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February 14, 2007

Mr. Patrick Fahn
Chief Engineer, Public Utilities Division
North Dakota Public Service Commission
600 East Blvd.
Bismarck, ND 58505-0480



RE: Enbridge Pipelines (North Dakota) LLC
Case No. PU-06-330
Trenton to Beaver Lodge Pipeline

Dear Mr. Fahn;

The purpose of this letter is threefold:

- 1) to document compliance with condition 3 of the Findings of Fact, Conclusions of Law and Order ("Order") in the above-referenced case by providing a report documenting that the pipeline will not be affected by the abandoned mine in Section 4 of Pherrin Township and requesting approval of the proposed pipeline route near the mine as identified at the hearing, in fact number 30 of the Order, and in the attached report (see attachment 1);
- 2) to document compliance with condition 17 of the Order by providing a copy of the letter from the North Dakota State Historic Preservation Officer concurring with Enbridge's evaluation of sites 32WI76 and 32WI960, which are along the proposed route near the abandoned mine (see attachment 2); and
- 3) to request clarification of, and a variance to, condition 22 of the Order, which addresses the replanting of trees and shrubs following construction (see attachment 3).

If you have questions or require further information, please contact John Muehlhausen of Merjent, Inc., Enbridge's environmental consultant, at (612) 746-3661, or me at (715) 394-1572. Thank you for your continued assistance on this project.

Sincerely,
Enbridge Pipelines (North Dakota) LLC

A handwritten signature in black ink that reads 'Kris Benson'.

Kris Benson
Environmental Analyst II, CHMM

cc: Brent Horton, Enbridge Pipelines (North Dakota) LLC
John Muehlhausen, Merjent, Inc.
Brian Bjella, Fleck, Mather & Strutz, Ltd.
Ty France, Rooney Engineering, Inc.

Attachments

59 PU-06-330

Pages: 16

Document compliance w/conditions 3 & 17;
req clarif/variance of condition 22
by Enbridge Pipelines (North Dakota) LLC by
02/15/2007 C: Comm Legal, Illona Pat, Jerry, Annette . .

ATTACHMENT 1

**ENBRIDGE PIPELINES (NORTH DAKOTA) LLC
TRENTON TO BEAVER LODGE LINE LOOP**

Geophysical Investigation of Suspected Mine in Section 4 of Pherrin Township

October 12, 2006

Enbridge Pipelines (North Dakota) LLC (“Enbridge”) has completed a Geophysical Investigation of the area along the proposed pipeline route defined in the September 12th, 2006 document “*Investigation of Suspected Mine in Section 4 of Pherrin Township*” and the maps attached to this report. Based on the definition of the investigation area there were 91 total locations to be drilled along the proposed pipeline route. The drills were completed on October 3rd - 10th, 2006. No voids were found during the investigation, leading to the conclusion that the mined area did not extend into the vicinity of the proposed pipeline route.

As stated in the “*Investigation of Suspected Mine in Section 4 of Pherrin Township*” submitted to the PSC:

“Enbridge is proposing to drill holes from the surface of the ground to the coal seam every 30 feet along that portion of the proposed pipeline route that falls within 2,750 feet of the mine entrance (see attached maps 1 and 2). A 30-foot spacing was selected because a buried 10 inch diameter grade X-52 pipeline can maintain integrity over a 30 foot unsupported span. Subsurface voids would need to create sinkholes greater than 30 feet to pose a risk to the pipeline. A distance of 2,750 feet from the mine entrance was selected because it will allow testing just beyond the suspected sinkholes at the east end of the test area, and will allow testing on the west end to extend to the elevation of the mine entrance and mining activities. The initial drill holes should verify the depth of coal seam and related mining activities.”

The drilling activities have been concluded and the following report details the findings of the investigation.

