



United States Department of the Interior

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



IN REPLY REFER TO:
DESCRM
MC-208

OCT 12 2010

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: 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, for Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines on the Fort Berthold Reservation, an Addendum has been completed and a Finding of No Significant Impact (FONSI) has been issued.

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the EA, FONSI and Notice of Availability. The Council on Environmental Quality (CEQ) regulations require that there be a public notice of availability of the FONSI (1506.6(b)). Please post the attached notice of availability at the Agency and Tribal buildings for 30 days.

If you have any questions, please call Marilyn Bercier, Regional Environmental Scientist, Division of Environment, Safety and Cultural Resources Management, at (605) 226-7656.

Attachment

cc: Marcus Levings, Chairman, Three Affiliated Tribes (with attachment)
Perry "No Tears" Brady, Tribal Historic Preservation Officer (with attachment)
Roy Swalling, Bureau of Land Management (with attachment)
Jonathon Shelman, Corps of Engineers (with attachment)
Jeff Hunt, One Stop Shop, Fort Berthold Agency

**Finding of No Significant Impact
Arrow Pipeline, LLC**

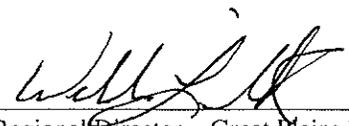
**Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines
Connecting Two Shields Butte #14-21-33-15H Well Pad to the
Two Shields Butte #14-33-28H Gathering Pipelines**

The U.S. Bureau of Indian Affairs (BIA) received a proposal for an Addendum to the Environmental Assessment for *Environmental Assessment: Kodiak Oil & Gas (USA), Inc., Six Bakken Exploratory Wells at Three Locations: 16-8, 16-12, and 14-33* (October 2008) and *Environmental Assessment: Arrow Midstream Holdings East Mandaree Oil, Gas, and Water Gathering System* (December 2009) to authorize Kodiak to construct and install oil, gas, and water gathering pipelines on tribal land originating from the south corner of the Two Shields Butte #14-21-33-15H well pad and joining the existing Two Shields Butte #14-33-28H gathering lines. All construction disturbance would occur within a 100-foot temporary right-of-way (ROW) and permanent surface disturbance would occur within a 50-foot right-of-way between the Two Shields Butte #14-21-33-15H well pad and the Two Shields Butte #14-33-28H gathering lines. Associated federal actions by BIA include determinations of effect regarding cultural resources and approvals of leases, rights-of-way and easements.

Potential of the proposed action to impact the human environment is analyzed in the attached Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the recently completed addendum to the EA, I have determined 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 was solicited and environmental issues related to the proposal were identified.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, water resources, and cultural resources. The potential for impacts was disclosed for both the proposed action 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.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).
4. The proposed action was designed to avoid adverse effects to historic, archaeological, cultural, and traditional properties, sites, and practices. The Tribal Historic Preservation Officer has concurred with BIA's determination that no historic properties will be affected.
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 project will improve the socioeconomic condition of the affected Indian community.



Regional Director – Great Plains Regional Office

10/12/10
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 Gathering
Pipelines Connecting Two Shields Butte #14-21-33-15H Well Pad to the
Two Shields Butte #14-33-28H Gathering Pipelines**

Fort Berthold Indian Reservation

October 2010

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 Two Shields Butte #14-21-33-15H Gathering Pipelines	
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1. Purpose and Need for the Proposed Action

Kodiak Oil & Gas (USA), Inc. (Kodiak) is drilling an exploratory oil and gas well on the Fort Berthold Indian Reservation to evaluate and possibly develop the commercial potential of natural resources. Developments have 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 Nations and to individual tribal members.

The purpose of the proposed action is to authorize the land use by Kodiak for the construction and installation of three gathering pipelines: one 10-inch-diameter or smaller oil line, one 12-inch-diameter or smaller gas line, and one 8-inch-diameter or smaller water line. The proposed gathering pipelines would transport oil, gas, and produced water from productive wells to markets and disposal facilities. A buried electrical line may be installed in the future.

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 Two Shields Buttes #14-21-33-15H gathering lines would be located on tribal land off of the south corner of the well pad, approximately 10.25 miles southeast of Mandaree, North Dakota, in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 28, Township (T) 149 North (N), Range (R) 92 West (W), 5th Prime Meridian (P.M.), Dunn County, North Dakota. The lines would terminate in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 33, T149N, R92W, 5th P.M., Dunn County, North Dakota (Figure 1).

