



ANCHOR POINT ENERGY, LLC

February 18, 2010

Katie McCafferty
U. S. Army Corps of Engineers, Alaska District
Benco Building
805 Frontage Road, Suite 200C
Kenai, Alaska 99611-7755

Re: Natural Gas Pipeline Construction and Operation
Anchor Point Energy, LLC
Kenai Peninsula Borough, Alaska

Dear Ms. McCafferty:

Enclosed is an application for Anchor Point Energy, LLC to construct and operate an eight mile long natural gas pipeline located in the Kenai Peninsula Borough near Anchor Point, Alaska. The pipeline is intended to transport natural gas from the North Fork Unit and deliver it to a sales pipeline operated by Enstar Natural Gas Company. The upland areas of the pipeline are intended to be constructed in late summer 2010 and the wetlands portions of the pipeline is intended to be constructed during winter months and be completed in early 2011.

The application, a mitigation statement, a Coastal Project Questionnaire, and other applicable information are attached to this letter.

Should you have any questions, you can call either me at 303-623-1821 or Bob Britch at 907-243-7716.

Sincerely,

Ed Teng
Vice President-Engineering

18. Nature of Activity (Description of project, include all features)

Excavation of a 4.5 ft wide trench, placement of a natural gas pipeline in the trench, and refilling and restoration of the construction site. Sand and gravel bedding materials may be placed at the bottom of the trench to support the pipeline, and sandbags may be used to weight down the pipe in areas of high water table. There will be no permanent disturbances to wetland areas.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The project is intended to transport natural gas from the North Fork Unit to a sales pipeline located at Anchor Point.

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Construction operations will require the temporary removal of natural soils in order to bury the natural gas pipeline. The construction area will be restored to natural conditions to the extent possible once the construction activities have been completed.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

Approximately 40,000 cubic yards of clean soils will be excavated in order to place the gas pipeline. Based on available information, the soils include organic soils, silts, sands and gravels.

22. Surface Area in acres of Wetlands or Other Waters Filled (see instructions)

Approximately 5.7 miles of wetlands will be crossed. Trees will be removed from an estimated 35 acres of wetlands to provide a 50 foot wide corridor for pipeline construction. A trench will be constructed on approximately 3 acres of land in order to place the pipeline. There are no planned access roads or other permanent features that would cause wetlands to be permanently lost.

23. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

24. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

Land in the immediate area (including project area) is primarily owned by:

Alaska State Pipeline Coordinator's Office
411 West 4th Avenue, Second Floor
Anchorage, Alaska 99501

Kenai Peninsula Borough
144 North Brinkley
Soldotna, Alaska 99669

Private Residents:
Joseph Gregorie, Jr.
Lyle M. Smith

Alaska Dept. of Highways & Public Facilities
4111 Aviation Avenue
PO Box 196900
Anchorage, Alaska 99519-6900

Cook Inlet Region, Inc. (CIRI)
P.O. Box 93330
Anchorage, Alaska 99509-3330

25. List of Other Certifications or Approvals/Denials Received from other Federal, State or Local Agencies for Work Described in This Application.

AGENCY	TYPE OF APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
ADNR-SPCO	Pipeline ROW Lease Application	N/A	February 2010	--	--
ADNR-DCOM	ACMP Review	N/A	February 2010	--	--
ADNR-SHPO	Cultural Resources Review	N/A	February 2010	--	--
ADF&G	Habitat Permit	N/A	February 2010	--	--
Kenai Peninsula Boro.	Development Permit	N/A	February 2010	--	--

*Would include but is not restricted to zoning, building and flood plain permits

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

2/18/10

DATE

SIGNATURE OF AGENT

2/18/10

DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

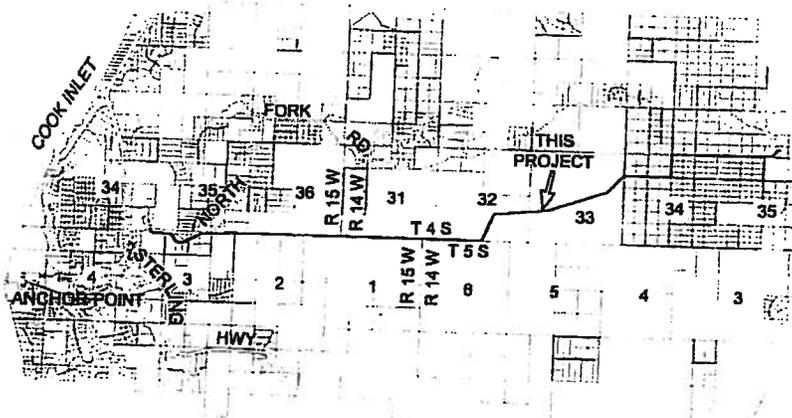
NORTH FORK GAS GATHERING LINE ANCHOR POINT ENERGY, LLC



VICINITY MAP
SCALE: 1" = 2 MILES



PROJECT LOCATION



LEGEND

	SECTION CORNER MONUMENT
	CREEK / RIVER FROM ARIEL / GIS
	TREE LINE
	CREEK / RIVER (SURVEYED)
	SECTION LINE
	CONTOUR LINE
	WETLAND
	GAS LINE
	DRAINAGE IMPACT
	WETLAND IMPACT

GENERAL NOTES

1. BASIS OF HORIZONTAL COORDINATES ARE ALASKA STATE PLANE NAD 83 ZONE 4 EPOCH 2003 DETERMINED BY AN NGS OPUS SOLUTION FROM CORS BASE STATIONS "KEN5", "TSEA" AND "KOD5" OBSERVED DEC. 13, 2007 ON NF-1 3 1/2" ALUM. CAP SET N: 2121137.137 E: 1339704.533 ELEV. 656.89'
- 2) BASIS OF ELEVATION IS NGS BENCHMARK N86 TT0195 ELEV. 180.84 FT. NAVD88 DATUM.
- 3) SOUTHEAST CORNER SEC. 26 COORDINATES DETERMINED FROM DIRECT SURVEY TIE TO THE TO EXISTING BLM SECTION CORNER TIE PER HM91-57 AND NOT THE PROTRACTED SECTION CORNER VALUES.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER
2-3	OVERVIEW
4-8	GAS LINE PLAN VIEW
9-13	CREEK/RIVER CROSSINGS
14	NORTH FORK CROSSING PROFILE
15-17	DETAILS
18	TABLE



Consulting Inc

ENGINEERING - TESTING
SURVEYING - MAPPING
P.O. BOX 468
SOLDOTNA, AK. 99669
VOICE: (907) 283-4218
FAX: (907) 283-3265
WWW.MCLANECG.COM

LOCATION

WEST END: SE 1/4 SEC 34, T4S, R15W, S.M.
EAST END: SE 1/4 SEC 26, T4S, R14W, S.M.

PURPOSE

NORTH FORK GAS GATHERING LINE

APPLICANTS

ANCHOR POINT ENERGY, LLC

1421 BLAKE, DENVER, CO 80202

REVISION:

DATE: 2/10/10

DRAWN BY: BGG

SCALE: 1" = 2 MILES

PROJECT NO. 063104

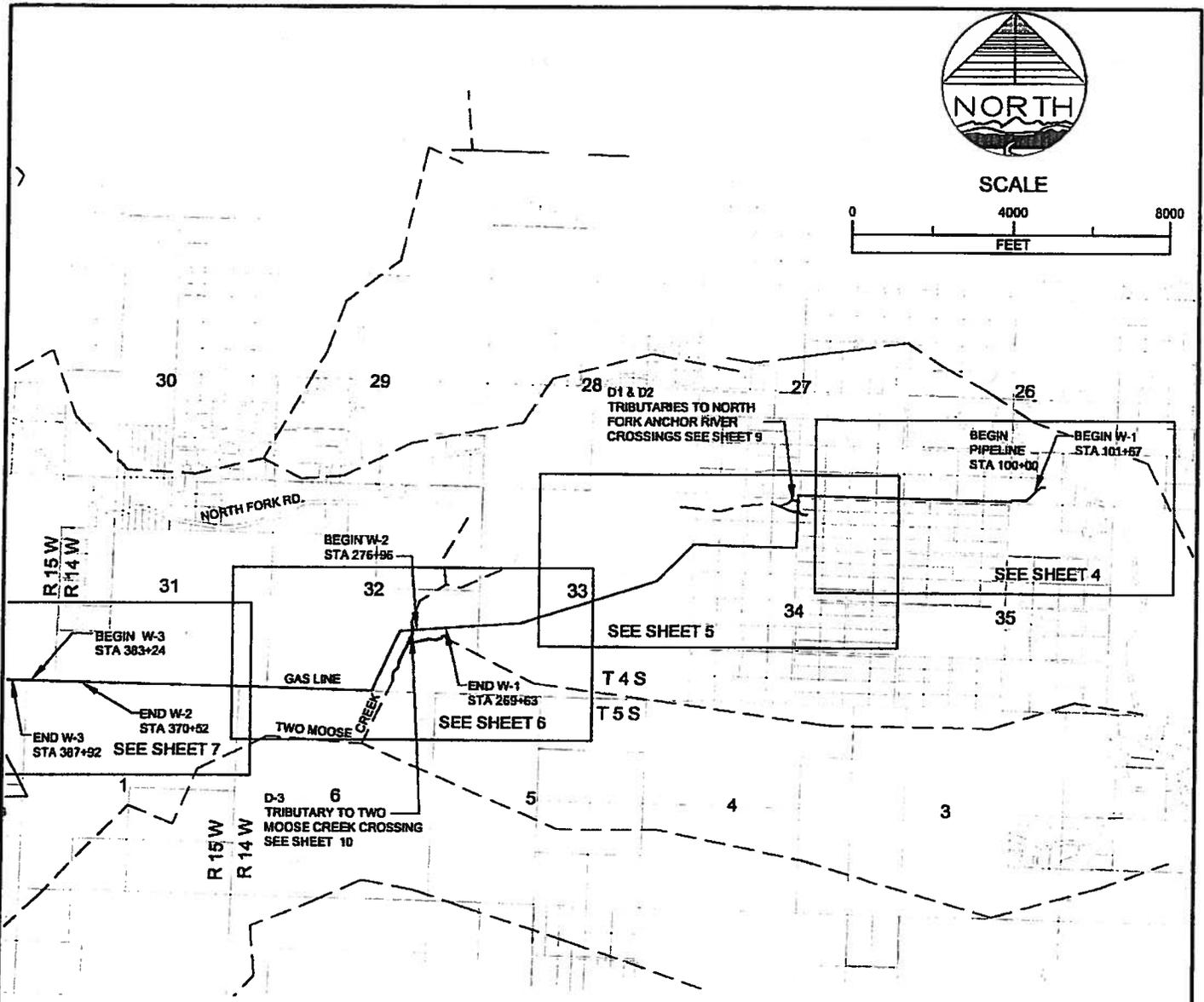
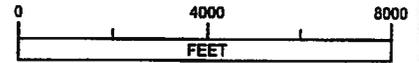
BOOK NO. 7-20

