# 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

JUL 30 2012

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 for pipelines connecting the Fort Berthold #148-94-22B-27-5H well to the approved Arrow Fort Berthold #148-94-17D-08-1H, -2H 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)
Carson Hood/Fred Fox, MHA Energy Dept. (with attachment)
Jonathon Shelman, Corps of Engineers
Jeff Hunt, Fort Berthold Agency

*Finding of No Significant Impact*

## *Arrow Pipeline, LLC*

## *Addendum to Environmental Assessment to Authorize Land Use for Pipelines Connecting the Fort Berthold #148-94-22B-27-5H Well to the Approved Arrow Fort Berthold #148-94-17D-08-1H, -2H Pipeline System*

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

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to authorize land use for the construction and installation of three pipelines including one crude oil pipeline, one natural gas pipeline, and one produced water pipeline. As proposed, the Fort Berthold (FB) #148-94-22B-27-5H pipeline system (pipelines) would transport oil, gas, and produced water to markets and approved disposal sites. The pipelines would be located on trust land, entirely within the NE¼ NW¼ of Section 22, Township (T) 148 North (N), Range (R) 94 West (W), Dunn County, North Dakota, originating at the west side of the FB #148-94-22B-27-5H well pad (well pad). The pipelines would trend south-southwest and connect to the approved FB #148-94-17D-08-1H, -2H pipeline system (tie-in) which subsequently becomes part of the existing Arrow Phase 3 Southwest Pipeline System.

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.

Acting Tim LaPointe
Regional Director

7-30-2012
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 Pipelines Connecting the Fort Berthold #148-94-22B-27-5H Well to the Approved Arrow Fort Berthold #148-94-17D-08-1H, -2H Pipeline System**

**Fort Berthold Indian Reservation**

**July 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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**Appendix**

A Pipeline Layout and Pipeline Right-of-Way for the Fort Berthold #148-94-22B-27-5H Pipeline System

# 1. Purpose and Need for the Proposed Action

The purpose of the proposed action is to authorize the land use by Arrow Pipeline, LLC (Arrow) for the construction and installation of three pipelines including one crude oil pipeline, one natural gas pipeline, and one produced water pipeline. As proposed, the Fort Berthold (FB) #148-94-22B-27-5H pipeline system (pipelines) would transport oil, gas, and produced water to markets and approved disposal sites. A buried electrical line may be installed within the approved right-of-way (ROW) in the future.

Developments have been proposed on land held in trust by the United States in Dunn County, North Dakota, where the Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected 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.

# 2. Authorities

Oil and gas exploration and development activities are conducted under the 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 pipelines would be located on trust land, entirely within the NE¼ NW¼ of Section 22, Township (T) 148 North (N), Range (R) 94 West (W), Dunn County, North Dakota, originating at the west side of the FB #148-94-22B-27-5H well pad (well pad). The pipelines would trend south-southwest and connect to the approved FB #148-94-17D-08-1H, -2H pipeline system (tie-in) which subsequently becomes part of the existing Arrow Phase 3 Southwest Pipeline System.

# 4. Scope of Work for Proposed Action

Oil, gas, and produced water pipelines would be buried in two 2.5-foot-wide trenches, spaced 5.0 feet apart, or one 5.0-foot-wide trench. Oil and gas pipelines would be no greater than 8 inches in diameter and constructed of new steel. The produced water pipeline would also be no greater than 8 inches in diameter and constructed of Fiberspar® or similar corrosion-resistant material. All of the construction disturbances would occur within a 120-foot-wide temporary construction ROW and permanent surface disturbance would occur within a 50-foot-wide ROW between the well pad and the tie-in.

Approximately 955.8 feet of oil, gas, and produced water pipe would be needed to connect the well pad to the approved tie-in. Approximately 2.63 acres would be disturbed as a result of activities associated with the construction of the proposed pipelines. Pipeline plats are provided in Appendix A.

## 5. Materials Information and Corrosion Rates

**Steel Pipe**

Arrow proposes to construct the oil and gas pipelines using new steel pipe rated by the American Petroleum Institute (API) as 5L X52. Arrow would ensure that each steel pipe segment is coated with approximately 14 to 16 millimeters of fusion bonded epoxy coating. Further, Arrow would deploy an active cathodic protection system for all steel pipe, which further reduces the likelihood of external corrosion. Arrow would ensure that each steel pipe segment is allotted a 1/16-inch corrosion allowance; however, because of the non-corrosive nature of Bakken crude and the low concentrations of hydrogen sulfide, Arrow does not anticipate any external or internal corrosion during the operating lifetime of the pipe, which, at a minimum, is estimated to be 50 years.

**Fiberspar® or Similar Pipe**

Arrow proposes to construct the produced water pipeline using a material known as Fiberspar or one with the same corrosion-resistant characteristics as Fiberspar. This type of material is not subject to internal or external corrosion.