4. Scope of Work for Proposed Action

Kodiak proposes to construct and install oil, gas, and water gathering pipelines on tribal land originating from the south corner of the Two Shields Butte #14-21-33-15H well pad and joining the existing Two Shields Butte #14-33-28H gathering lines. All construction disturbance would occur within a 100-foot temporary right-of-way (ROW) and permanent surface disturbance would occur within a 50-foot right-of-way between the Two Shields Butte #14-21-33-15H well pad and the Two Shields Butte #14-33-28H gathering lines. Oil, gas, and water pipelines would be buried in either two 2.5-foot-wide trenches, spaced 5.0 feet apart, or one 5.0-foot-wide trench. Oil (10-inch diameter or smaller) and gas (12-inch diameter or smaller) pipelines would be constructed of steel. The water pipeline would be equal to or less than 8 inches in diameter and constructed of Fiberspar[®] or similar material. Approximately

2.91 miles of oil, gas, and water line would be needed to connect the Two Shields Butte #14-21-33-15H well pad to the Two Shields Butte #14-38-28H gathering lines (Appendix A). The permanent surface disturbance will encompass 17.67 acres within the 50-foot-wide permanent ROW, while a total 35.34 acres will be disturbed as a result of activities associated with the construction of the proposed gathering pipelines within the 100-foot-wide temporary ROW. Pipeline plats are provided in Appendix A.

5. Surveys

SWCA Environmental Consultants (SWCA) conducted natural resource surveys for threatened and endangered species, migratory birds, bald and golden eagles, and wetlands on July 16, 2010, during an on-site meeting with BIA Environmental Specialist, Jeff DesJarlais. These protected species and ecosystems were not found during the survey. Several ephemeral drainages were observed during the field survey; however, no wetlands, intermittent, or perennial waterbodies were observed within the drainage features. Therefore, no impacts to natural resources are anticipated as a result of construction activities.

A cultural resource inventory of this pipeline route was conducted by personnel of SWCA Environmental Consultants, using an intensive pedestrian methodology. Approximately 82.32 acres were inventoried between July 17 and August 3, 2010 (Lechert *et al.* 2010). Three archaeological sites were located or revisited. However, two sites had been so damaged by previous road construction that they lack the quality of integrity and are not eligible for inclusion on the National Register. One site 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 site can be and will be avoided. This determination was communicated to the THPO on September 29, 2010 and the THPO concurred on October 4, 2010.

Lechert, Stephanie, Thomas Witt, Michael Retter, Jason Burkard and Michelle Delmas

(2010) A Class I and Class III Cultural Resource Inventory of the Arrow Kodiak Two Shields Butte #14-21-33-15H Gathering Line, Fort Berthold Indian Reservation, Dunn County, North Dakota. SWCA Environmental Consultants for Arrow Pipeline, LLC, Tulsa, OK.

6. Potential Effects

Potential effects to cultural resource sites are the result of direct disturbance, and/or the loss, of sites eligible for the National Register of Historic Places; disturbance and loss of native vegetation and wildlife habitats; soil removal and mixing; and erosion during construction. However, potential effects as a result of the proposed action would be mitigated by surveying for and avoiding any eligible cultural resource sites within the proposed ROW, implementing a stormwater pollution prevention plan and best management practices, completing reclamation of the pipeline corridors with native grasses and other appropriate native vegetation, and stockpiling and re-using topsoil for reclamation.

Potential indirect effects include noise and other disturbances to wildlife during construction and the introduction of noxious weeds. Effects would be mitigated by avoidance of any federally listed threatened or endangered species or wetlands, avoidance 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 FONSI (October 2008).

Resource surveys and the supplementary assessment of the potential impacts of the proposed action were completed (July 2010); based on those surveys and the mitigation measures committed to by Kodiak, no significant impacts to natural and cultural resources are anticipated.

7. Applicable NEPA Document(s)

Environmental Assessment: Kodiak Oil & Gas (USA), Inc., Six Bakken Exploratory Wells at Three Locations: 16-8, 16-12, and 14-33 (October 2008).

8. Other Relevant Documentation

Environmental Assessment: Arrow Midstream Holdings East Mandaree Oil, Gas, and Water Gathering System (December 2009).

Retter, Michael, Jason Burkard, Michelle Delmas, and Stephanie Lechert. A Class I and Class III Cultural Resource Inventory of the Arrow Two Shields Butte #14-21-33-15H Gathering Line, Fort Berthold Indian Reservation, Dunn County, North Dakota. (September 2010)

9. NEPA Adequacy Criteria

This document has identified one previously prepared NEPA document, *Kodiak Oil & Gas (USA), Inc., Six Bakken Exploratory Wells at Three Locations: 16-8, 16-12, and 14-33 (October 2008)*, 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.

Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines (October 2010)

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 Gathering Pipelines Connecting the Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines (October 2010)



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115 Fourth Avenue S.E.
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

SEP 29 2010

Perry 'No Tears' Brady, THPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Brady:

We have considered the potential effects on cultural resources of the proposed Arrow gathering line in Dunn County, North Dakota. Approximately 82.32 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. Three archaeological sites (32DU1418, 32DU1461 and 32DU1534) were revisited or newly recorded, however, the former two sites have apparently been destroyed by previous road construction and are thus **not eligible** for inclusion on the National Register of Historic Places. Site 32DU1534 may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on 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 therefore reached a determination of **no historic properties affected** for this undertaking, as site 32DU1534 will be avoided. Catalogued as **BIA Case Number AAO-1840/TB/10**, the proposed undertaking, location, and project dimensions are described in the following report:

Lechert, Stephanie, Thomas Witt, Michael Retter, Jason Burkard and Michelle Delmas
(2010) A Class I and Class III Cultural Resource Inventory of the Arrow Kodiak Two Shields Butte #14-21-33-15H Gathering Line, 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. The Standard Conditions of Compliance will be adhered to.

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

Sincerely,

Regional Director

Enclosure

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

Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines (October 2010)



TRIBAL HISTORIC PRESERVATION

Mandan Hidatsa Arikara
Perry 'No Tears' Brady, Director.
404 Frontage Road,
New Town, North Dakota 58763
Ph/701-862-2474 fax/701-862-2490
pbrady@mhanation.com

October 4, 2010

Dr. Carson Murdy
BIA
Great Plains Regional Office
115 Fourth Avenue S, E,
Aberdeen, South Dakota 57401

RE: BIA Case Number AAO-1849/FB/10

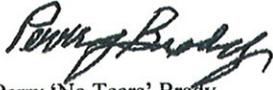
Mr. Murdy

After review of the documentation provided by your Office, the Mandan Hidatsa Arikara Nations Tribal Historic Preservation Office determines there will be 'No Adverse Affect/No Historic Properties Affected' to regard to any Pre and post-historic relics, artifacts or sacred In addition, cultural resources in the proposed Project area this Office *concurs with BIA Case number AAO-1739/FB/10*

Lecher, Stephanie, Thomas Witt, Michael Retter, Jason Burkard and Michelle Delmas (2010) A Class I and Class III cultural Resource Inventory of the Arrow Kodiak Two Shields Butte #14-21-33-15H Gathering Line, Fort Berthold Indian Reservation, Dunn County, North Dakota SWCA Environmental Consultants for Arrow Pipe Line, LLC, Tulsa, OK.

We respectfully request to be notified should any cultural/tribal issue or others arise as the Project progresses. If you have any questions or need additional information please feel free to contact this office at any time.

Sincerely,



Perry 'No Tears' Brady
Director of the Mandan Hidatsa, & Arikara Nation

Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines (October 2010)