Initial Results

To begin, a handful of drills were completed in order to determine the depth and thickness of any coal seams that may exist in the area. These holes were drilled 50 – 150 feet from the surface elevation, taking them far below the estimated elevation of the mined coal seam. As can be seen in the *Graphical Drilling Log* two coal seams were found during these initial drills, the approximate elevations of the seams were 1986 feet and 2030 feet above sea level. Their respective thicknesses were 1 – 7 feet (minor seam) and 1 – 12 feet (major seam). With the thickest coal seam being found at the estimated depth of the mine it seemed reasonable to assume that if a void were found it would be at that approximate elevation.

General Conclusions

The first 21 test hole locations were drilled to the depth of the minor coal seam due to the fact that the anticipated coal seam (major seam) was not found in that area. Drill #21 was the beginning of the major coal seam; from this point forward the test holes were drilled to a depth slightly below the major coal seam, as can be seen on the *Graphical Drilling Log*. With the major coal seam found at the same elevation as the coal mine entrance it was concluded that drilling to a depth far below the mine entrance elevation was unnecessary. No coal was present between drill sites 42 and 91. All information can be found in the *Drilling Log* spreadsheet as well as the *Graphical Drilling Log*.

Special Cases

Four holes were drilled well beyond the estimated drill depths to determine whether or not other coal seams existed in that area. None of these extended drills unveiled any additional coal seams that could have potentially been mined.

As shown in the *Drilling Log* there was a total of six drill locations that were never investigated due to the physical limitations of the drilling rig. The missed drills were numbers 55, 56, 58, 59, 62, 63. The elevation profile shown in the *Graphical Drilling Log* shows the steep inclines that were the cause for missing the above mentioned drills. Although there is no tangible evidence that a void does not exist in these locations it is reasonable, based on the finding around these sites, that no void exists and that, in fact, no coal exists at these sites.

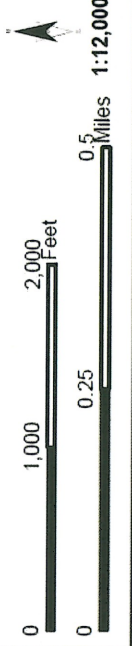
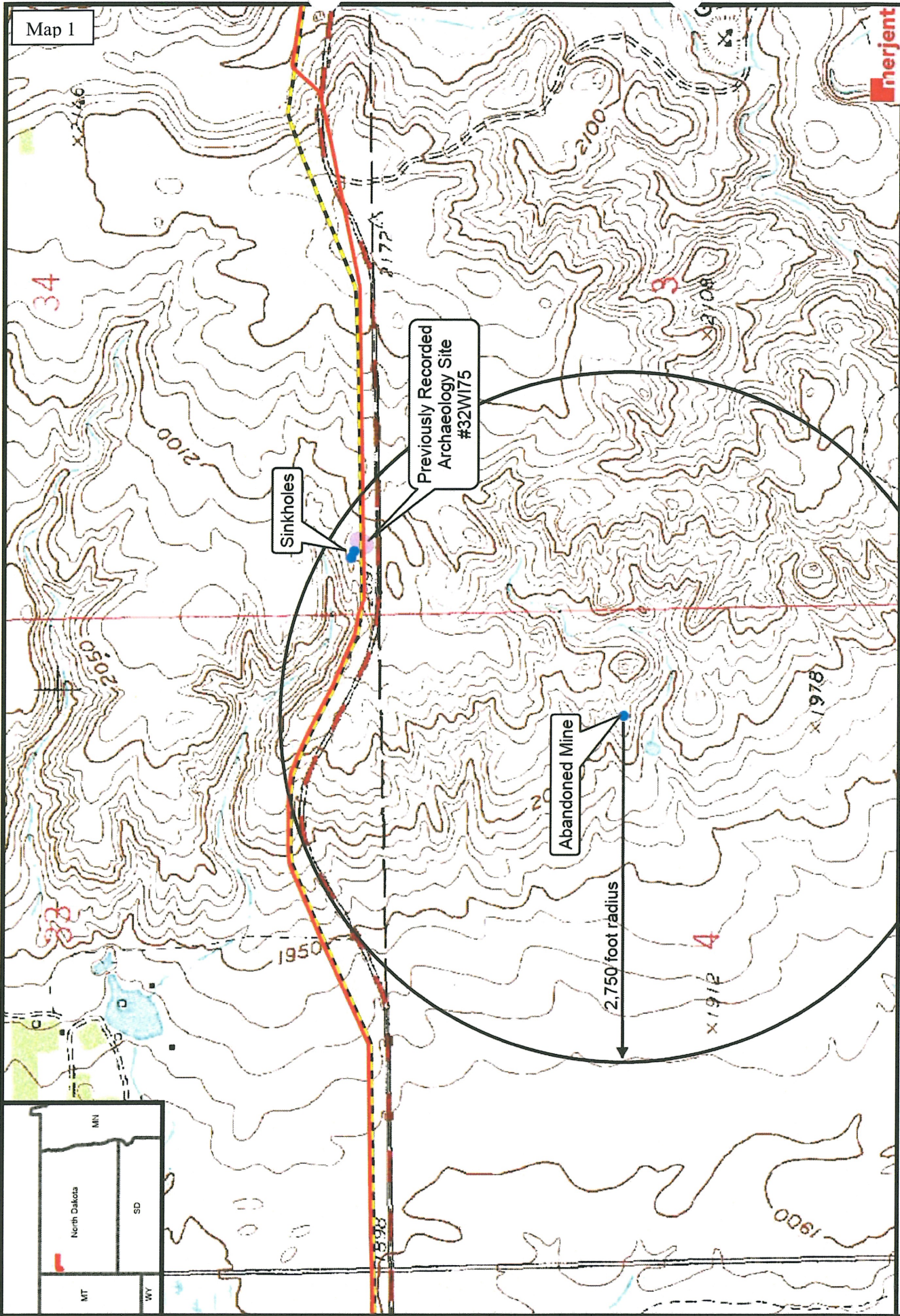
Final Conclusion