SHEET

1 of 18



SCALE



NOTES & PIPELINE STATION TABLE

WETLAND SECTION	STATIONING	LENGTH
W-1	101+67 - 269+63	1676 LF
W-2	276+96 - 370+52	9356 LF
W-3	383+24 - 387+92	468 LF
W-4	391+75 - 409+10	1735 LF
W-5	423+63 - 432+36	873 LF
W-6	435+80 - 437+45	155 LF
W-7	472+14 - 480+86	872 LF



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APPLICANTS

ANCHOR POINT ENERGY, LLC
 1421 BLAKE, DENVER, CO 80202

REVISION -

DATE: 2/10/10

DRAWN BY: BGG

SCALE: 1"=4000'

PROJECT NO. 093104

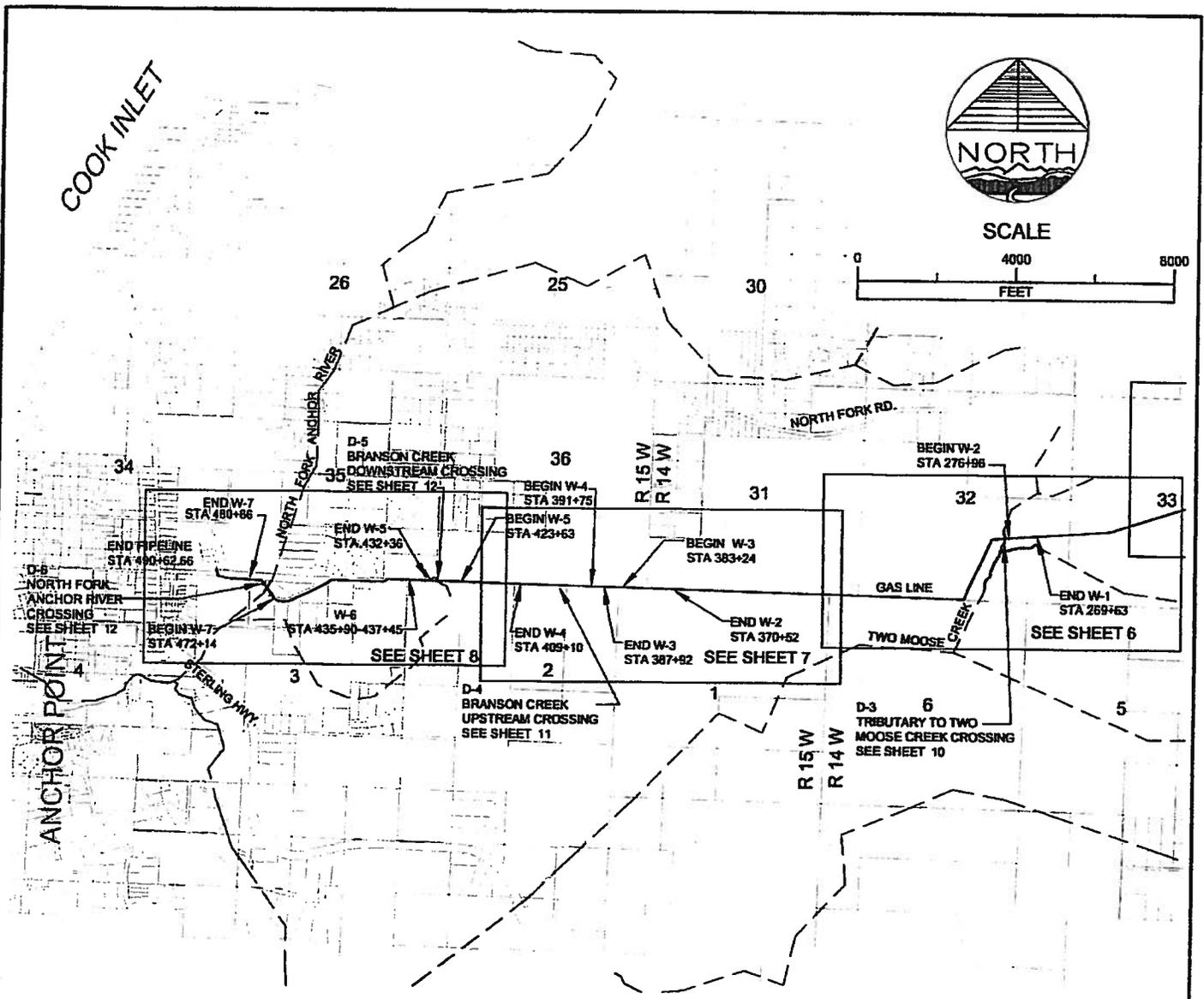
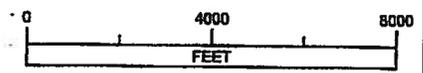
BOOK NO. 7-29

SHEET

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SCALE



NOTES & PIPELINE STATION TABLE

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W-2	276+86 - 370+52	9356 LF
W-3	383+24 - 387+92	468 LF
W-4	391+75 - 409+10	1735 LF
W-5	423+63 - 432+36	873 LF
W-6	435+90 - 437+45	155 LF
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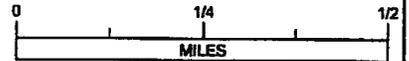
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APPLICANTS	ANCHOR POINT ENERGY, LLC 1421 BLAKE, DENVER, CO 80202

REVISION:	-
DATE:	2/10/10
DRAWN BY:	BGB
SCALE:	1"=4000'
PROJECT NO.:	093104
BOOK NO.:	7-29
SHEET	3 of 18



SCALE



SECTION 27

NORTH FORK RD

SECTION 26

180+00

160+00

150+00

140+00

130+00

120+00

110+00

100+00

BEGIN W-1
STA 101+67

D-1 (SHT. 9)
STA 164+66

D-2 (SHT. 9)
STA 167+14

AND CART RD

SECTION 35

NOTES

1. WETLAND LIMITS PER U.S. FISH AND WILDLIFE SERVICE'S NATIONAL WETLAND INVENTORY



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APPLICANTS

ANCHOR POINT ENERGY, LLC

1421 BLAKE, DENVER, CO 80202

REVISION: -

DATE: 2/10/10

DRAWN BY: BGB

SCALE: 1" = 1/4 MILE

PROJECT NO. 063104

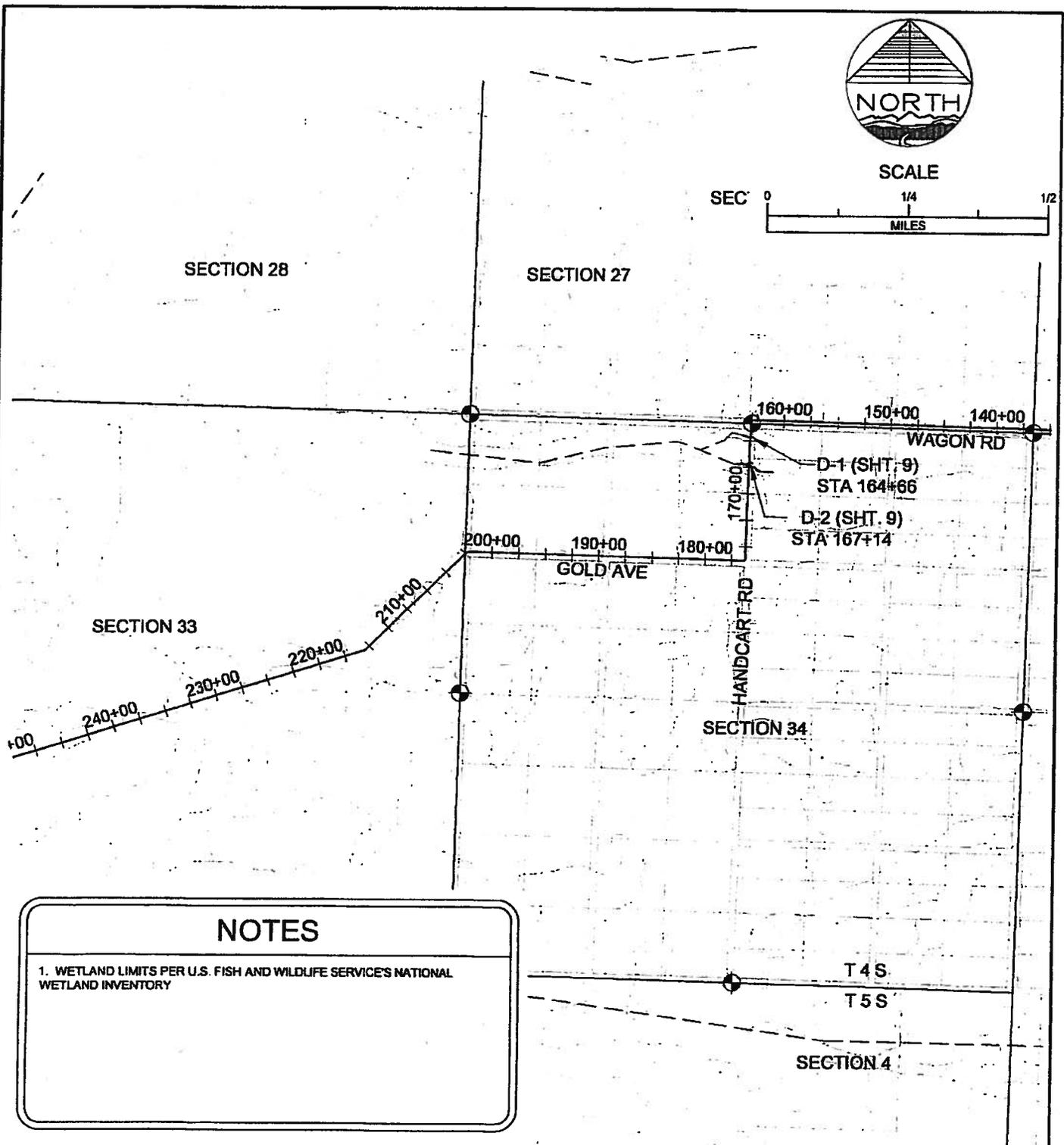
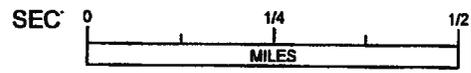
BOOK NO. 7-20