## 6. Spill Response Plan

Arrow has developed a Spill Response Plan (Plan) (Middick 2011[1]) for the Phase 3 Southwest pipeline. 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. A copy of the Plan has been filed with the BIA and Arrow has legally committed to adhering to the procedures and requirements as defined by federal law (Title 49 Code of Federal Regulations [CFR] 194). Arrow has committed to submitting a spill response plan, specific to this proposed project, to the BIA prior to the commencement of construction activities.

## 7. Pipeline Marking Procedures

Arrow adheres to the requirements of 49 CFR 192.707 with regard to the marking of buried pipelines. Specifically, Arrow 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.

## 8. 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

[1] Middick, A. 2011. *Operations Monitoring and Spill Response Plan.* Blackshare Environmental Solutions. Oklahoma City, Oklahoma.

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.

## 9. Valve Locations

Two valves would be installed at each end of the proposed pipelines. One valve would be installed at the well location and the second valve would be installed at the proposed tie-in. The installation of two valves would allow Arrow to isolate the proposed pipelines, if required.

## 10. Reclamation

**Interim Reclamation**

Reclamation would continue to occur over the life of the pipelines. Interim reclamation would be required after initial construction and then following any maintenance work or additions of infrastructure. Reclamation would be required before final abandonment of the decommissioned pipeline. Successful reclamation would at all times be the responsibility of the system's operator.

Trenches would be back-filled immediately after the pipe is installed and testing is complete, assuming frozen or saturated soils are not present. Back-fill piles would be stored opposite of the topsoil piles during construction. If construction occurs during winter, Arrow would partially fill the trench with useable, non-frozen, back-fill soil to the extent possible and cover the entire ROW including the trench with straw. The trench would be back-filled and topsoil distributed as soon as practicable after the soil has defrosted. Topsoil piles would be covered to eliminate the potential for rill erosion and subsequent loss of soil during spring snow melt and precipitation events.

Applicable short- and long-term best management practices would be used to minimize and control erosion in disturbed areas. To reduce compaction, the ROW 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 ROW 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 ROW 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 pipelines are 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. It is economically and environmentally unfeasible to excavate and remove the decommissioned pipelines. Instead, the pipelines would be purged with water of any natural gas remaining in the lines and abandoned in place.

## 11. Surveys

SWCA Environmental Consultants (SWCA) conducted natural resource surveys for threatened and endangered habitat, migratory bird nesting habitat, bald and golden eagles and nests, and wetlands/waterbodies on October 27, 2011. BIA Environmental Specialist Chris McLaughlin was present on-site on October 28, 2011, to ensure that impacts to any sensitive resources were avoided or minimized to the maximum extent possible. Migratory bird habitat is prevalent in the survey area and Arrow has committed to following one of the following three listed mitigation procedures in order to reduce the potential for impact on migratory birds and their nests: 1) conduct construction outside of the migratory bird breeding season (i.e., between July 16 and January 31); 2) regularly mow vegetation in the ROW prior to February 1 and maintain through July 15 or until construction has cleared the ROW; or 3) conduct a field survey for nesting migratory birds within five days of construction commencement and if active nests are found, notify the BIA and U.S. Fish and Wildlife Service. No wetlands or waterbodies were observed within the project area.

A cultural resource inventory of this pipeline route was conducted by personnel of SWCA Environmental Consultants, using an intensive pedestrian methodology. Approximately 5.01 acres were inventoried on October 27-28, 2012 (Leroy and Cox 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 June 29, 2012; however the THPO did not respond within the allotted 30 day comment period.

Leroy, Adam, and Matthew Cox

(2012) A Class I and Class III Cultural Resource Inventory of the Arrow Fort Berthold #148-94-22B-27-5H Pipeline System, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

## 12. Potential Effects

Potential direct impacts to cultural resource sites would occur as a result of disturbance to and/or the loss of sites eligible for the National Register of Historic Places. All potential impacts as a result of the proposed action were mitigated via field survey and subsequent avoidance of any eligible cultural resource sites within the proposed ROW.

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 within six months and would include the return of topsoil and contouring, and seeding of native vegetation.

Potential indirect impacts include noise and other disturbances to wildlife during construction and the introduction of noxious weeds. Impacts would be mitigated through avoidance of any federally listed threatened or endangered species or wetlands, avoidance of nesting migratory birds, implementation of best management practices to control the introduction of noxious weeds, and minimization of 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 (September 2011).

## 13. Applicable NEPA Document(s)

- *Environmental Assessment and Finding of No Significant Impact: Arrow Pipeline, LLC Phase 3 Southwest Pipeline* (September 2011).
- *Addendum to Environmental Assessment and Finding of No Significant Impact: Arrow Pipeline, LLC Fort Berthold #147-94-1A-12-1H, Fort Berthold #147-94-3A-10-1H, Fort Berthold #148-94-9D-04-1H, -2H, Fort Berthold #148-94-17D-08-1H, -2H, Fort Berthold #148-94-35D-26-1H, -2H & Fort Berthold #147-94-2A-11-1H, -2H Well Pads to the Arrow Phase 3 Southwest Pipeline Arrow Pipeline, LLC* (October 2011).