At the completion of this Geophysical Investigation it was concluded that there are not any potentially hazardous voids along the proposed pipeline route in the area investigated. Considering no coal was found near the two existing subsidence features it seems plausible that they were related to potential structures associated with archaeological site 32W175. Nothing was found to suggest that there may be hazardous voids anywhere near the proposed pipeline right-of-way.

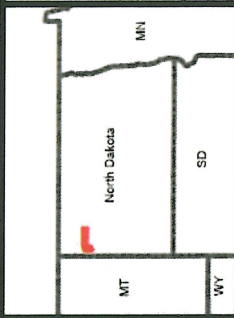
Map 1



Enbridge Pipelines (North Dakota) LLC North Dakota Pipeline Expansion Project

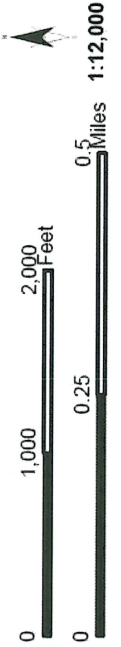
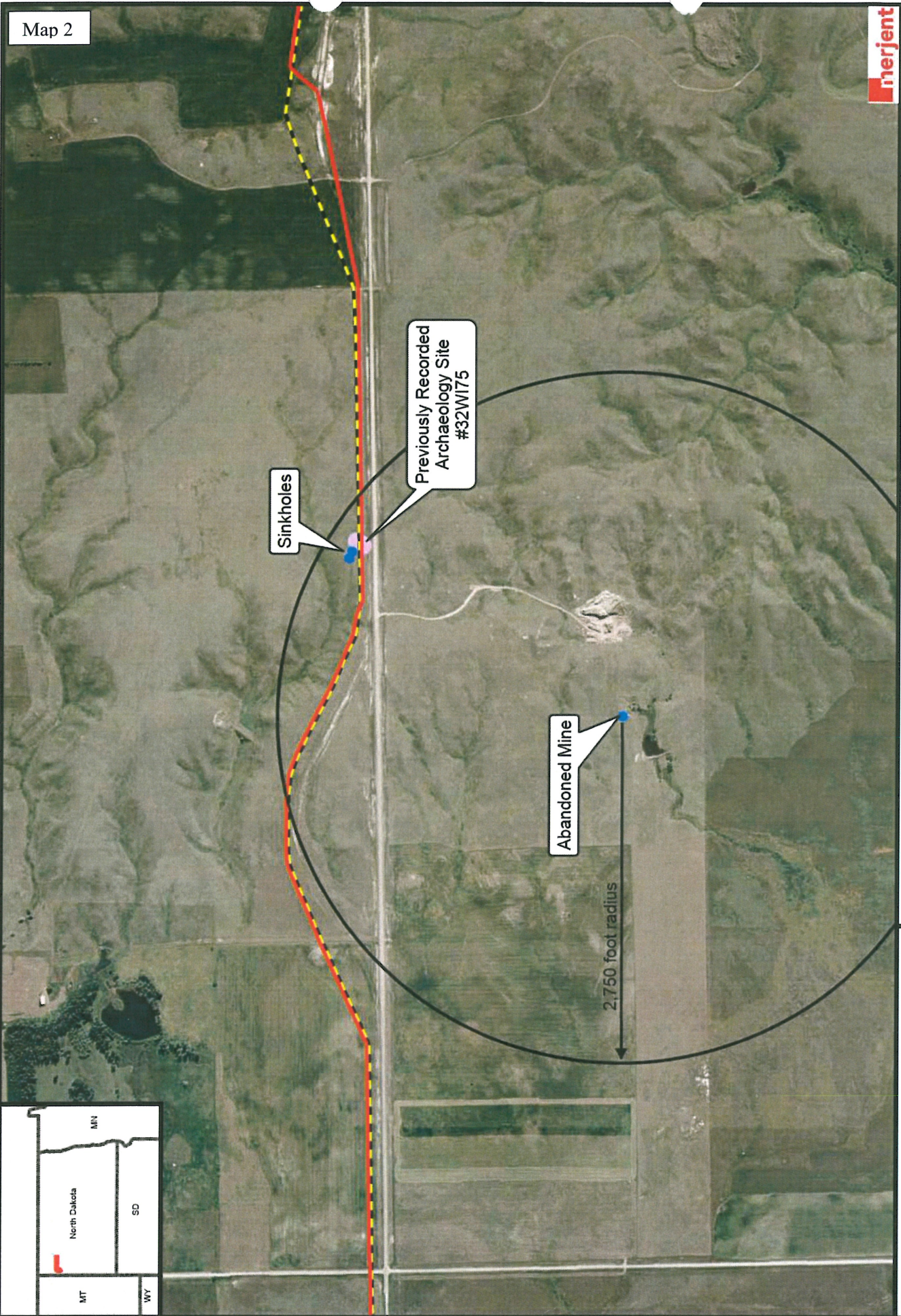


- Existing Pipeline
- Proposed Pipeline
- Archaeology Site
- Estimated Milepost
- Geologic Features