SHEET

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SCALE



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1. WETLAND LIMITS PER U.S. FISH AND WILDLIFE SERVICE'S NATIONAL WETLAND INVENTORY

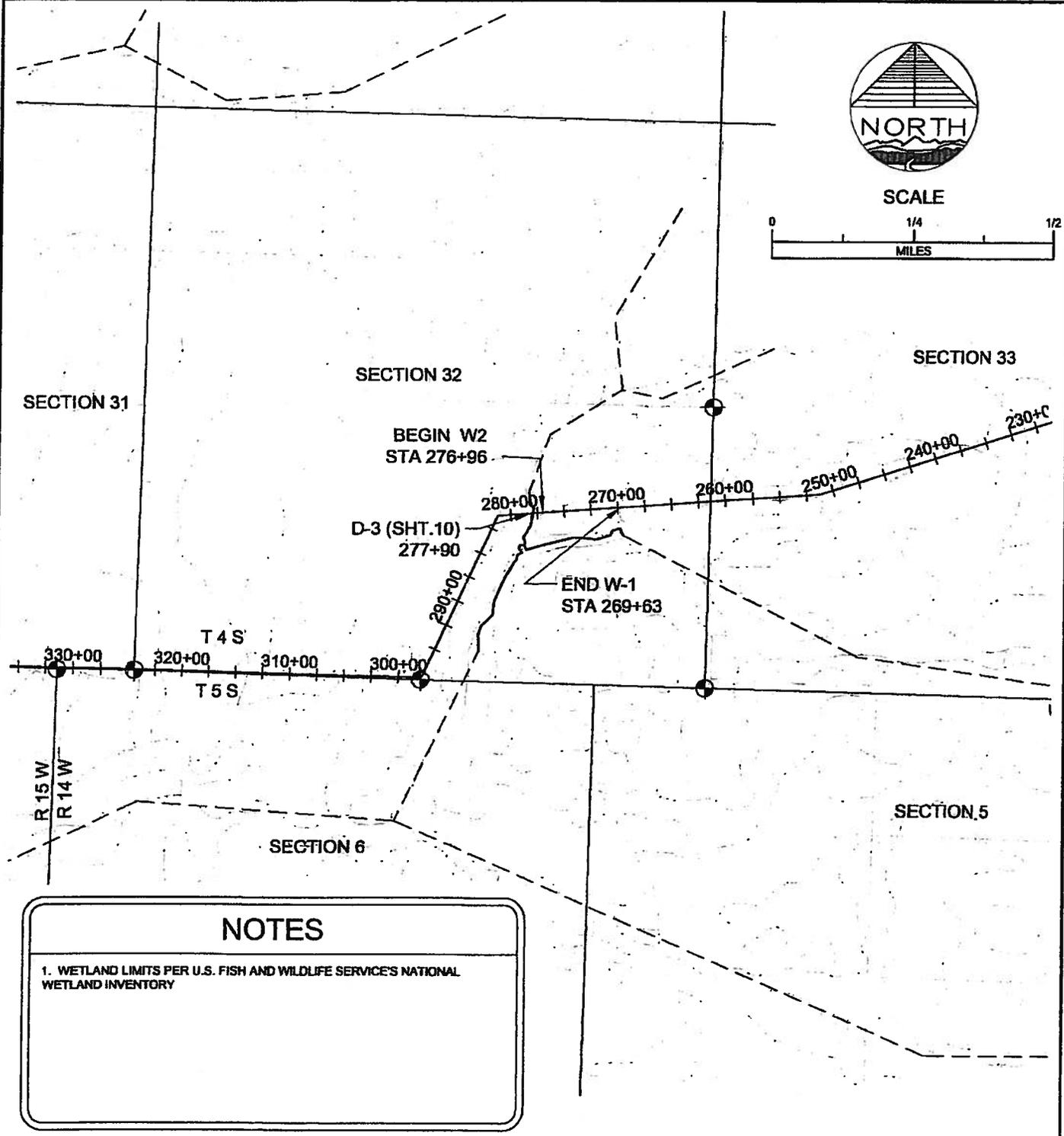
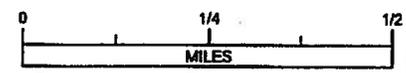


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PURPOSE	NORTH FORK GAS GATHERING LINE	DATE: 2/10/10
APPLICANTS	ANCHOR POINT ENERGY, LLC	DRAWN BY: BGB
	1421 BLAKE, DENVER, CO 80202	SCALE: 1" = 1/4 MILE
		PROJECT NO. 083104
		BOOK NO. 7-29
		SHEET 5 OF 18



SCALE



NOTES

1. WETLAND LIMITS PER U.S. FISH AND WILDLIFE SERVICE'S NATIONAL WETLAND INVENTORY

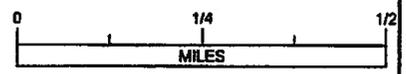


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		PROJECT NO: 063104
		BOOK NO: 7-29
		SHEET 6 OF 18



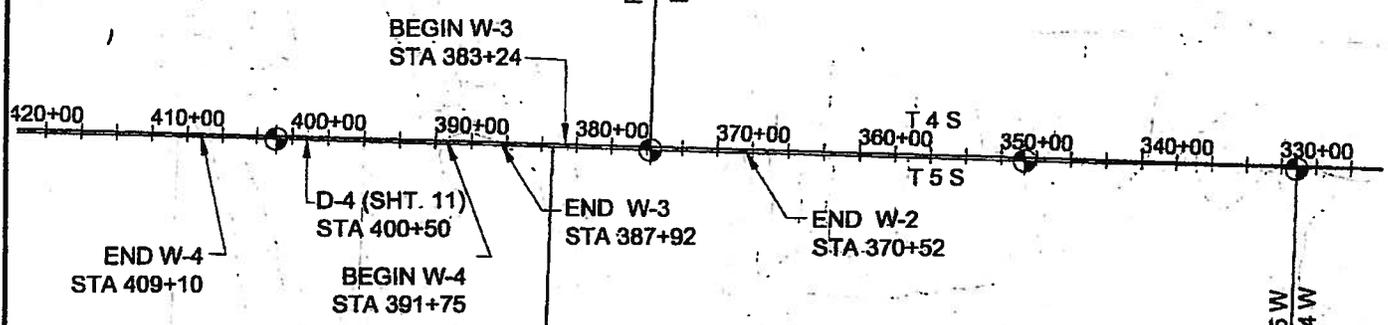
SCALE



SECTION 36

SECTION 31

R 15 W
R 14 W



SECTION 2

SECTION 1

NOTES

1. WETLAND LIMITS PER U.S. FISH AND WILDLIFE SERVICES NATIONAL WETLAND INVENTORY



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PURPOSE

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APPLICANTS

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1421 BLAKE, DENVER, CO 80202

REVISION: -

DATE: 2/10/10

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SCALE: 1" = 1/4 MILE

PROJECT NO. 083104

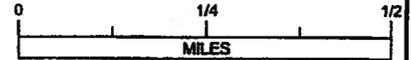
BOOK NO. 7-20

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SCALE



SECTION 34

SECTION 35

SECTION 36

END W-5
STA 432+36

END W-7
STA 480+86

OWNER - PRIVATE

D-5 (SHT. 12)
STA 429+82

NORTH FORK RD
T 4 S
450+00
T 5 S

D-6 (SHT. 13)
475+38

W-6
STA 435+90-437+45

BEGIN W-5
STA 423+83

SECTION 4

BEGIN W-7 STA
472+14

STERLING HWY.

