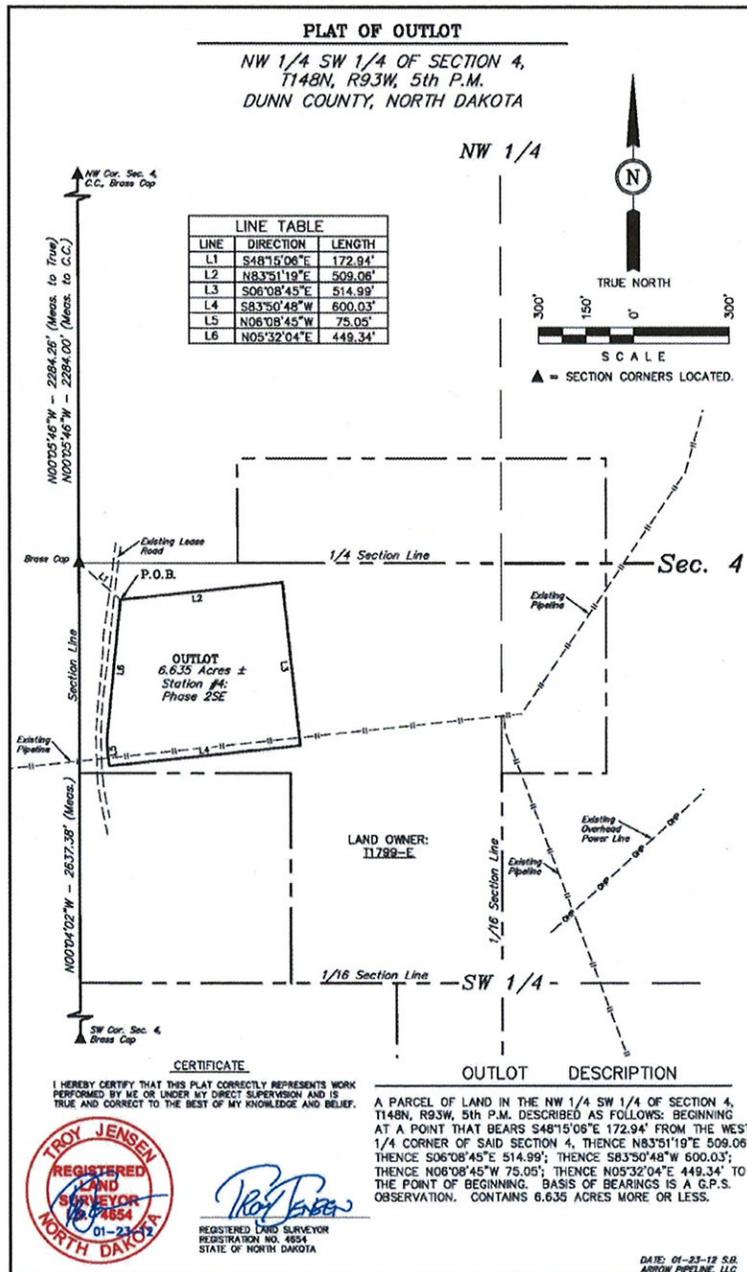
*Addendum to Environmental Assessment to Authorize Land Use for the Construction of the Arrow
Station #4: Phase 2SE Compressor and Pump Station on the Existing Phase 1B Prime Pipeline System
(June 2012)*



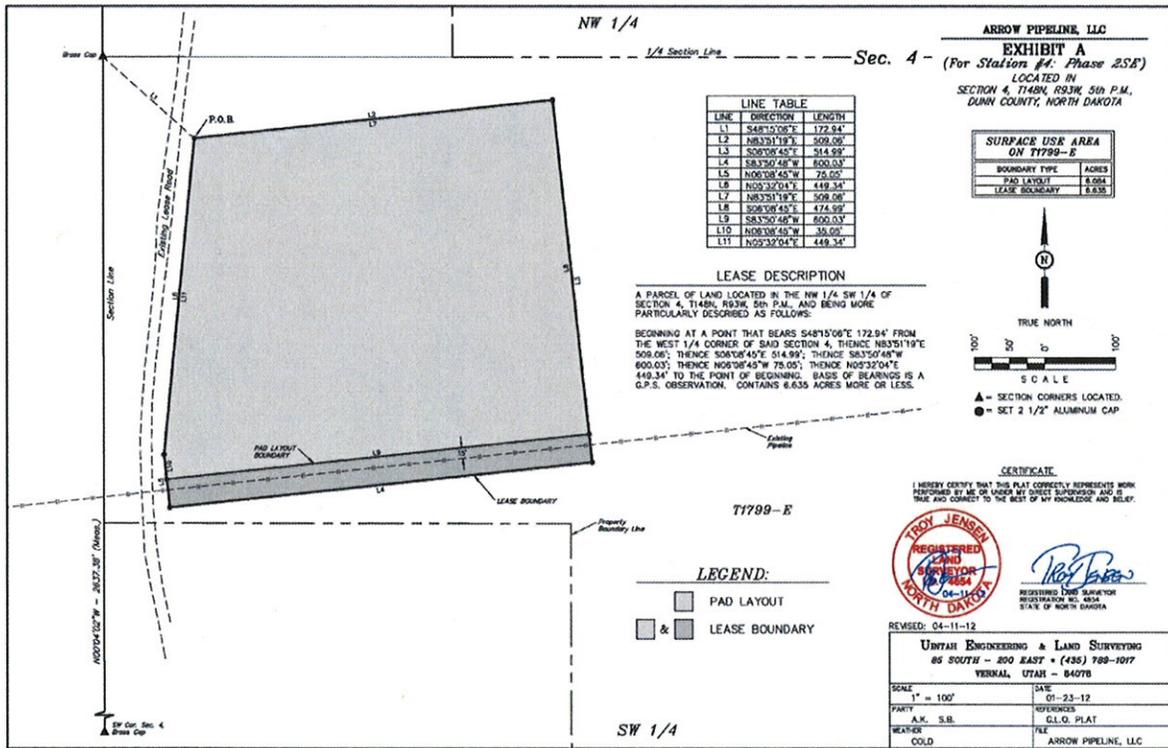
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(June 2012)*



*Addendum to Environmental Assessment to Authorize Land Use for the Construction of the Arrow
Station #4: Phase 2SE Compressor and Pump Station on the Existing Phase 1B Prime Pipeline System
(June 2012)*



Notice of Availability and Appeal Rights

Arrow Pipeline: Addendum to Environmental Assessment to Authorize Land Use for the Construction of the Arrow Station #4: Phase 2SE Compressor and Pump Station on the Existing Phase 1B Prime Pipeline System

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to the Construction of the Arrow Station #4: Phase 2SE Compressor and Pump Station on the Existing Phase 1B Prime Pipeline System on the Berthold Reservation as shown on the attached map. Construction by Arrow Pipeline 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 July 5, 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.



**Station #4 Phase 2SE
Compressor Station**

- Phase 1B Prime Pipeline System
- Phase 2SE Pipeline System
- Existing Road
- Proposed Compressor Station
- Survey Area

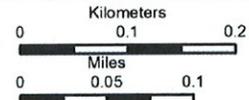


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Date Saved: 3/12/2012 01:19



Base Map: Bing Maps Aerial Imagery
Source: esri ArcGIS service
Quadrangle: Mandaree NE (1973)
Township 148N & Range 93W
Dunn County, North Dakota



Scale: 1:7,000 NAD 1983 UTM Zone 13N