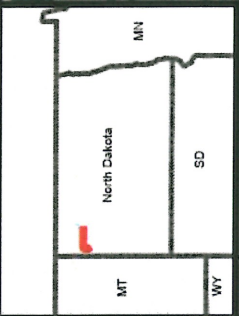




Enbridge Pipelines (North Dakota) LLC North Dakota Pipeline Expansion Project



- Existing Pipeline
 - Proposed Pipeline
 - Archaeology Site
 - Estimated Milepost
 - Geologic Features
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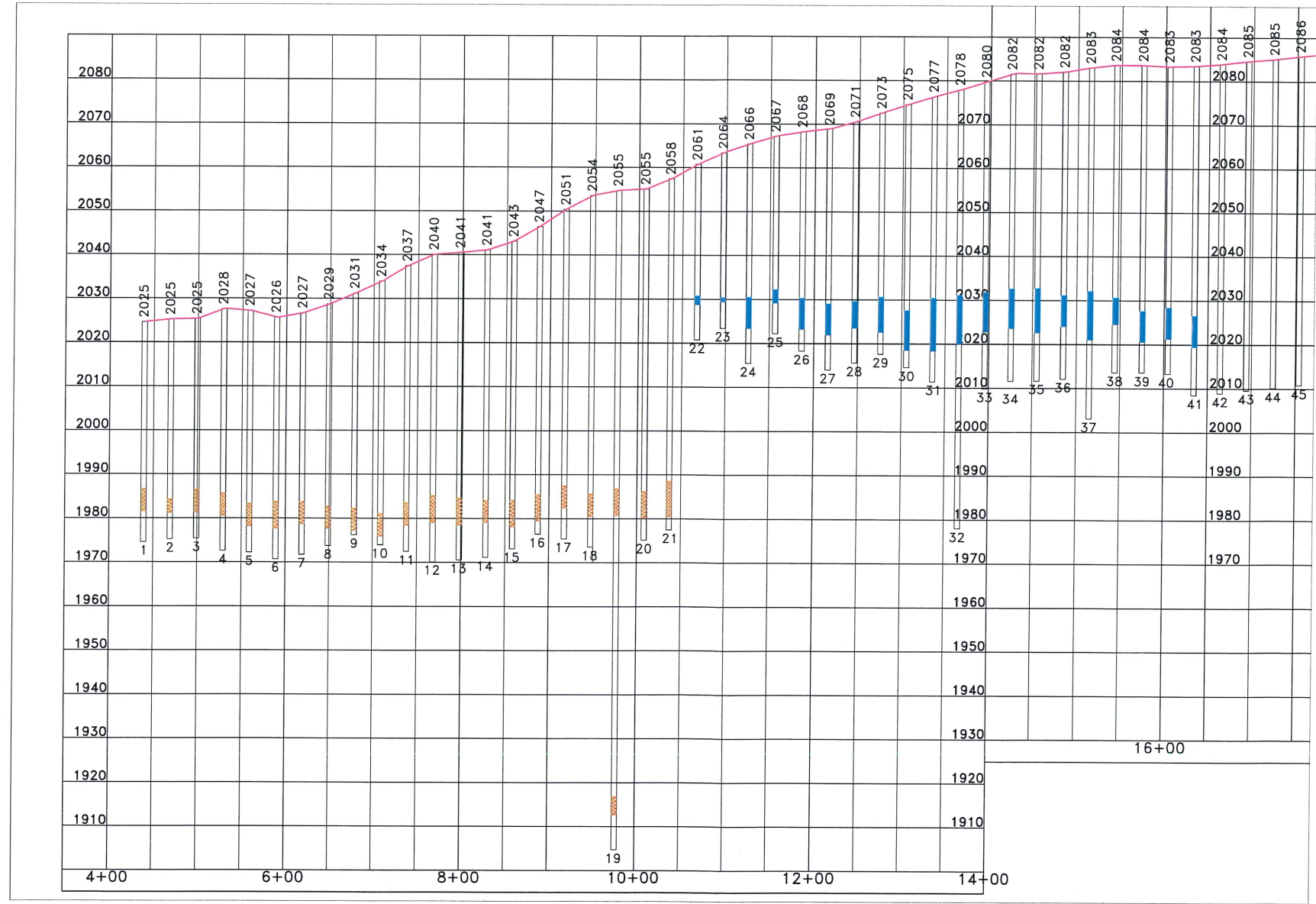
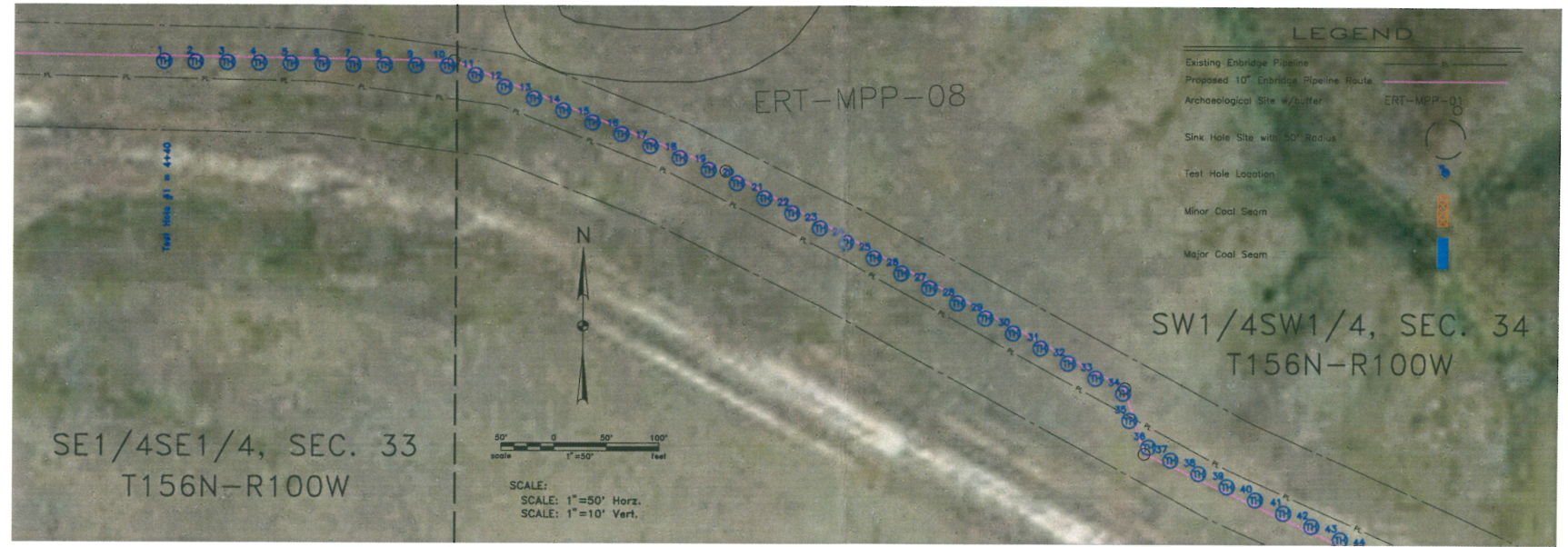
Sinkholes