SECTION 3

SECTION 2

NOTES

1. WETLAND LIMITS PER U.S. FISH AND WILDLIFE SERVICE'S NATIONAL WETLAND INVENTORY



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REVISION: -

DATE: 2/18/10

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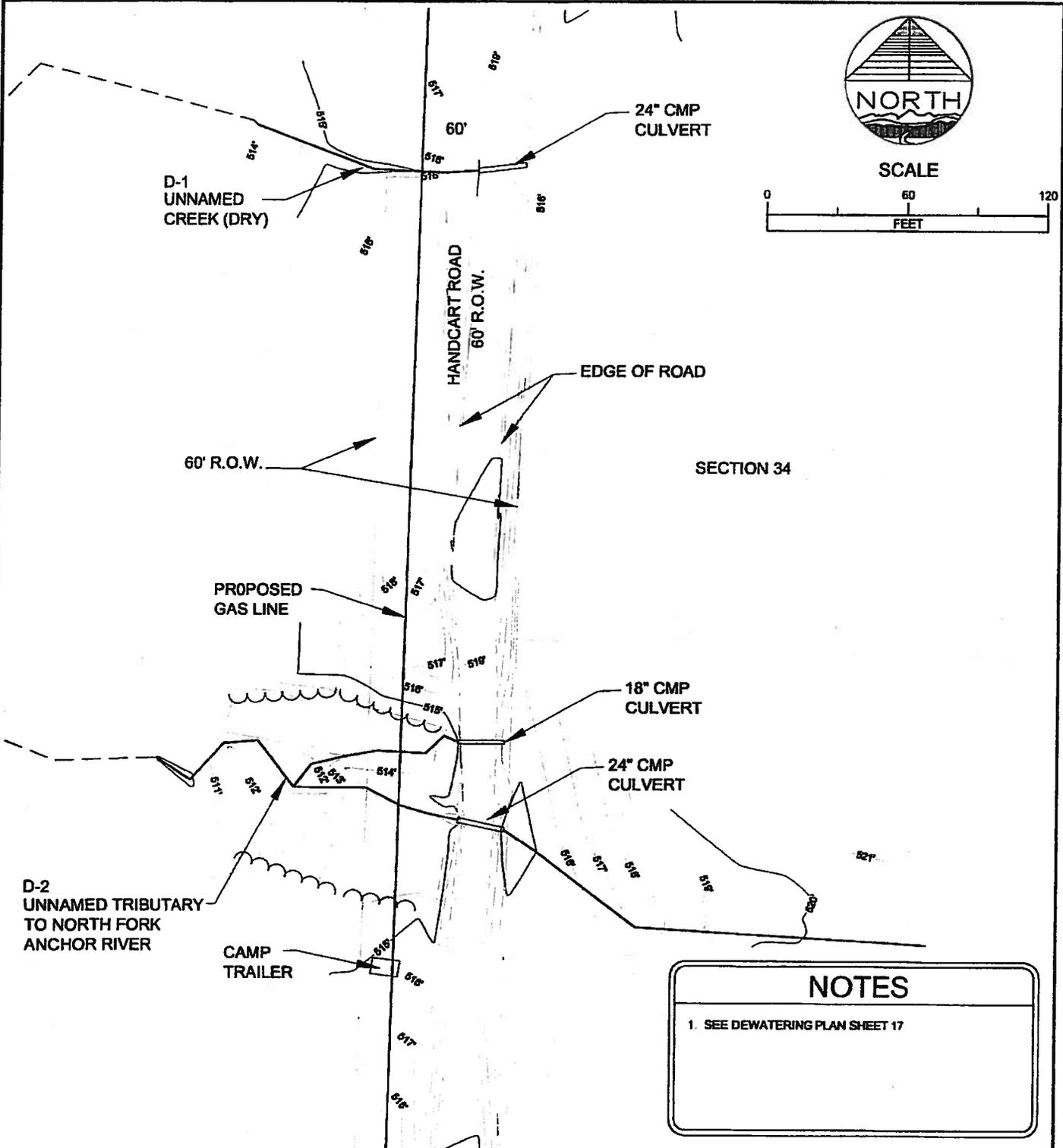
SCALE: 1" = 1/4 MILE

PROJECT NO. 063104

BOOK NO. 7-20

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NOTES

1. SEE DEWATERING PLAN SHEET 17



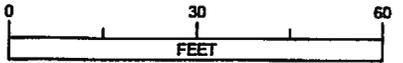
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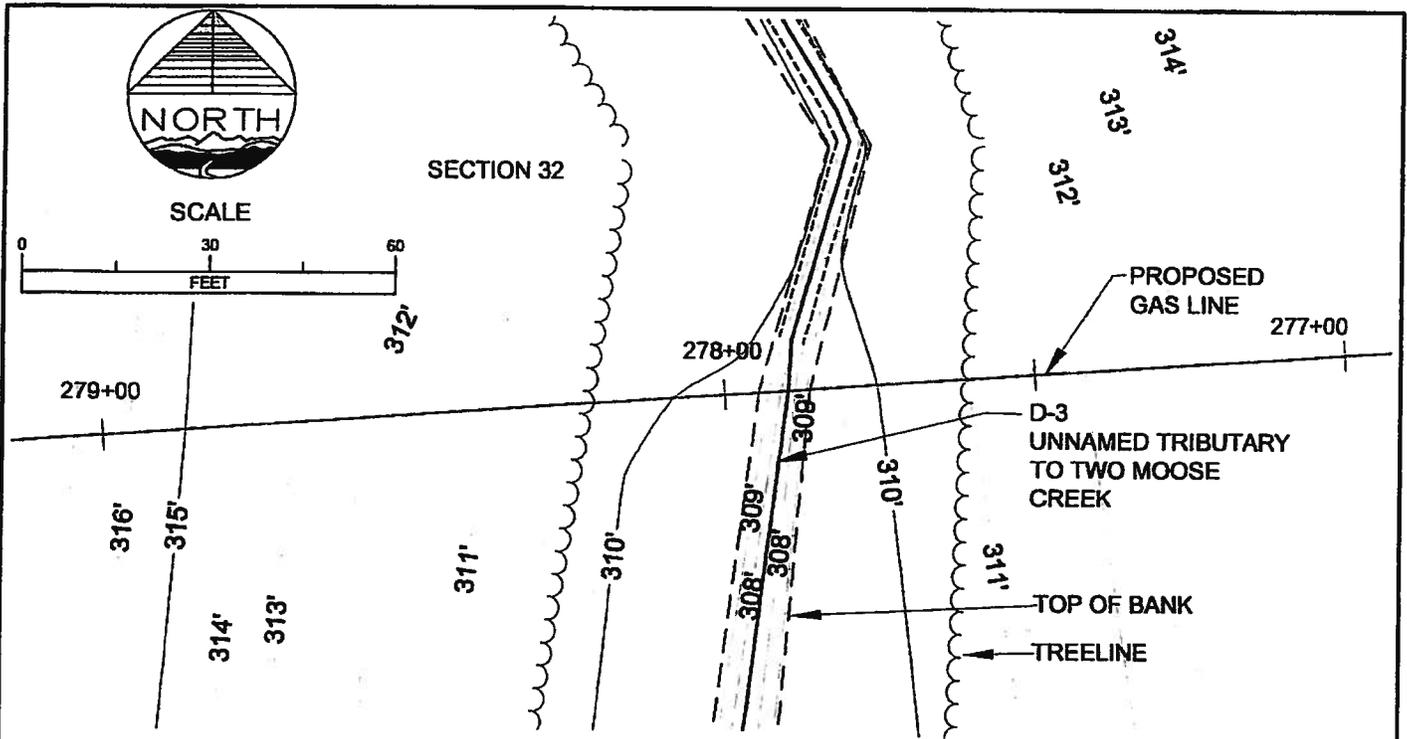
LOCATION	WEST END: SE 1/4 SEC 34, T4S, R15W, S.M. EAST END: SE 1/4 SEC 26, T4S, R14W, S.M.	REVISION: -
PURPOSE	NORTH FORK GAS GATHERING LINE	DATE: 2/10/10
APPLICANTS	ANCHOR POINT ENERGY, LLC 1421 BLAKE, DENVER, CO 80202	DRAWN BY: BGS
		SCALE: 1" = 60'
		PROJECT NO: 003104
		BOOK NO: 7-29
		SHEET 9 OF 18



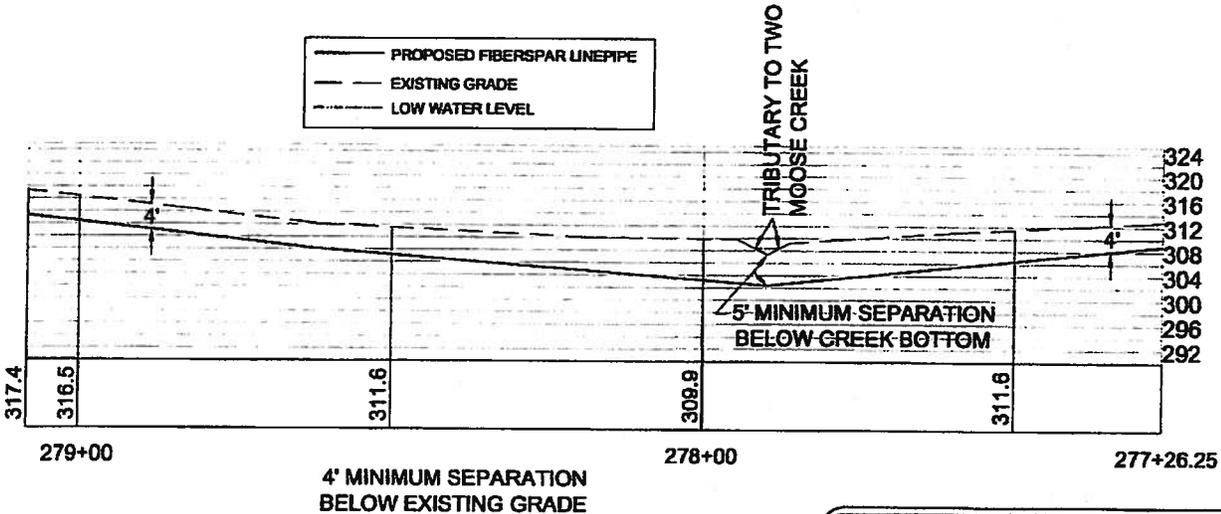
SCALE



SECTION 32



— PROPOSED FIBERSPAR LINEPIPE
 - - - EXISTING GRADE
 ····· LOW WATER LEVEL



NOTES

1. SEE DEWATERING PLAN SHEET 17



ENGINEERING - TESTING
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 P.O. BOX 468
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LOCATION
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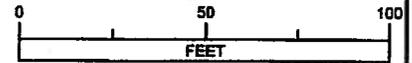
PURPOSE
 NORTH FORK GAS GATHERING LINE

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 ANCHOR POINT ENERGY, LLC
 1421 BLAKE, DENVER, CO 80202