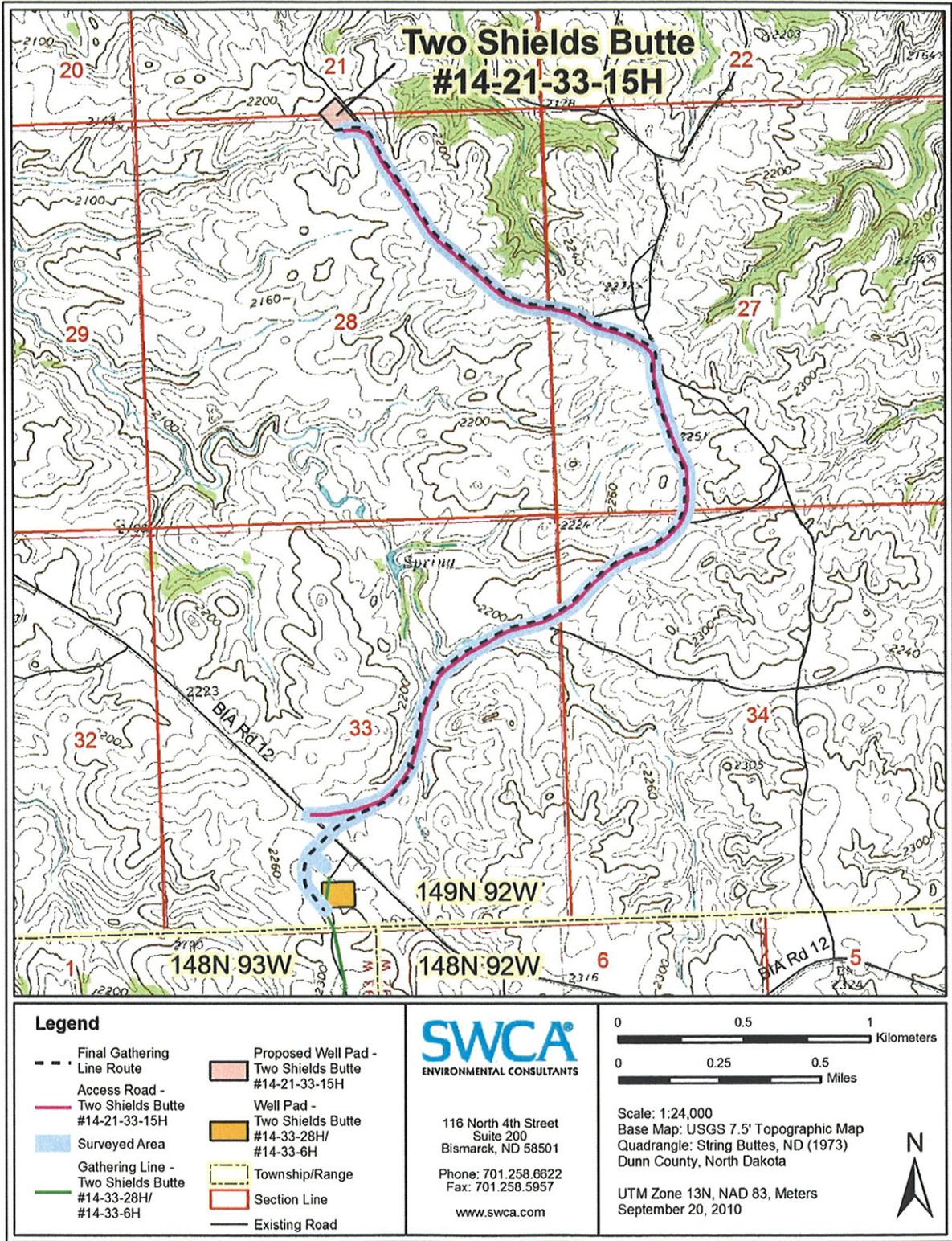


Figure 1. Proposed Two Shields Butte #14-21-33-15H gathering pipelines and associated well pad.

APPENDIX A

**Pipeline Layout and Pipeline Right-of-Way
for the Two Shields Butte #14-21-33-15H Gathering Lines**

Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines (October 2010)

ARROW PIPELINE, LLC

**GATHERING ALTERNATE PIPELINE
RIGHT-OF-WAY ON TRIBAL LANDS
(For TWO SHIELDS BUTTE #14-21-33-15H)**

LOCATED IN
SECTIONS 27, 28, 33 & 34, T149N, R92W, 5th P.M.,
DUNN COUNTY, NORTH DAKOTA

RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
639A	3785.00	4.346	229.45
T1560	312.67	0.356	18.95
T636A	3431.44	3.939	207.97
T636A	2162.53	2.483	131.09
640A	2430.18	2.789	147.28
641A	3263.44	3.746	197.78
TOTAL	15396.66	17.661	932.52