## 14. NEPA Adequacy Criteria

This document has identified two previously prepared NEPA documents (see Section 13) which adequately describe the environmental consequences of the newly proposed action described herein, and meet the following NEPA Adequacy Criteria.

1. The proposed action is substantially the same action and at the site specifically analyzed in the existing NEPA documents.
2. The range of alternatives is reasonable with respect to the current proposed action in the existing NEPA documents, which appropriately consider and analyze current environmental concerns, interests, and resource values.
3. The existing analysis and conclusions are adequate in the existing NEPA documents. 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 documents 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 documents.
6. The cumulative impacts that would result from implementation of the proposed action are unchanged from those analyzed in the existing NEPA documents.
7. A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA documents.

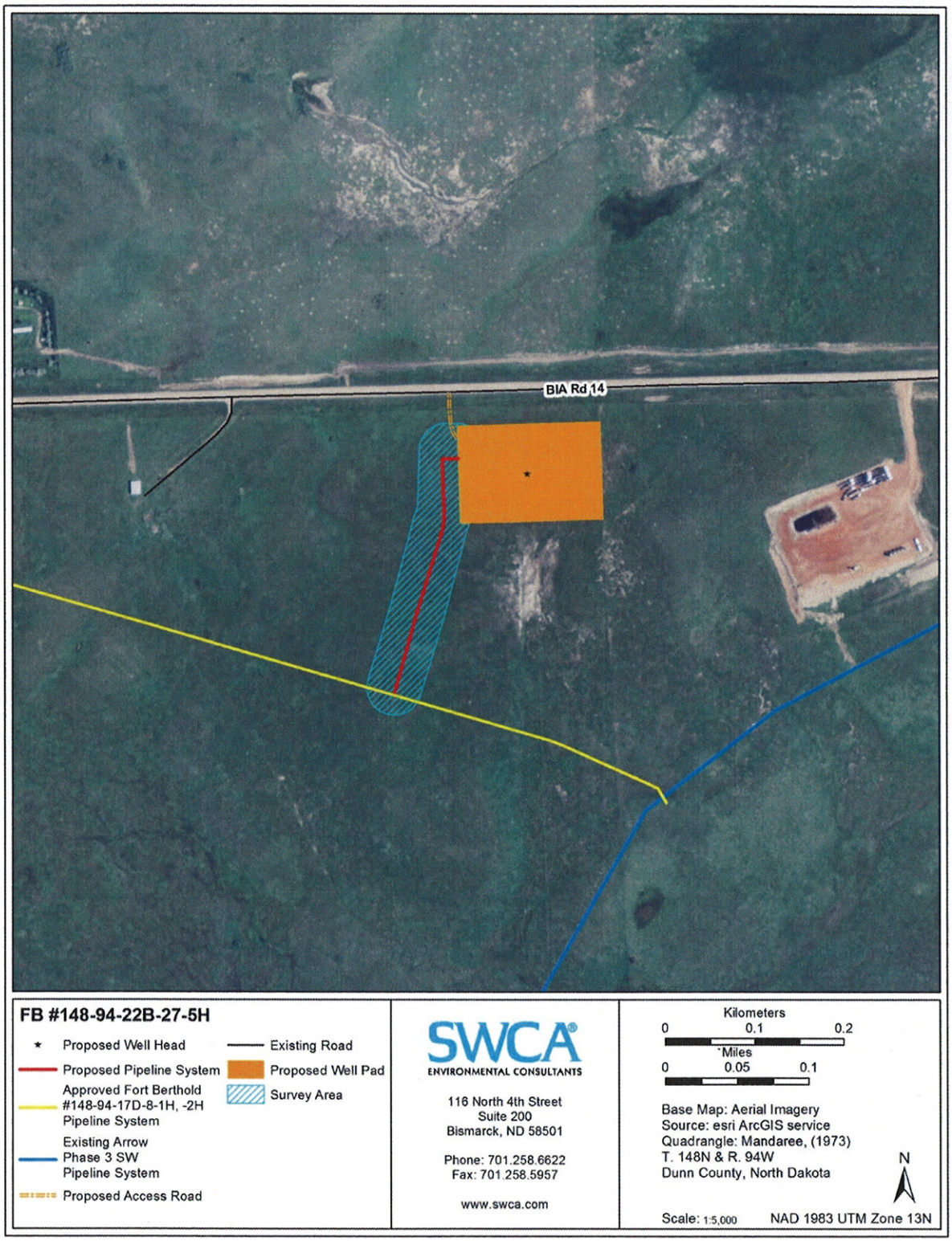



**Figure 1. Proposed Arrow Fort Berthold #148-94-22B-27-5H pipeline system.**

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

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
DESCRM
MC-208

JUN 29 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 three oil gathering lines in Dunn County, North Dakota. Approximately 25.76 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have reached a determination of **no historic properties affected** for these undertakings. Catalogued as **BIA Case Number AAO-2056/FB/12**, the proposed undertakings, locations, and project dimensions are described in the following reports:

Leroy, Adam, and Matthew Cox
(2012a) A Class I and Class III Cultural Resource Inventory of the Arrow Fort Berthold #148-94-33C-28-3H, -4H and -5H Pipeline System, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

(2012b) A Class I and Class III Cultural Resource Inventory of the Arrow Fort Berthold #148-94-22B-27-5H Pipeline System, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

Leroy, Adam D., and Carolyn Riordan
(2012) A Class I and Class III Cultural Resource Inventory of the Arrow Fort Berthold #148-94-20C-21-4H, -5H Pipeline System, 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,

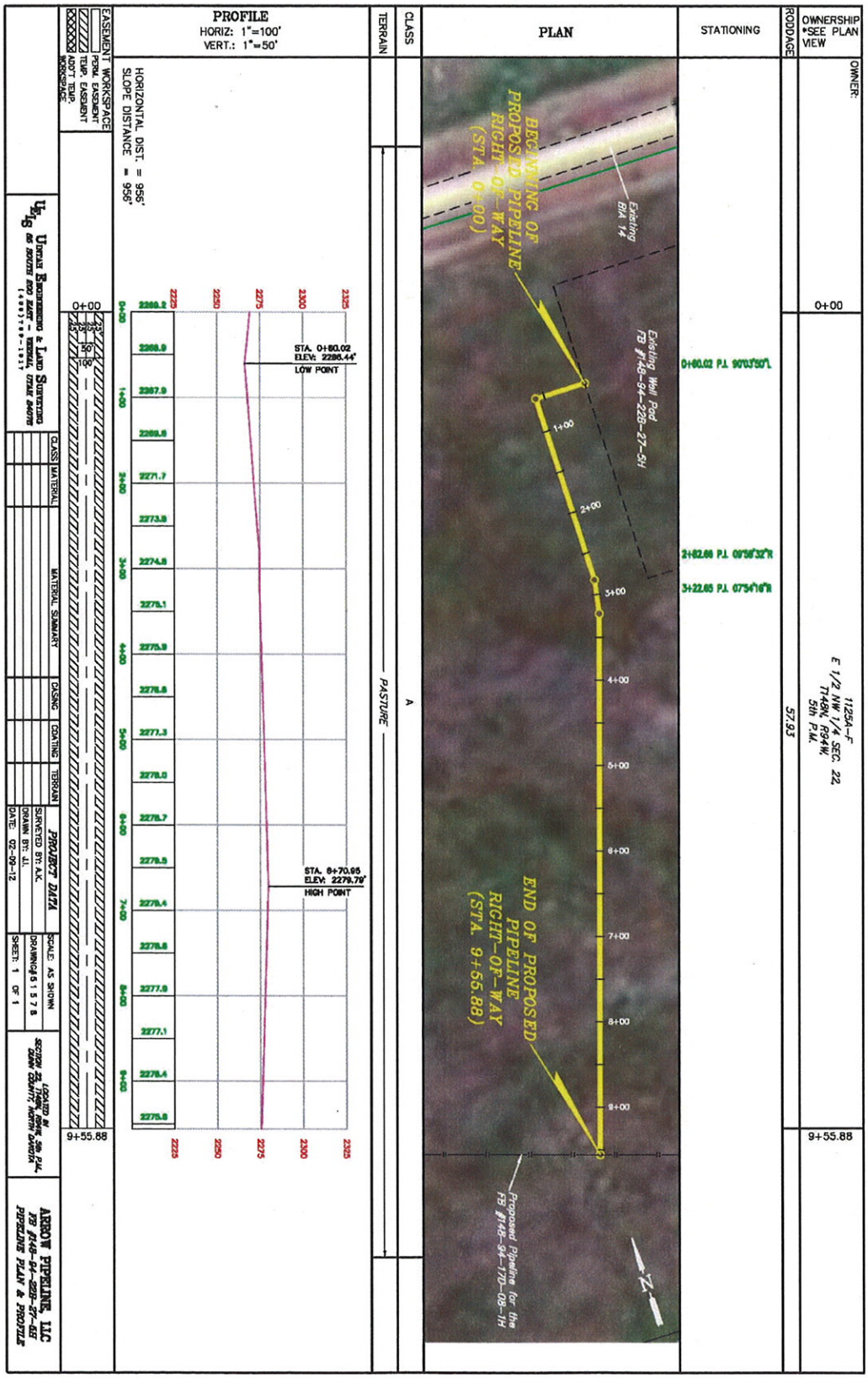
Regional Director

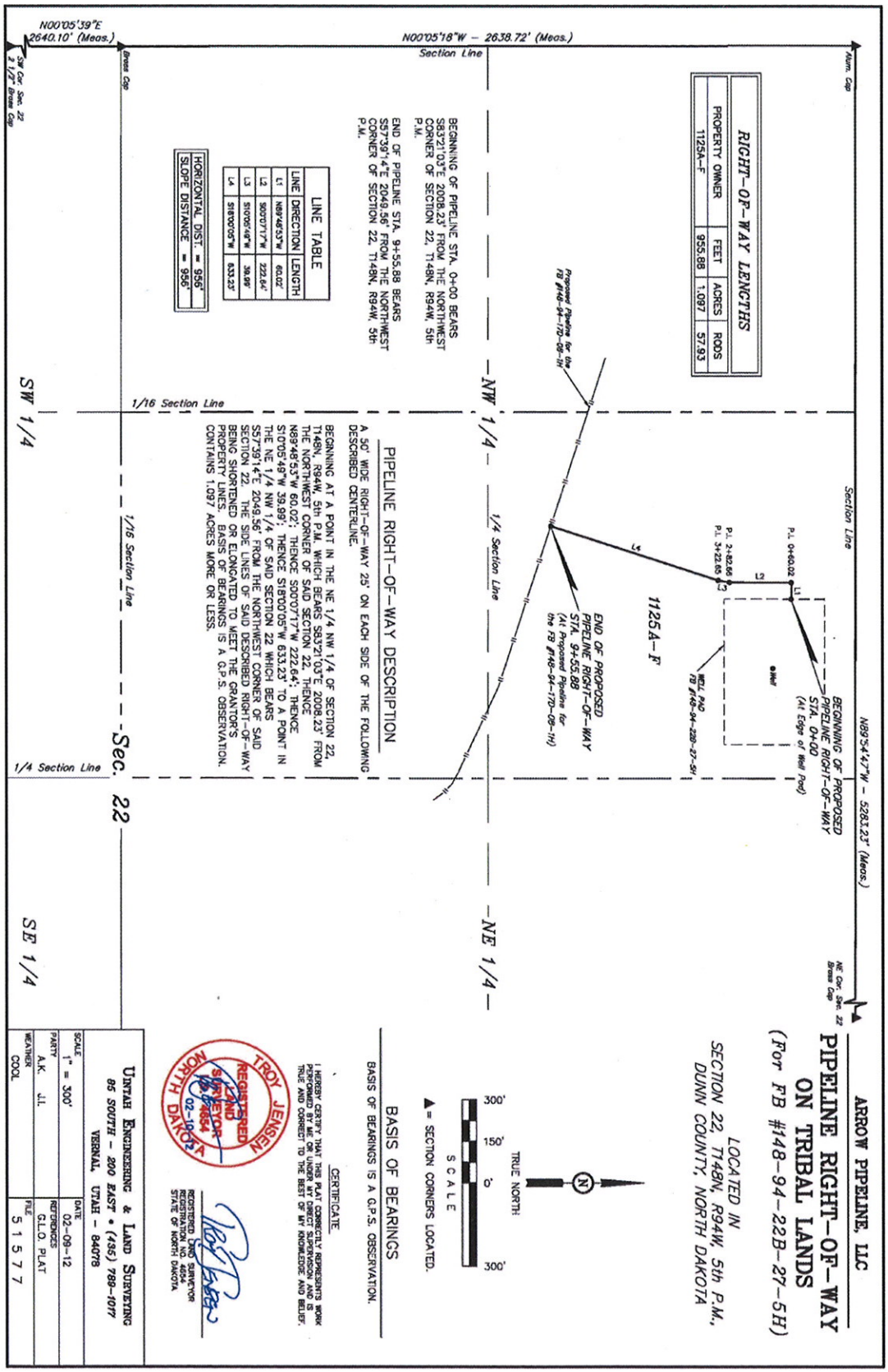
Enclosures

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

# APPENDIX A

## Pipeline Layout and Pipeline Right-of-Way for the Fort Berthold #148-94-22B-27-5H Pipeline System


PROFILE
HORIZ: 1"=100'
VERT.: 1"=50'
HORIZONTAL DIST. = 956'
SLOPE DISTANCE = 956'
EASEMENT WORKSPACE
PERM. EASEMENT
TEMP. EASEMENT
ADD'T TEMP. WORKSPACE
TERRAIN
CLASS
PLAN
STATIONING
RODDAGE
OWNERSHIP *SEE PLAN VIEW
OWNER:
0+00
9+55.88
57.93
PASTURE
A
BEGINNING OF PROPOSED PIPELINE RIGHT-OF-WAY (STA. 0+00)
END OF PROPOSED PIPELINE RIGHT-OF-WAY (STA. 9+55.88)
Existing BIA 14
Existing Well Pad FB #148-94-22B-27-5H
Proposed Pipeline for the FB #148-94-170-08-1H
STA. 0+60.02 ELEV: 2286.44' LOW POINT
STA. 6+70.95 ELEV: 2279.79' HIGH POINT