Previously Recorded
Archaeology Site
#32WI75

Abandoned Mine

2,750 foot radius

**Enbridge Pipelines (North Dakota) LLC
Proposed 10" Pipeline, Trenton to Beaver Lodge
Williams County, North Dakota
Test Hole Locations**



ATTACHMENT 2



STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA

John Hoeven
Governor of North Dakota

January 9, 2007

North Dakota
State Historical Board

Marvin L. Kaiser
Williston - President

Albert I. Berger
Grand Forks - Vice President

Chester E. Nelson, Jr.
Bismarck - Secretary

Gerold Gemtholz
Valley City

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Diane K. Larson
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John E. Von Rueden
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Director
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Department

Francis Ziegler
Director
Department of
Transportation

Merlan E. Paaverud, Jr.
Director

Accredited by the
American Association
of Museums

Kris H. Benson
Environmental Analyst II
Enbridge Pipelines LLC
119 N 25th Street East
Superior, WI 54880

NDSHPO REF. : 06-0776d PSC/COE Enbridge/Merjent Pipeline
Evaluation Report of Sites 32WI76 and 32WI960

Dear Kris:

We have reviewed project : "Enbridge Pipelines (North Dakota) LLC, North Dakota Pipeline Expansion Project: Evaluative Testing of Sites 32WI76 and 32WI960, Williams County, North Dakota," by Jennifer L. Hardy and John G. Morrison (Earthworks, ROI 473, December 2006) and find it acceptable.