ALTERNATE PIPELINE RIGHT-OF-WAY DESCRIPTION ON TRIBAL LANDS

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 28, T149N, R92W, 5th P.M., WHICH BEARS S85°41'15"E 2626.41' FROM THE NORTHWEST CORNER OF SAID SECTION 28, THENCE N82°4'45"E 208.04'; THENCE S98°00'00"E 100.00'; THENCE S78°00'00"E 40.00'; THENCE S74°27'43"E 30.48'; THENCE S63°59'00"E 33.66'; THENCE S03°00'00"E 40.00'; THENCE S33°00'00"E 40.00'; THENCE S26°00'00"E 400.00'; THENCE S35°00'00"E 243.00'; THENCE S30°00'00"E 203.00'; THENCE S30°00'00"E 350.00'; THENCE S33°00'00"E 280.00'; THENCE S37°00'00"E 80.00'; THENCE S10°00'00"E 136.96'; THENCE S9°00'00"E 120.00'; THENCE S84°00'00"E 40.00'; THENCE S10°00'00"E 120.00'; THENCE S82°00'00"E 226.84' TO A POINT ON THE EAST LINE OF THE 1/4 OF SAID SECTION 28, WHICH BEARS N03°03'45"W 89.81' FROM THE EAST LINE OF THE 1/4 OF SAID SECTION 28, THENCE S82°00'00"E 731.16'; THENCE S79°00'00"E 180.00'; THENCE S83°00'00"E 79.51' TO A POINT ON THE SOUTH LINE OF THE SW 1/4 NW 1/4 OF SECTION 27, T149N, R92W, 5th P.M., WHICH BEARS N89°53'09"E 303.67' FROM THE WEST CORNER OF SAID SECTION 27, THENCE S89°00'00"E 80.49'; THENCE S59°00'00"E 300.00'; THENCE S70°00'00"E 40.00'; THENCE S75°00'00"E 80.00'; THENCE S55°31'14"E 577.00' TO 280.00'; THENCE S83°00'00"E 120.00'; THENCE S89°00'00"E 260.00'; THENCE S55°31'14"E 303.00' TO 80.00'; THENCE S01°40'00" THENCE S27°00'00"E 40.00'; THENCE S15°00'00"E 40.00'; THENCE 23.19'; THENCE S39°00'00"E 40.00'; THENCE S27°00'00"E 40.00'; THENCE S15°00'00"E 40.00'; THENCE S26°00'00"E 120.00'; THENCE S01°40'00" THENCE WEST 81.00'; THENCE SOUTH 192.00'; THENCE S22°00'00"E 120.00'; THENCE S16°48'00"E 698.77'; THENCE S25°00'00"E 180.00'; THENCE SOUTH 300.00'; THENCE S25°30'00"W 120.00'; THENCE S10°00'00"W 45.89' TO A POINT ON THE SOUTH LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 27, THENCE S10°00'00"W 120.00'; THENCE S25°30'00"W 100.00'; THENCE S34°46'32"W 126.00'; THENCE S47°00'00"W 140.00'; THENCE S55°00'00"W 200.00'; THENCE S64°00'00"W 120.00'; THENCE S79°00'00"W 244.00'; THENCE S85°00'00"W 120.00'; THENCE S89°00'00"W 280.00'; THENCE S90°00'00"W 120.00'; THENCE S41°11'49"W 242.85'; THENCE S45°35'14"W 126.98'; THENCE S77°00'00"W 120.00'; THENCE S63°30'00"W 92.20' TO A POINT ON THE WEST LINE OF THE NW 1/4 NW 1/4 OF SECTION 34, T149N, R92W, 5th P.M., WHICH BEARS S00°25'10"E 1258.42' FROM THE NORTHWEST CORNER OF SAID SECTION 34, THENCE S83°30'00"W 157.80'; THENCE S70°00'00"W 20.00'; THENCE S78°00'00"W 300.00'; THENCE S74°00'00"W 120.00'; THENCE S62°50'59"W 595.37'; THENCE S55°30'00"W 375.00'; THENCE S43°00'00"W 80.00'; THENCE S32°30'00"W 80.00'; THENCE S25°00'00"W 440.00'; THENCE S22°00'00"W 40.00'; THENCE S10°00'00"W 122.01' TO A POINT ON THE SOUTH LINE OF THE SW 1/4 NE 1/4 OF SECTION 33, T149N, R92W, 5th P.M., WHICH BEARS N16°58'00"E 2762.46' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 33, THENCE S10°00'00"W 157.99'; THENCE S17°00'00"W 343.00'; THENCE S24°00'00"W 80.00'; THENCE S45°21'08"E 57.23'; THENCE S57°00'00"W 80.00'; THENCE S59°00'00"W 710.00'; THENCE S43°33'07"W 273.52'; THENCE S87°17'14"W 126.98'; THENCE S65°00'00"W 40.00'; THENCE S60°00'00"W 80.00'; THENCE S45°00'00"W 482.00'; THENCE S36°00'00"W 280.00'; THENCE S24°00'00"W 150.00'; THENCE S12°00'00"W 40.00'; THENCE SOUTH 165.00'; THENCE S45°30'00"E 40.00'; THENCE S22°30'00"E 40.00'; THENCE S34°30'00"E 325.00'; THENCE S48°30'00"E 40.00'; THENCE N88°30'00"E 25.00' TO A POINT IN THE SE 1/4 SW 1/4 OF SAID SECTION 33, WHICH BEARS N63°6'21"W 563.07' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 33. 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 17.66 ACRES MORE OR LESS.

CERTIFICATE
I HEREBY CERTIFY THAT THIS IS A CORRECTLY REPRESENTATIVE WORK
PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND IS
TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