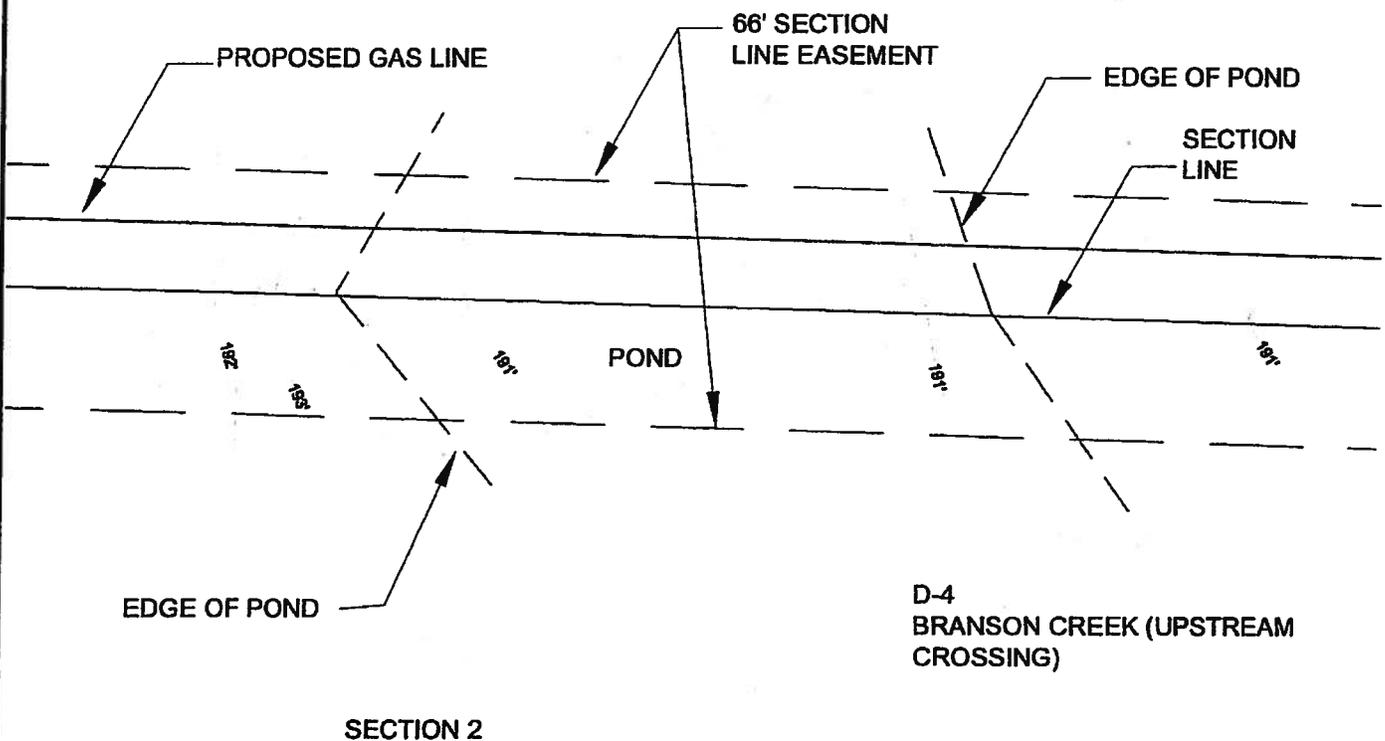
REVISION: -
 DATE: 2/10/10
 DRAWN BY: BGB
 SCALE: 1" = 30'
 PROJECT NO: 083104
 BOOK NO. 7-29
 SHEET
10 OF 18



SCALE



SECTION 36



NOTES

1. SEE DEWATERING PLAN SHEET 17



Consulting Inc

ENGINEERING - TESTING
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 P.O. BOX 468
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PURPOSE

NORTH FORK GAS GATHERING LINE

APPLICANTS

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 1421 BLAKE, DENVER, CO 80202

REVISION: -

DATE: 2/10/10

DRAWN BY: BGB

SCALE: 1" = 50'

PROJECT NO. 003104

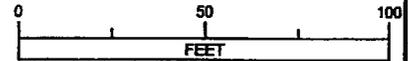
BOOK NO. 7-20

SHEET

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SCALE



SECTION 35

SECTION 36

D-5
BRANSON CREEK
(DOWNSTREAM CROSSING)

SECTION
LINE

TOP OF BANK

SECTION
LINE EASEMENT

PROPOSED
GAS LINE

SECTION
LINE

100' SECTION
LINE EASEMENT

SECTION 2

NOTES

1. SEE DEWATERING PLAN SHEET 17



Consulting Inc

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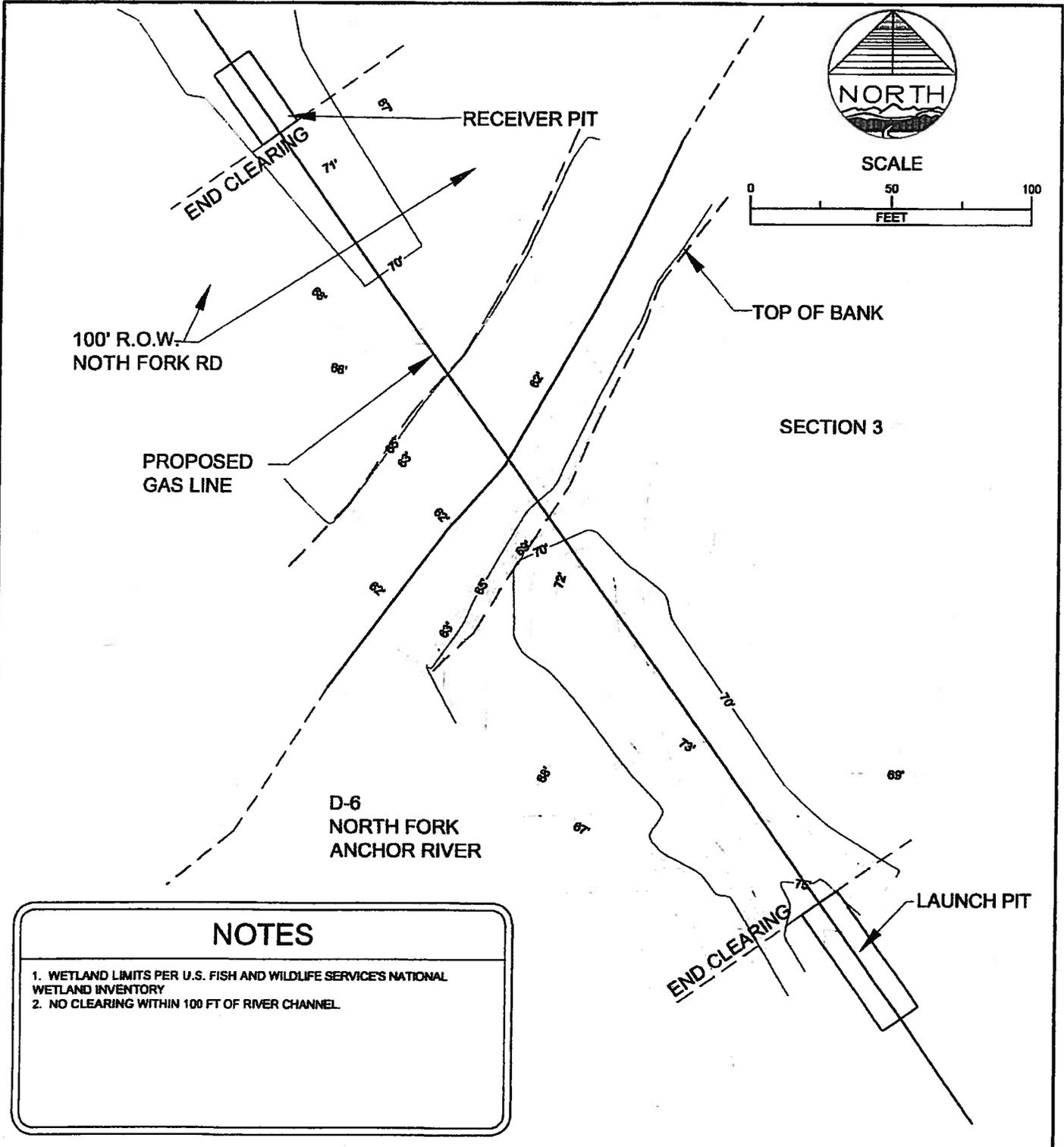
SCALE: 1" = 50'

PROJECT NO. 093104

BOOK NO. 7-29

SHEET

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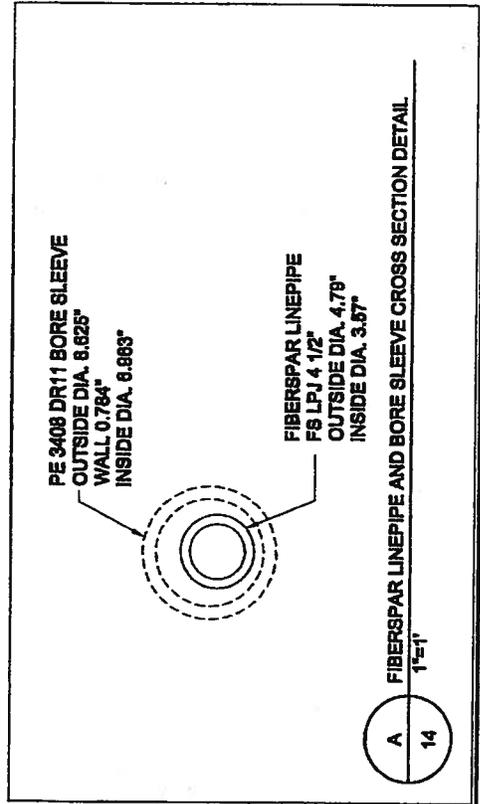
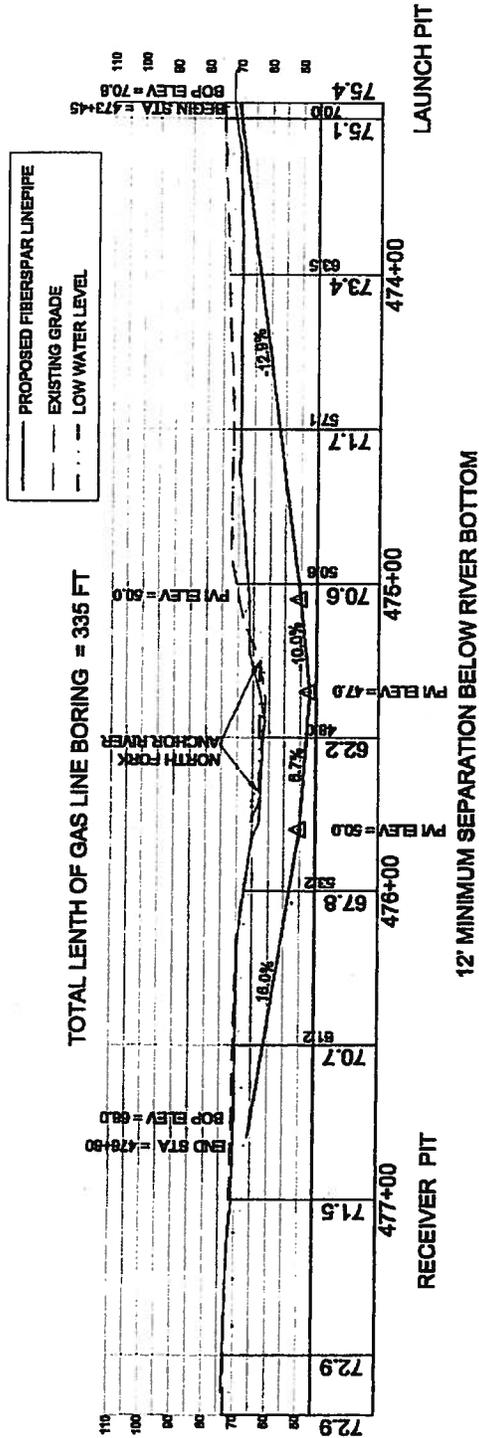
NOTES