We concur that 32WI76 and 32WI960 are not significant and not eligible for listing in the National Register of Historic Places. Also, we concur with a "No Historic Properties Affected" determination provided this segment of the project is restricted to the locations plotted and described in the report and other project documentation.

Thank you for the opportunity to review the project. If you have questions please contact Paul Picha at (701) 328-3574.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and

Director, State Historical Society of North Dakota
c: Patrick Fahn, ND PSC
c: Daniel E. Cimarosti, COE-Regulatory
✓ c: John G. Morrison, Earthworks

ATTACHMENT 3

**ENBRIDGE PIPELINES (NORTH DAKOTA) LLC
TRENTON TO BEAVER LODGE LINE LOOP**

Request for Clarification of and Variances to Condition 22

January 23, 2007

On September 20, 2006, the Public Service Commission (“PSC” or “Commission”) issued Corridor Certificate No. 94 and Route Permit No. 104 to Enbridge Pipelines (North Dakota) LLC (“Enbridge”) for construction of a crude oil pipeline and associated facilities in Williams County, North Dakota. In conjunction, the Commission issued its Findings of Fact, Conclusions of Law and Order (“Order”). In the Order, the PSC stated in condition 22:

Trees or other woody vegetation must be replaced with saplings that are two or more years old at a rate of two for every one removed. Landowners shall be given the option of having replacement trees/shrubs planted off the right-of-way on the landowner’s property or waiving that requirement in writing and allowing Enbridge to plant the replacement trees/shrubs elsewhere. All effected trees and shrubs must be quantified before construction activity. Enbridge shall record, and file with the Commission, the number and variety or replacement tree and shrub plantings, the specific planting area(s) and the dates of the planting. Enbridge shall inspect tree replacements once a year for three years, on the anniversary of the plantings, and send a report on or shortly before October 1 of each year to the Commission documenting work completing and condition of woodlands planting. The Commission may order additional plantings if survival rates are less than 75%.

Enbridge is committed to protecting the environment and meeting all regulatory requirements on this project. Toward this end, Enbridge is seeking to clarify the tree and shrub replanting requirements by better defining how trees and shrubs will be identified and inventoried in the field. Following is a list of procedures proposed by Enbridge for identifying and inventorying trees and shrubs. Enbridge consulted with the North Dakota Game and Fish Department regarding these procedures and obtain concurrence from the Department that the procedures are acceptable (see attached memos and letter).

1. Enbridge will reduce the width of the construction work area in areas of woody vegetation to 50 feet or less.¹
2. During construction, Enbridge will selectively cut and remove trees and shrubs within the construction work area, leaving mature trees and shrubs intact where practical. A minimal amount of tree and shrub removal is anticipated on this project.
3. In areas where trees are cleared, Enbridge will record the location, number, and species of trees cut that are 3 inches in diameter at breast height (“dbh”)² or greater, and will replace cut trees on a 2 to 1 basis with 2-year-old saplings of the same or a similar species after construction. Trees that are less than 3-inches dbh will not be replaced.³
4. In areas where shrubs are cleared, Enbridge will cut shrubs flush with the surface of the ground, taking care to leave the naturally occurring seed bank and root stock intact. If soil disturbance is necessary, the native topsoil will be preserved and replaced after construction. Shrubs will be allowed to regenerate naturally where topsoil is preserved. Where topsoil is not preserved, Enbridge will record the location, number, and species of shrubs cleared and will replace cleared shrubs on a 2 to 1 basis with stem cuttings of the same or a similar species.
5. Trees and shrubs that are considered invasive species or noxious weeds will not be inventoried or replaced (*e.g.*, *Caragana arborescens*, *Elaeagnus angustifolia*, *Rhamnus cathartica*, *Tamarix chinensis*, *T. parviflora*, *T. ramosissima*, *Ulmus pumila*).
6. Cut trees and shrubs will be inventoried before cutting, but only trees and shrubs actually cut will be replaced.⁴

¹ The construction right-of-way may be greater than 50 feet in areas where the entire right-of-way width is not wooded, and Enbridge shall limit the width of clear cuts through woody areas to 50 feet or less. This requirement is part of condition number 14 of the Order, but is included here because of its related nature.