1125A-F
E 1/2 NW 1/4 SEC. 22, T148N, R94W, 5th P.M.
PROJECT DATA
SURVEYED BY: A.K.
DRAWN BY: J.J.
DATE: 02-09-12
SCALE: AS SHOWN
SHEET: 1 OF 1
ARROW PIPELINE, LLC
FB #148-94-22B-27-5H
PIPELINE PLAN & PROFILE


ARROW PIPELINE, LLC
PIPELINE RIGHT-OF-WAY ON TRIBAL LANDS
(For FB #148-94-22B-27-5H)
LOCATED IN SECTION 22, T148N, R94W, 5th P.M., DUNN COUNTY, NORTH DAKOTA
N89°54'47"W - 5281.23' (Meas.)
N00°05'18"W - 2638.72' (Meas.)
N00°05'39"E 2640.10' (Meas.)
Section Line
1/16 Section Line
1/4 Section Line
SW 1/4
NW 1/4
SE 1/4
NE 1/4
Sec. 22
1125A-F
BEGINNING OF PROPOSED PIPELINE RIGHT-OF-WAY STA. 0+00 (At Edge of Well Pad)
END OF PROPOSED PIPELINE RIGHT-OF-WAY STA. 9+55.88 (At Proposed Pipeline for the FB #148-94-17D-08-1H)
WELL PAD FB #148-94-22B-27-5H
Proposed Pipeline for the FB #148-94-17D-08-1H
P.I. 0+60.02
P.I. 2+82.66
P.I. 3+22.66
L1
L2
L3
L4
L5
RIGHT-OF-WAY LENGTHS
PROPERTY OWNER | FEET | ACRES | RODS
1125A-F | 955.88 | 1.097 | 57.93
BEGINNING OF PIPELINE STA. 0+00 BEARS S83°21'03"E 2008.23' FROM THE NORTHWEST CORNER OF SECTION 22, T148N, R94W, 5th P.M.
END OF PIPELINE STA. 9+55.88 BEARS S57°39'14"E 2049.56' FROM THE NORTHWEST CORNER OF SECTION 22, T148N, R94W, 5th P.M.
LINE TABLE
LINE | DIRECTION | LENGTH
L1 | N89°46'53"W | 60.02'
L2 | S00°07'17"W | 222.64'
L3 | S10°05'49"W | 39.99'
L4 | S18°00'05"W | 633.23'
HORIZONTAL DIST. = 956'
SLOPE DISTANCE = 956'
PIPELINE RIGHT-OF-WAY DESCRIPTION