1. WETLAND LIMITS PER U.S. FISH AND WILDLIFE SERVICE'S NATIONAL WETLAND INVENTORY
2. NO CLEARING WITHIN 100 FT OF RIVER CHANNEL.

 McLANE Consulting Inc	ENGINEERING - TESTING SURVEYING - MAPPING P.O. BOX 468 SOLDOTNA, AK. 99669 VOICE: (907) 283-4218 FAX: (907) 283-3265 WWW.MCLANECG.COM	LOCATION WEST END: SE 1/4 SEC 34, T4S, R15W, S.M. EAST END: SE 1/4 SEC 26, T4S, R14W, S.M.	REVISION: - DATE: 2/10/10 DRAWN BY: BGG SCALE: 1" = 50' PROJECT NO: 003104 BOOK NO: 7-20 SHEET
	PURPOSE NORTH FORK GAS GATHERING LINE		
	APPLICANTS ANCHOR POINT ENERGY, LLC <small>1421 BLAKE, DENVER, CO 80202</small>		



GAS PIPELINE & NORTH FORK ANCHOR RIVER BORING PROFILE



ENGINEERING - TESTING
SURVEYING - MAPPING
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REVISION

DATE: 2/10/10

DRAWN BY: BGS

SCALE: 1"=50'

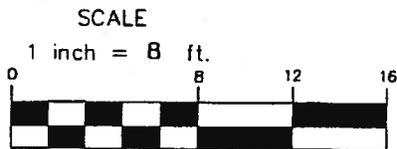
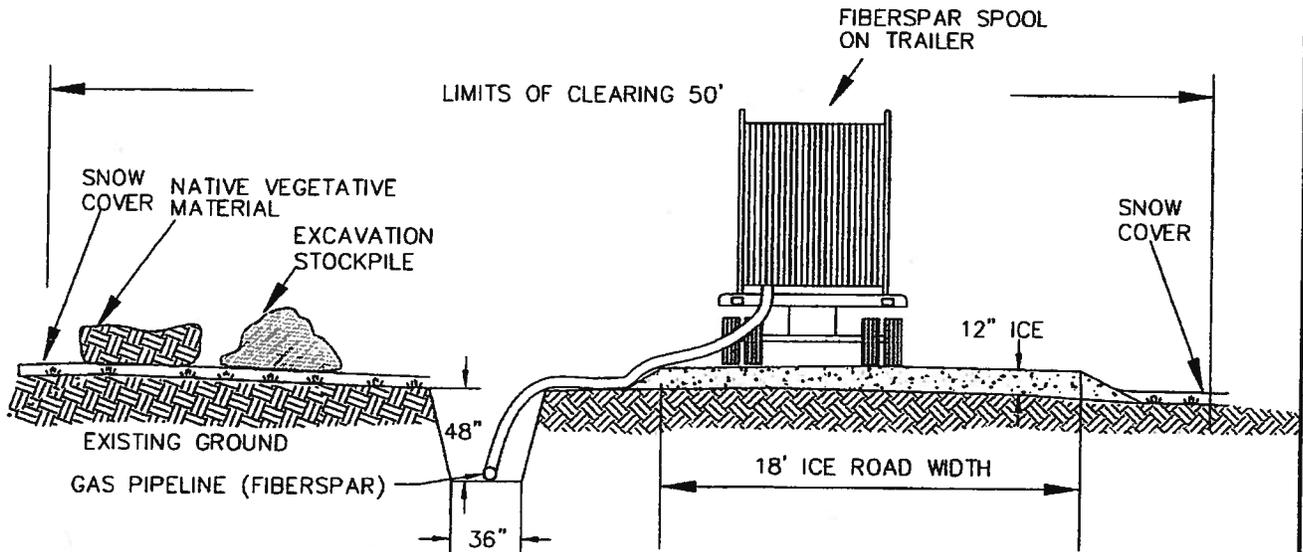
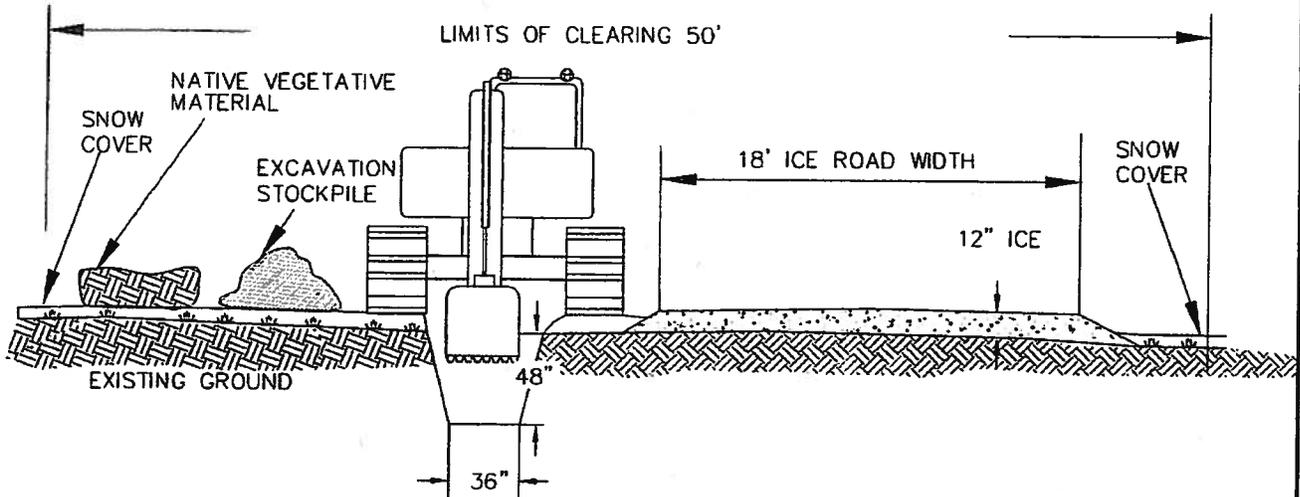
PROJECT NO: 003104

BOOK NO: 7-29

SHEET

14 OF 18

A PIPELINE CROSS SECTION VIEW "PRODUCTION"
15 1" = 8'



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LOCATION

WEST END: SE 1/4 SEC 34, T4S, R15W, S.M.
 EAST END: SE 1/4 SEC 26, T4S, R14W, S.M.

PURPOSE

NORTH FORK GAS GATHERING LINE

APPLICANTS

ANCHOR POINT ENERGY, LLC
 1421 BLAKE, DENVER, CO 80202

REVISION: -

DATE: 2/10/10

DRAWN BY: BGB

SCALE: 1"=8'

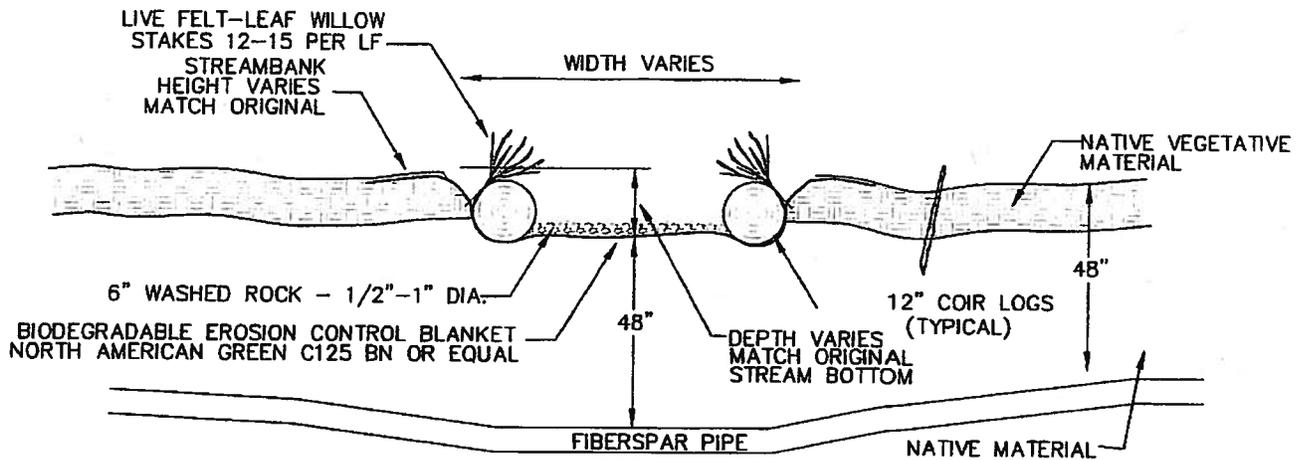
PROJECT NO. 093104

BOOK NO. N/A

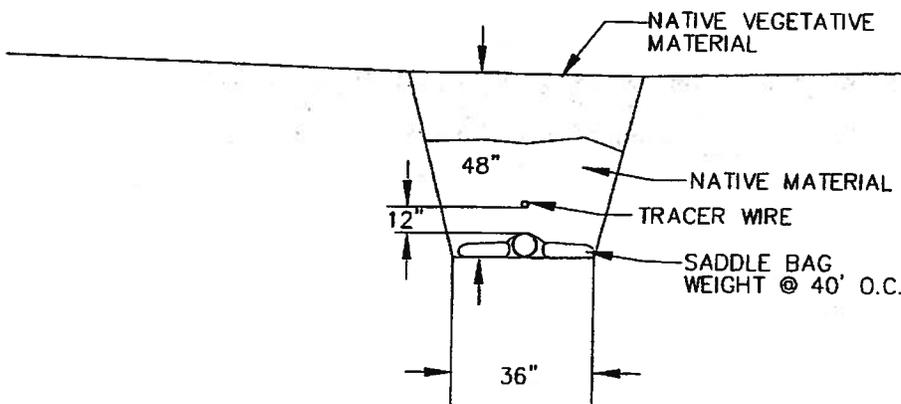
SHEET

15 OF 18

A TYPICAL OPEN CUT DRAINAGE CROSSING
16 NOT TO SCALE



B TRENCH BACKFILL DETAIL
16 1" = 4'