Troy Jensen
REGISTERED LAND SURVEYOR
STATE OF NORTH DAKOTA

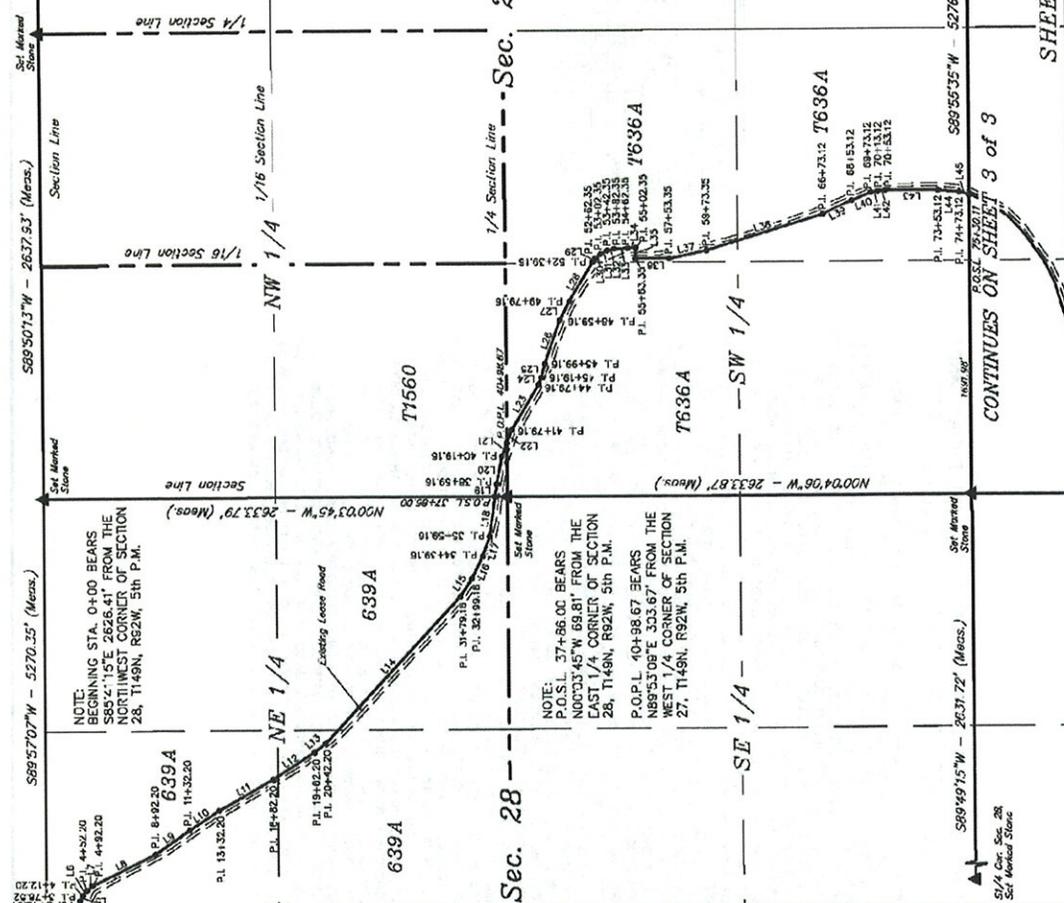
UNTAH ENGINEERING & LAND SURVEYING	
65 SOUTH - 200 EAST • (405) 769-1017	
VERNAL, UTAH - 84078	
SCALE	DATE
1" = 600'	09-17-10
PARTY	REVISIONS
A.K. D.P.	G.L.O. PLAT
WEATHER	FILE
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SHEET 1 OF 3

Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines (October 2010)

ARROW PIPELINE, LLC

**GATHERING ALTERNATE PIPELINE
RIGHT-OF-WAY ON TRIBAL LANDS
(For TWO SHIELDS BUTTE #14-21-33-15H)
LOCATED IN
SECTIONS 27, 28, 33 & 34, T149N, R92W, 5th P.M.,
DUNN COUNTY, NORTH DAKOTA**



LINE	BEARING	LENGTH
L1	N82°14'45"E	208.04'
L2	S89°00'00"E	100.00'
L3	S73°00'00"E	40.00'
L4	S74°27'43"E	30.48'
L5	S83°59'00"E	33.68'
L6	S90°00'00"E	40.00'
L7	S38°00'00"E	400.00'
L8	S26°00'00"E	240.00'
L9	S33°30'00"E	200.00'
L10	S33°30'00"E	350.00'
L11	S33°00'00"E	280.00'
L12	S33°00'00"E	80.00'
L13	S37°00'00"E	1136.96'
L14	S46°58'13"E	120.00'
L15	S87°00'00"E	140.00'
L16	S84°00'00"E	120.00'
L17	S70°00'00"E	220.00'
L18	S82°00'00"E	226.84'
L19	S82°00'00"E	73.16'
L20	S79°00'00"E	160.00'
L21	S89°00'00"E	79.51'
L22	S89°00'00"E	80.49'
L23	S59°00'00"E	300.00'
L24	S70°00'00"E	40.00'
L25	S75°00'00"E	80.00'
L26	S71°00'00"E	280.00'
L27	S63°00'00"E	120.00'
L28	S59°00'00"E	280.00'
L29	S65°23'4"E	23.19'
L30	S39°00'00"E	40.00'
L31	S27°00'00"E	40.00'
L32	S15°00'00"E	40.00'
L33	S03°00'00"E	80.00'
L34	S03°00'00"E	80.00'
L35	N63°	61.00'
L36	SOUTH	190.00'
L37	S12°00'00"E	220.00'
L38	S16°48'00"E	689.77'
L39	S25°00'00"E	180.00'
L40	S22°00'00"E	120.00'
L41	S10°00'00"E	40.00'
L42	S05°00'00"E	40.00'
L43	SOUTH	300.00'
L44	S05°30'00"W	120.00'
L45	S15°30'00"W	56.99'

NOTE:
BEGINNING STA. 0+00 BEARS
S85°2'15"E 2626.41' FROM THE
NORTHWEST CORNER OF SECTION
28, T149N, R92W, 5th P.M.