A 50' WIDE RIGHT-OF-WAY 25' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.
BEGINNING AT A POINT IN THE NE 1/4 NW 1/4 OF SECTION 22, T148N, R94W, 5th P.M. WHICH BEARS S83°21'03"E 2008.23' FROM THE NORTHWEST CORNER OF SAID SECTION 22, THENCE N89°46'53"W 60.02'; THENCE S00°07'17"W 222.64'; THENCE S10°05'49"W 39.99'; THENCE S18°00'05"W 633.23' TO A POINT IN THE NE 1/4 NW 1/4 OF SAID SECTION 22 WHICH BEARS S57°39'14"E 2049.56' FROM THE NORTHWEST CORNER OF SAID SECTION 22. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 1.097 ACRES MORE OR LESS.
BASIS OF BEARINGS
BASIS OF BEARINGS IS A G.P.S. OBSERVATION.
TRUE NORTH
300' 150' 0' 300'
SCALE
▲= SECTION CORNERS LOCATED.
CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.
TROY JENSEN REGISTERED LAND SURVEYOR LS-6654 02-19-12 NORTH DAKOTA
REGISTERED LAND SURVEYOR REGISTRATION NO. 4654 STATE OF NORTH DAKOTA
UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH - 200 EAST • (435) 789-1017
VERNAL, UTAH - 84078
SCALE 1" = 300'
DATE 02-09-12
PARTY A.K. J.I.
REFERENCES G.L.O. PLAT
WEATHER COOL
FILE 5 1 5 7 7

*ARROW PIPELINE, LLC*
*FB #148-94-22B-27-5H*
*PIPELINE RIGHT-OF-WAY*
*SECTION 22, T148N, R94W, 5th P.M.*

## TOTAL PIPELINE RIGHT-OF-WAY ON TRIBAL LANDS

TOTAL LENGTH OF RIGHT-OF-WAY IS 955.88' OR 0.181 MILES. WIDTH OF RIGHT-OF-WAY IS 50' (25' PERPENDICULAR ON EACH SIDE OF THE CENTERLINE). CONTAINS 1.097 ACRES MORE OR LESS.