NOTE
 SET ASIDE VEGETATIVE
 MATERIAL BLOCKS.
 BACKFILL PLANT SIDE UP



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NORTH FORK GAS GATHERING LINE

APPLICANTS

ANCHOR POINT ENERGY, LLC

1421 BLAKE, DENVER, CO 80202

REVISION -

DATE: 2/10/10

DRAWN BY: BGB

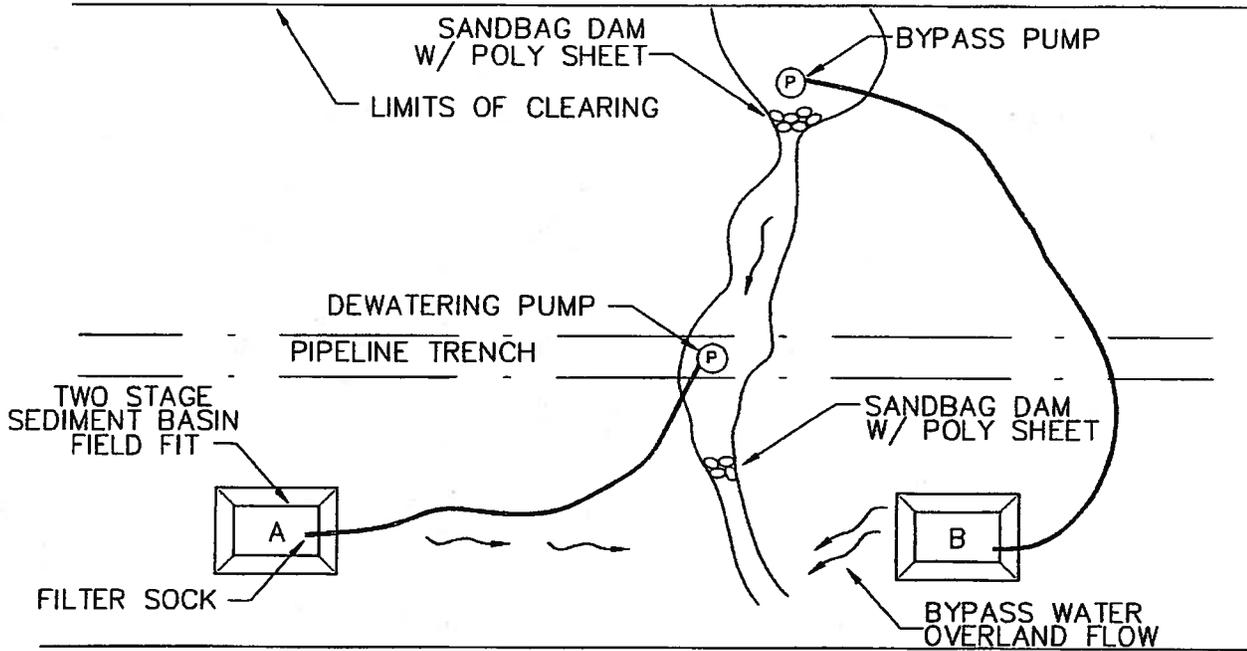
SCALE: AS SHOWN

PROJECT NO. 083104

BOOK NO. N/A

SHEET

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1. ALL STREAMS THAT ARE OPEN CUT TRENCHED SHALL BE DAMMED AND PUMPED ACCORDING TO ABOVE PLAN.
2. FIELD FIT SEDIMENTATION BASIN A. BASIN SHALL BE SET BACK FOR PHYTOREMEDIATION PRIOR TO RE-ENTRY.
3. LINE SEDIMENT BASINS WITH MULTIPLE LAYERS OF AMOCO 4545 TO FILTER WATER PRIOR TO ENTERING INTO VEGETATED AREA.
4. INSTALL SANDBAG AND POLY SHEET DAM UPSTREAM AND THEN DOWNSTREAM OF EXCAVATION AREA.
5. STREAM DIVERSION PUMP SHALL HAVE A 3/32 INCH WIRE MESH SCREEN WITH ACTIVE FLOW RATE AT INTERFACE OF LESS THAN 0.4 FPS.
6. STREAM DIVERSION PUMP SHALL DISCHARGE DIRECTLY INTO SEDIMENT BASIN B.
7. ONCE STREAM IS DIVERTED, INSTALL SUMP WITH PUMP TO DRY UP CHANNEL BEFORE PIPELINE EXCAVATION.
8. ALL WATER PUMPED OR BAILED FROM TRENCH WILL BE DISCHARGED TO SEDIMENT BASIN A.
9. MAINTAIN DIVERSION UNTIL PIPELINE IS INSTALLED AND STREAM BANK RESTORATION HAS STABILIZED THE STREAM BANKS.
10. SLOWLY REINTRODUCE FLOW TO THE CHANNEL BY INCREMENTALLY REMOVING SANDBAG DAMS.

A STREAM OR DRAINAGE DIVERSION TYPICAL
17 NOT TO SCALE



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LOCATION
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PURPOSE
 NORTH FORK GAS GATHERING LINE

APPLICANTS
 ANCHOR POINT ENERGY, LLC
 1421 BLAKE, DENVER, CO 80202

REVISION: -
 DATE: 2/10/10
 DRAWN BY: BGB
 SCALE: NA
 PROJECT NO: 093104
 BOOK NO: N/A

SHEET
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WETLANDS IMPACT SUMMARY: GAS PIPELINE

WETLAND DESCRIPTION	BEGINNING STATION ENDING STATION	LENGTH (LF)	FOOT PRINT AREA (4.5' WIDE TRENCH)	FOOT PRINT AREA (50' CLEARING)	SUB SURFACE FILL VOLUME (CY)
W-1	101+67 269+63	16796	75582 (SF) 1.7 (AC)	839800 (SF) 19.3 (AC)	210
W-2	276+96 370+52	9356	42100 (SF) 1.0 (AC)	467800 (SF) 10.7 (AC)	117
W-3	383+24 387+92	468	2106 (SF) 0.1 (AC)	23400 (SF) 0.5 (AC)	6
W-4	391+75 409+10	1735	7808 (SF) 0.2 (AC)	86750 (SF) 2.0 (AC)	22
W-5	423+63 432+36	872	3924 (SF) 0.1 (AC)	43600 (SF) 1.0 (AC)	11
W-6	435+90 437+45	155	698 (SF) 0.0 (AC)	7750 (SF) 0.2 (AC)	2
W-7	472+14 480+86	777	3497 (SF) 0.1 (AC)	38850 (SF) 0.9 (AC)	10
TOTALS		30159	135715 (SF) 3.0 (AC)	1507950 (SF) 34.6 (AC)	378 (CY)

NOTES

1. SUB SURFACE FILL VOLUME BASED ON SADDLE BAG WEIGHTS AT .5 CUBIC YARDS EVERY 40 FT.
2. NO SURFACE FILL WILL BE PLACED IN WATERS OR WETLANDS.



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PURPOSE

NORTH FORK GAS GATHERING LINE

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BOOK NO: N/A

SHEET

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Applicant Proposed Mitigation Statements
Anchor Point Energy, LLC Natural Gas Pipeline Project
Kenai Peninsula Borough, Alaska

Background:

The U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency issued regulations that govern national compensatory mitigation policy for activities in waters of the U.S., including wetlands, authorized by Corps permits. The final mitigation rule was published in the federal register on April 10, 2008, and became effective on June 9, 2008. The final rule establishes standards and criteria for the use of appropriate and practicable compensatory mitigation for unavoidable functional losses of aquatic resources authorized by Corps permits (33 CFR Part 332). Additionally, the rule requires new information to be included in Corps permit applications and public notices to enable meaningful comments on applicant proposed mitigation. In accordance with 33 CFR Part 325.1(d)(7), "For activities involving discharges of dredged or fill material into waters of the U.S., the application must include a statement describing how impacts to waters of the United States are to be avoided and minimized. The application must also include either a statement describing how impacts to waters of the United States are to be compensated for or a statement explaining why compensatory mitigation should not be required for the proposed impacts." For additional information, the final mitigation rule can be viewed at: http://www.usace.army.mil/cw/cecwo/reg/news/final_mitig_rule.pdf

Mitigation is a sequential process of avoidance, minimization, and compensation. Compensatory mitigation is not considered until after all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem. Please provide your proposed avoidance, minimization, and compensatory mitigation below:

Applicant's Proposed Mitigation (attach additional sheets as necessary):

1. Avoidance of impacts to waters of the U.S., including wetlands:

Please describe how, in your project planning process, you avoided impacts to waters of the U.S., including wetlands, to the maximum extent practicable. Examples of avoidance measures include site selection, routes, design configurations, etc...