NOTE:
P.O.P.L. 37+86.00 BEARS
N00°3'45"W 69.81' FROM THE
EAST 1/4 CORNER OF SECTION
28, T149N, R92W, 5th P.M.

NOTE:
P.O.P.L. 40+88.67 BEARS
N85°53'08"E 303.67' FROM THE
WEST 1/4 CORNER OF SECTION
27, T149N, R92W, 5th P.M.

NOTE:
I HEREBY CERTIFY THAT THIS PLAN CORRECTLY REPRESENTS WORK
PERFORMED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND
TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

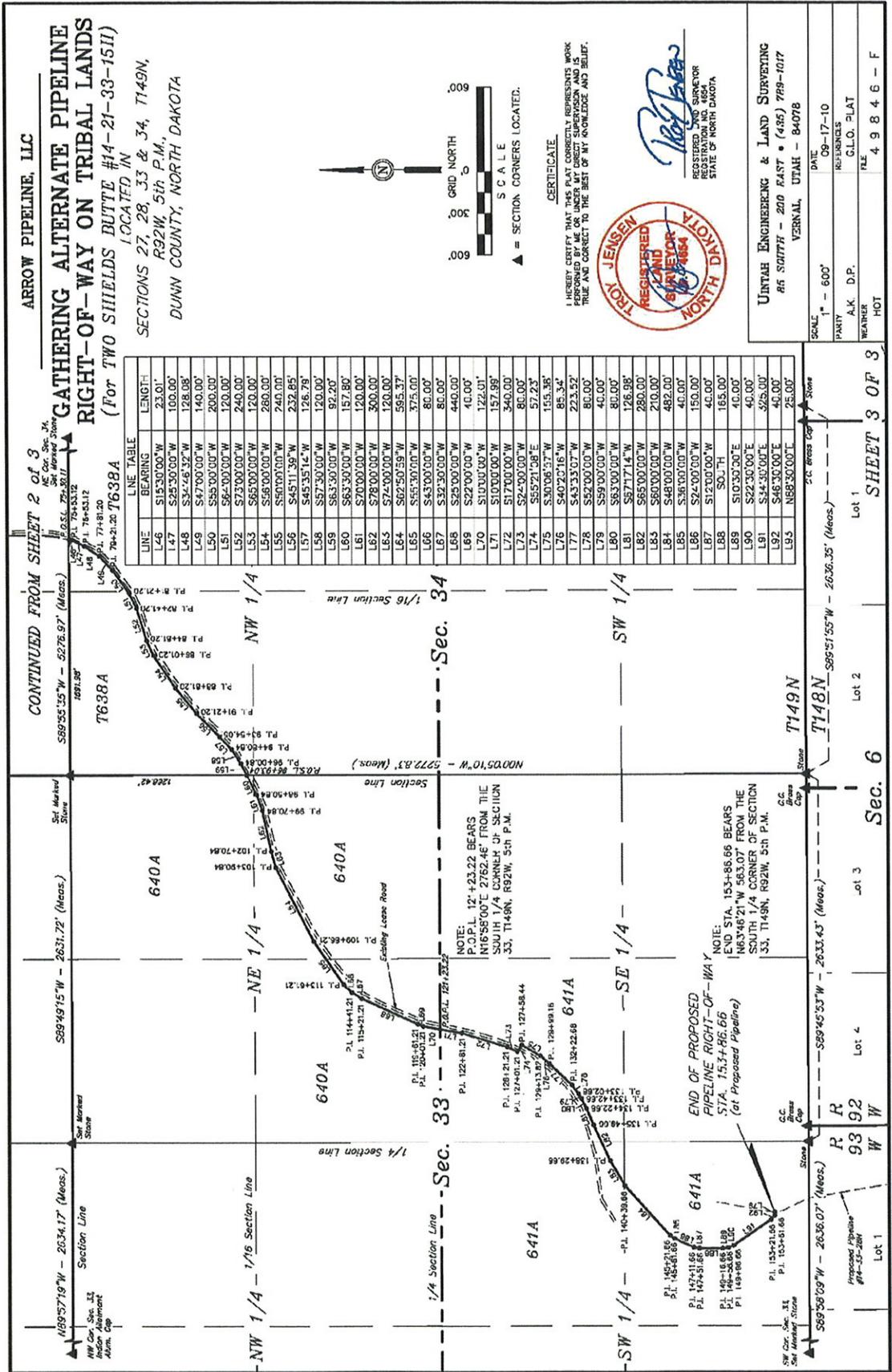
CERTIFICATE
REGISTERED LAND SURVEYOR
STATE OF NORTH DAKOTA

UNTAH ENGINEERING & LAND SURVEYING
80 SOUTH - 200 EAST • (405) 789-1077
VERNAL, UTAH - 84078

SCALE 1" = 600'
DATE 09-17-10
PARTY SH. McHardy Show
REFERENCES G.L.O. PLAT
DRAWER 49846-E
SHEET 2 OF 3

CONTINUES ON SHEET 3 OF 3

Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting the Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines (October 2010)



ARROW PIPELINE, LLC
GATHERING ALTERNATE PIPELINE
RIGHT-OF-WAY ON TRIBAL LANDS
(For Two Shields Butte #14-21-33-15H)
 SECTIONS 27, 28, 33 & 34, T149N,
 R28W, 5th P.M.,
 DUNN COUNTY, NORTH DAKOTA

LINE	BEARING	LENGTH
L46	S15°30'00"W	23.01'
L47	S25°30'00"W	100.00'
L48	S34°46'32"W	128.08'
L49	S47°00'00"W	140.00'
L50	S55°00'00"W	200.00'
L51	S64°00'00"W	120.00'
L52	S73°00'00"W	240.00'
L53	S65°00'00"W	120.00'
L54	S56°00'00"W	280.00'
L55	S40°00'00"W	240.00'
L56	S45°11'36"W	232.85'
L57	S45°35'12"W	126.79'
L58	S57°30'00"W	120.00'
L59	S63°30'00"W	92.20'
L60	S63°30'00"W	157.80'
L61	S70°00'00"W	120.00'
L62	S78°00'00"W	300.00'
L63	S74°00'00"W	120.00'
L64	S62°50'59"W	595.37'
L65	S55°30'00"W	375.00'
L66	S43°00'00"W	80.00'
L67	S32°30'00"W	80.00'
L68	S25°00'00"W	440.00'
L69	S22°00'00"W	40.00'
L70	S10°00'00"W	122.03'
L71	S10°00'00"W	157.98'
L72	S17°00'00"W	340.00'
L73	S2°00'00"W	80.00'
L74	S55°21'36"E	97.23'
L75	S30°06'57"W	155.35'