## ENGINEER'S AFFIDAVIT

STATE OF MONTANA }
COUNTY OF RICHLAND } SS

TROY JENSEN, BEING FIRST DULY SWORN DEPOSES AND STATES THAT HE IS THE REGISTERED LAND SURVEYOR, FOR ARROW PIPELINE, LLC, THAT THESE SURVEYS WERE MADE BY HIM (OR UNDER HIS SUPERVISION): THAT HE HAS EXAMINED THE FIELD NOTES OF THE SURVEYS OF THE PIPELINE RIGHT-OF-WAY AS DESCRIBED AND SHOWN ON THIS MAP, THAT THIS MAP WAS PREPARED UNDER HIS DIRECTION FROM SAID FIELD NOTES; AND THAT SAID RIGHT-OF-WAY, 0.181 MILES IN LENGTH BEGINNING AND ENDING AS SHOWN ON THIS MAP IS ACCURATELY REPRESENTED.

TROY JENSEN
REGISTERED LAND SURVEYOR
4654
02-10-12
NORTH DAKOTA

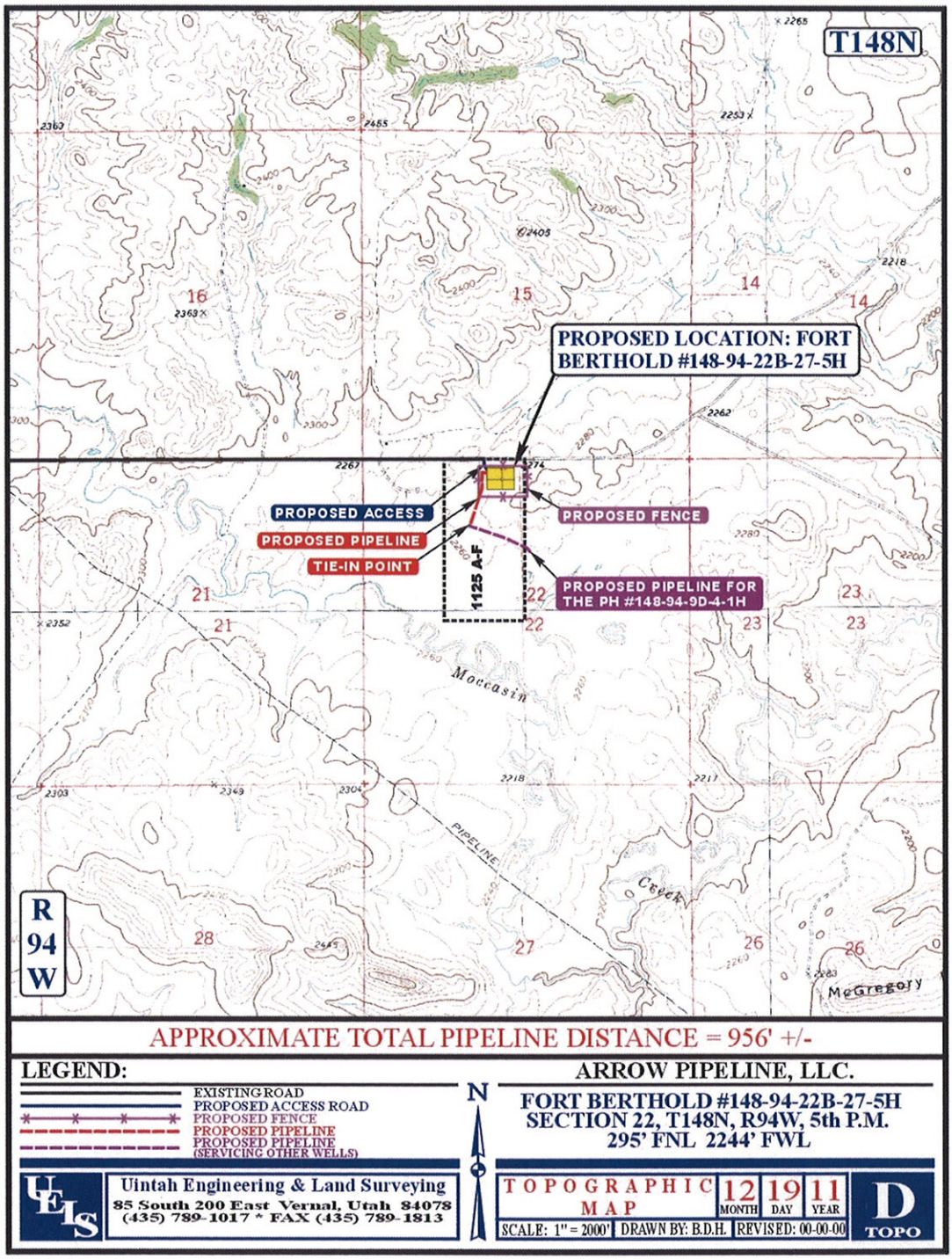
REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