² Breast height is defined as 4.5 feet above the ground on the uphill side of the tree in accordance with generally accepted forest mensuration practices.

³ Arborists and forest ecologists generally consider tree removal to mean the cutting of a tree with a minimum dbh somewhere between 3 and 12 inches. The dbh of trees may be measured for a variety of reasons, including tree conservation, forest planning, habitat monitoring, timber appraisal, and zoning. Each objective requires different information and level of detail, and there is no standard dbh for defining a tree. Enbridge selected a minimum dbh of 3 inches as a conservative approach to this issue. This approach meets or exceeds the general approach followed by state agencies involved with tree clearing, such as the North Dakota Department of Transportation.

⁴ Safety considerations dictate that Enbridge maintain a strip of land over its pipelines free of woody vegetation; therefore, tree and shrub replanting will not be conducted over the pipelines.

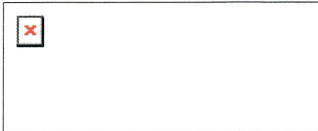
7. At the conclusion of the project, Enbridge will file with the PSC documentation identifying the number and variety of trees removed, as well as the number, type, location and date of the replacement plantings.
8. Landowners shall be given the option of having replacement trees/shrubs planted off the right-of-way on the landowner's property or waiving that requirement in writing and allowing Enbridge to plant the replacement trees/shrubs at alternative locations.
9. Enbridge shall inspect tree replacements once a year for three years, on the anniversary of the plantings, and send a report on or shortly before October 1 of each year to the PSC documenting work completing and condition of woodlands planting.
10. Enbridge understands that the Commission may order additional plantings if survival rates are less than 75%. However, the North Dakota Game and Fish Department recommended a 2 to 1 replanting basis in order to achieve no net loss of woody habitat while allowing for up to 50 percent sapling mortality. Enbridge respectfully requests a variance from this order pursuant to North Dakota Century Code § 49-22-08.1 and North Dakota Administrative Code § 69-06-05-02(3) such that Commission may order additional plantings additional plantings if survival rates are less than 50%. A 50% survival rate would result in no net loss of woody habitat and would be consistent with the intent of the North Dakota Game and Fish Department recommendation.

From: Angela Roe [aroe@merjent.com]
Sent: Tuesday, October 31, 2006 10:24 AM
To: 'John Muehlhausen'
Subject: Enbridge - ND Expansion Project - Tree Replacement Requirement
John,

I spoke with Mike McKenna of the North Dakota Game and Fish Department regarding the tree replacement requirement. He said they assume that any tree replacement will have a 50% mortality rate, hence the 2:1 requirement. Their goal is to prevent net loss of habitat. I asked him to clarify the definition of a tree/woody species and noted that Enbridge needs direction when they do their inventory prior to construction to document what was there so they can adequately replace it - I noted that industry standard for tree survey and replacement is any species having a trunk of 3" DBH (diameter at breast height) or greater. I asked if the 3" DBH standard is acceptable to his department and he said yes. I asked him about the "other woody vegetation" and noted it would be difficult to quantify and replace shrub/brush and he acknowledged that those species will typically re-populate post-construction if the topsoil remains intact and concluded that is not a concern. I also asked him about areas such as windrows/shelterbelts and if those areas are of concern to them with regard to wildlife habitat. He indicated those areas do indeed provide habitat and the replacement requirement does apply to them.

Hope this provides adequate clarification.

-Angie



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Minneapolis, MN 55413

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aroe@merjent.com

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612-229-2933 cell