L76	S40°20'16"W	85.34'
L77	S43°33'07"W	223.52'
L78	S52°00'00"W	80.00'
L79	S59°00'00"W	40.00'
L80	S63°00'00"W	80.00'
L81	S67°17'14"W	126.98'
L82	S65°00'00"W	280.00'
L83	S60°00'00"W	210.00'
L84	S48°00'00"W	482.00'
L85	S36°00'00"W	40.00'
L86	S24°00'00"W	150.00'
L87	S12°00'00"W	40.00'
L88	S0.71°	165.00'
L89	S10°32'00"E	40.00'
L90	S22°30'00"E	40.00'
L91	S44°30'00"E	526.00'
L92	S46°30'00"E	40.00'
L93	N65°30'00"E	25.00'

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
 REGISTRATION NO. 4664
 STATE OF NORTH DAKOTA

UNTANH ENGINEERING & LAND SURVEYING
 86 S SMITH - 200 EAST • (435) 789-1017
 VERNAL, UTAH - 84078

SCALE	1" = 600'	DATE	09-17-10
PARTY	A.K. D.P.	REVISIONS	
MEASUR		FILE	4 9 8 4 6 - F
HOT			

SHEET 3 OF 3

Notice of Availability and Appeal Rights

Arrow Pipeline LLC: Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to Addendum to Environmental Assessment to Authorize Land Use for Gathering Pipelines Connecting Two Shields Butte #14-21-33-15H Well Pad to the Two Shields Butte #14-33-28H Gathering Pipelines as shown on the attached map. Construction by Arrow Pipeline LLC is expected to begin in the Fall of 2010.

An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Howard Bemer, Superintendent at 701-627-4707 for more information and/or copies of the EA and the Finding of No Significant Impact (FONSI).

The FONSI is only a finding on environmental impacts – it is not a decision to proceed with an action and *cannot* be appealed. BIA's decision to proceed with administrative actions *can* be appealed until November 12, 2010 by contacting:

**United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Indian Appeals
801 N. Quincy Street, Suite 300, Arlington, Va 22203.**

Procedural details are available from the BIA Fort Berthold Agency at 701-627-4707.

Project location.