## APPLICANT'S CERTIFICATE

I, JOHN M. DOLAN, DO HEREBY CERTIFY THAT I AM THE V.P. OF ENGINEERING FOR ARROW PIPELINE, LLC, HEREINAFTER DESIGNATED THE APPLICANT; THAT TROY JENSEN WHO SUBSCRIBED TO THE FOREGOING AFFIDAVIT, IS EMPLOYED BY THE APPLICANT AS A LAND SURVEYOR AND THAT HE WAS DIRECTED BY THE APPLICANT TO SURVEY THE LOCATION OF THIS PIPELINE RIGHT-OF-WAY, 0.181 MILES IN LENGTH BEGINNING AT STA. 0+00 AND ENDING AT STA. 9+55.88, THAT SAID PIPELINE RIGHT-OF-WAY IS ACCURATELY REPRESENTED ON THIS MAP; THAT SUCH SURVEY AS REPRESENTED ON THIS MAP HAS BEEN ADOPTED BY THE APPLICANT AS THE DEFINITE LOCATION OF THE RIGHT-OF-WAY THEREBY SHOWN; AND THAT THE MAP HAS BEEN PREPARED TO BE FILED WITH THE SECRETARY OF THE INTERIOR OR HIS DULY AUTHORIZED REPRESENTATIVE AS PART OF THE APPLICATION FOR SAID RIGHT-OF-WAY TO BE GRANTED THE APPLICANT, ITS SUCCESSORS AND ASSIGNS, WITH THE RIGHT TO CONSTRUCT, MAINTAIN, AND REPAIR IMPROVEMENTS, THEREON AND THEREOVER, FOR SUCH PURPOSES, AND WITH THE FURTHER RIGHT IN THE APPLICANT, ITS SUCCESSORS AND ASSIGNS TO TRANSFER THIS RIGHT-OF-WAY BY ASSIGNMENT, GRANT, OR OTHERWISE.

APPLICANT

V.P. OF ENGINEERING
TITLE


T148N
PROPOSED LOCATION: FORT BERTHOLD #148-94-22B-27-5H
PROPOSED ACCESS
PROPOSED PIPELINE
TIE-IN POINT
PROPOSED FENCE
1125 A-F
PROPOSED PIPELINE FOR THE PH #148-94-9D-4-1H
Moccasin
PIPELINE
Creek
McGregory
R 94 W
APPROXIMATE TOTAL PIPELINE DISTANCE = 956' +/-
LEGEND:
EXISTING ROAD
PROPOSED ACCESS ROAD
PROPOSED FENCE
PROPOSED PIPELINE
PROPOSED PIPELINE (SERVICING OTHER WELLS)
N
ARROW PIPELINE, LLC.
FORT BERTHOLD #148-94-22B-27-5H
SECTION 22, T148N, R94W, 5th P.M.
295' FNL 2244' FWL
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813
TOPOGRAPHIC MAP
12 MONTH
19 DAY
11 YEAR
SCALE: 1" = 2000'
DRAWN BY: B.D.H.
REVISED: 00-00-00
D TOPO

# Notice of Availability and Appeal Rights

**Arrow Pipeline: Addendum to Environmental Assessment to Authorize Land Use for Pipelines Connecting the Fort Berthold #148-94-22B-27-5H Well to the Approved Arrow Fort Berthold #148-94-17D-08-1H, -2H Pipeline System**

**The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals for Pipelines Connecting the Fort Berthold #148-94-22B-27-5H Well to the Approved Arrow Fort Berthold #148-94-17D-08-1H, -2H Pipeline System on the Berthold Reservation as shown on the attached map. Construction by Arrow 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 701-627-6570 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 August 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 701-627-6570.**

**Project locations.**

**FB #148-94-22B-27-5H**

- Proposed Well Head
- Proposed Pipeline System
- Approved Fort Berthold #148-94-17D-8-1H, -2H Pipeline System
- Existing Arrow Phase 3 SW Pipeline System
- Proposed Access Road
- Existing Road
- Proposed Well Pad
- Survey Area

SWCA® ENVIRONMENTAL CONSULTANTS

116 North 4th Street
Suite 200
Bismarck, ND 58501

Phone: 701.258.6622
Fax: 701.258.5957

www.swca.com

Kilometers
0 0.1 0.2

Miles
0 0.05 0.1

Base Map: Aerial Imagery
Source: esri ArcGIS service
Quadrangle: Mandaree, (1973)
T. 148N & R. 94W
Dunn County, North Dakota

N

Scale: 1:5,000 NAD 1983 UTM Zone 13N