Anchor Point Energy, LLC (APE) requires a high pressure natural gas transmission line to transport natural gas from the North Fork Unit to a sales pipeline to be installed by Enstar Natural Gas Company (Enstar). A corridor several miles wide and about 10 miles long was evaluated to select a route. Route selection criteria for the route included:

- Public safety
- Waters including wetlands
- Right-of-way availability
- Terrain features
- Length

Based on the preliminary route assessment, there were two main routes considered. The proposed route followed a generally direct route through a large block of undeveloped lands between the North Fork Unit pad as the start of the pipeline to the Enstar tie-in at Anchor Point. The other alternative followed the North Fork Road from the North Fork Unit pad to Anchor Point.

The following paragraphs describe the criteria and compare the two routes based on the criteria.

Public Safety: Public safety is important during both construction and long term operation. The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA), acting through the Office of Pipeline Safety, administer the Department's national regulatory program to assure safe transportation of natural gas by pipeline. The regulations are contained in 49 CFR Part 192. Pipeline locations are classified by the number of dwellings or buildings or areas of public assembly within 220 yards on either side of centerline. A Class 1 has the fewest buildings intended for human occupancy; Class 4 has the highest. A higher class location poses higher risk to the public as there is a higher potential for incidents to occur, and there is a higher potential for disruption of local activities with an increased presence of local residents.

The proposed route has 1.7 miles of Class 2 line and the remaining 5.7 miles passes through largely unpopulated wetlands. The North Fork Road route passes through largely populated Class 2 areas. From a safety aspect, the proposed route is clearly the preferred route from a public safety standpoint.

Waters Including Wetlands: Avoidance of impacts to waters of the United States, including wetlands, is another important evaluation factor. In order to provide a more applicable comparison, it is useful to review the wetland categories as outlined in the USACE RGL 09-01:

- Category I – High functioning wetlands – Uncommon wetlands that: 1) provide a life support function for threatened or endangered species that has been documented; 2) represent a high quality example of a rare wetland type; 3) are rare within a given region; or, 4) are undisturbed and contain ecological attributes that are impossible or difficult to replace within a generation, if at all. Examples include certain bogs and fens.
- Category II – High to moderate functioning wetlands – Wetlands that: 1) provide habitat for very sensitive or important wildlife or plants; 2) are either difficult to replace (such as bogs); or 3) provide very high functions, particularly for wildlife habitat. These wetlands may occur more commonly than Category I wetlands, but still need a high level of protection.
- Category III – Moderate to low functioning wetlands —wetlands that are important for a variety of wildlife species and can provide watershed protection functions depending on where they are located. Generally these wetlands will be smaller and/or less diverse in the landscape than Category II wetlands. These wetlands may have experienced some form of degradation, but to a lesser degree than Category IV wetlands.
- Category IV – Degraded and low functioning wetlands —the smallest, most isolated and least diverse wetlands that have likely been degraded by human activities. These are wetlands that may be readily restored and/or enhanced. Category IV wetlands can provide important functions and values, and should to some degree be protected depending on their position in the watershed and watershed condition.

The area evaluated for the pipeline corridor consists of over 50 percent wetlands of various types (see Figure 1). As such it is impossible to completely avoid wetlands areas. Predominant wetlands types in the general area include the riparian wetlands (typically Category II and in some cases possibly Category I) and relict lakebed soils (typically at the lower end of Category III). The riparian wetlands primarily occur along the North Fork, Anchor Rivers, and along some of their major tributaries. The relict lakebed wetlands occupy most of the area between the North Fork and Anchor Rivers.

There is only one route that will significantly minimize direct use of wetlands and that route would be to follow the North Fork Road route. There is an approximate 300 to 500 foot wide corridor of uplands

along the top of bluff on the south side of the North Fork River in which the road generally runs. There are about 1.2 miles of mixed Category I, II, and III wetlands that would still need to be crossed with this route. The primary disadvantage of the road route is that with the limited upland area, the corridor is already heavily used by the road itself, utilities, local residents, and businesses. An additional concern would be the proximity of the construction activities to the more sensitive riparian wetlands of the North Fork River which is an important anadromous fish stream in the area.

The proposed route would cross approximately 5.7 miles of mostly low functioning wetlands. The wetlands are very flat with large open areas, poorly drained, and do not have a large number of ponds that would help to provide habitat for waterflow. There are several small riparian wetland areas that will be crossed by the pipeline, but the pipeline was re-routed to avoid crossing a listed anadromous fish stream (Two Moose Creek); this reroute also eliminated about 0.4 miles of pipeline that was nearly entirely in wetlands. Both routes would cross the North Fork River using horizontal directional drilling as discussed in following sections.

From a wetlands perspective only, it is unclear whether crossing a larger lower value wetlands area is better or worse than potentially impacting a higher value wetlands.

Right-of-Way Availability (ROW): Each route has public rights-of-way that may be utilized for pipeline installation. The North Fork Road ROW is only 100 wide and is already utilized for the road and associated drainage ditches and other public utilities for public use along the route (electric distribution and telephone). An onsite survey of the route shows many conflicts including:

- Over 100 private driveways. These create access problems and potential safety issues.
- Existing utilities consisting of over-head electrical distribution and buried telephone cables.
- Numerous cross drainages run under the roadway toward the North Fork. Plan and field review shows 29 cross culverts from MP 3 to MP 8.5, where drainage runs under the road. Some of these drainages have intermittent flows for at least a few months out of the year.

The cross country route is generally 100 foot wide and mostly not utilized at this time except near Anchor Point where the two routes generally overlap.

Overall, the proposed route is the preferred route based on ROW availability.

Terrain Features: Terrain concerns were apparent along the North Fork Road route, particularly the north side, where moderate to steep terrain begins near the road shoulder and slopes to the river. The south side has lower erosion and sedimentation potential but still has the numerous cross drainages leading directly to the riparian habitat.

The proposed route is generally level, poorly drained, and has few cross slopes; soils in the area have a low potential for erosion. The proposed route is the preferred route from the standpoint of terrain features.

Length: Length is directly related to cost, however in this case with small diameter, spooled pipe, it is not a primary factor. The pipe cost difference between the proposed and road route is less than \$150,000. There will be added costs for disruption of local access and repair to driveways, drainage structures, and utilities for the North Fork Road route.

Advantages and disadvantages to these two routes are summarized as follows.

Table 1. Comparison of the Proposed Direct Route and the North Fork Road Route.

Parameter	Proposed Direct Route	North Fork Road Route
Public Safety	DOT Class 1: 5.7 miles DOT Class 2: 1.7 miles	DOT Class 2: 8.5 miles
Wetlands	5.7 miles of mostly low functioning wetlands	1.2 miles of mixed wetlands, but has the potential to impact high to moderate functioning wetlands along most of the route
Right of Way Availability	Low development densities in all but near Anchor Point in areas overlapping the North Fork Road Route	Numerous conflicts with existing use of ROW associated with much higher development densities.
Terrain Features	Flat poorly drained areas with low potential for erosion.	Moderate to high slopes in areas with low to moderate potential for erosion.
Pipeline Length	7.4 miles	8.5 miles

2. Minimization of unavoidable impacts to waters of the U.S., including wetlands:

Please describe how your project design incorporates measures that minimize the unavoidable impacts to waters of the U.S., including wetlands, by limiting fill discharges to the minimum amount/size necessary to achieve the project purpose.

The project plan minimizes impacts by not including any fill discharge to wetlands. All pipe installation in waters and wetlands will most likely be done in the winter. Clearing will be done with low ground pressure (LGP), tracked equipment. Clearing debris will be mulched with Fecon cutting heads and spread over the cleared area. Mulched clearing debris along with packed snow will provide the necessary construction access.

Snow will be packed routinely, insuring frost penetration through the vegetative mat. An ice road will be constructed if necessary to minimize wetlands damage from vehicular travel.

Excavation for pipe installation will begin with cutting through the frozen mat on both sides, removal of the surface vegetation mat in sections, segregation of these blocks while side casting trench excavation. The vegetative mat from the surface will be returned to the trench in original orientation to complete the backfill.

Pipeline weights will be required to maintain a negative buoyancy for the pipeline. Weights will consist of permeable sand bags that will not block groundwater flow in the area.

A crossing of the North Fork River will be accomplished using horizontal directional drilling to avoid damage to this sensitive fish stream and adjacent shoreline. Crossings of other streams will occur during winter when the streams should be frozen to the stream bottom.

Traffic control will be employed to limit equipment and vehicular traffic to the minimum required to install and backfill the pipe. Multiple access points will be employed so traffic does not have to travel the entire route to reach a work area.

Utilization of spooled pipe will reduce construction time and effort, lessening wetland impacts. Fiberspar Linepipe FS LP J 4½" 2250 spool capacity is 3,000 LF. 1,500 LF per day may be installed. This reduces the period trenches are open and vegetation is disturbed.

During the summer following construction, the entire site will be inspected for wetlands damage, with special attention paid to banks of the smaller streams. Additional activities will be accomplished to make sure that the wetlands are restored to the original condition.

3. Compensation for unavoidable impacts to waters of the U.S., including wetlands:

Please describe your proposed compensatory mitigation to offset unavoidable impacts to waters of the U.S., or, alternatively, why compensatory mitigation is not appropriate or practicable for your project. Compensatory mitigation involves actions taken to offset unavoidable adverse impacts to waters of the U.S., including wetlands, streams and other aquatic resources (aquatic sites) authorized by Corps permits. Compensatory mitigation may involve the restoration, enhancement, establishment (creation), and/or the preservation of aquatic sites. The three mechanisms for providing compensatory mitigation are mitigation banks, in-lieu fee of mitigation, and permittee-responsible mitigation. Please see the attached definitions for additional information.

Winter wetland work done with replaced vegetation mat, done on packed snow access roads does not result in environmental losses of waters of the U.S. including wetlands. Some short-term damage may occur with the open trench stream crossing, but the potentially impacted area should be less than 1/10 acre and restoration activities in the following summer should correct any impacts that are observed. It is requested that compensatory mitigation should not be required.

