



January 6, 2016

North Dakota Public Service Commission
State Capitol Building
Department 408
600 East Boulevard Avenue
Bismarck, ND 58505-0480

Re: Case No. 10,268

Dear Ladies & Gentlemen:

As previously communicated to the North Dakota Public Service Commission (the **Commission**), Dakota Gasification Company (**DGC**) wishes to replace an approximately 1.1-mile length of its synthetic natural gas pipeline located in the SW1/4 of Section 30, Township 145 North, Range 87 West and the N1/2 and SE1/4 of Section 25, Township 145 North, Range 88 West in Mercer County, North Dakota.

As DGC is unable to run an intelligent pigging tool inside this run of the pipeline, DGC hopes to replace the pipeline in the location indicated in the attached Exhibit 1 (the **Replacement Line**).

DGC hired AECOM to perform a Replacement Line pedestrian survey 300 feet on either side of the Replacement Line centerline so as to determine if the Replacement Line and the activities associated with the Replacement Line will affect any known exclusion or avoidance area. AECOM's report is attached s Exhibit 2. AECOM's report recommends a *Finding of No Historical Properties Affected*.

Based upon that report and as required by subsection 3(3) of the North Dakota Century Code Section 49-22-03, DGC hereby certifies to the Commission that the Replacement Line and the activities relating to the Replacement Line will not affect any known "exclusion area" or "avoidance area" as those terms are defined by Section 69-06-08-02 of the North Dakota Administrative Code and that in undertaking construction of the Replacement Line, DGC certifies that it will comply with all of the applicable conditions and protections required by North Dakota Century Code Chapter 49-22, Chapter 69-06 of the North Dakota Administrative Code and the conditions of Permit No. 47 and the Order of the Commission dated December 23, 1982 in Case No. 10,268.

1 **PU-16-18** Filed: 1/7/2016 Pages: 46
Certification regarding exclusion and avoidance areas with supporting documentation

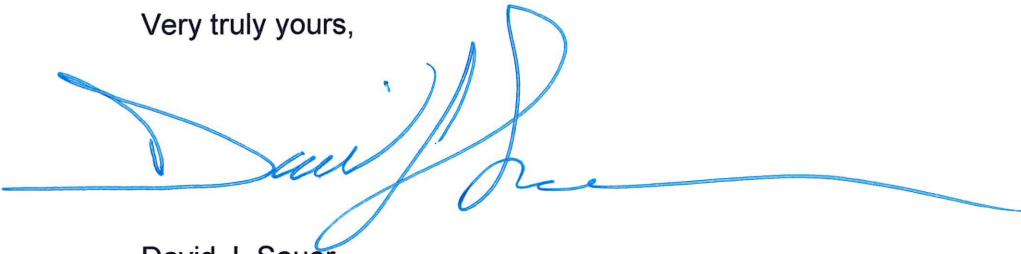


Dakota Gasification Company

David J. Sauer

For the record, DGC also certifies that no trees or shrubs will be impacted by construction of the Replacement Line.

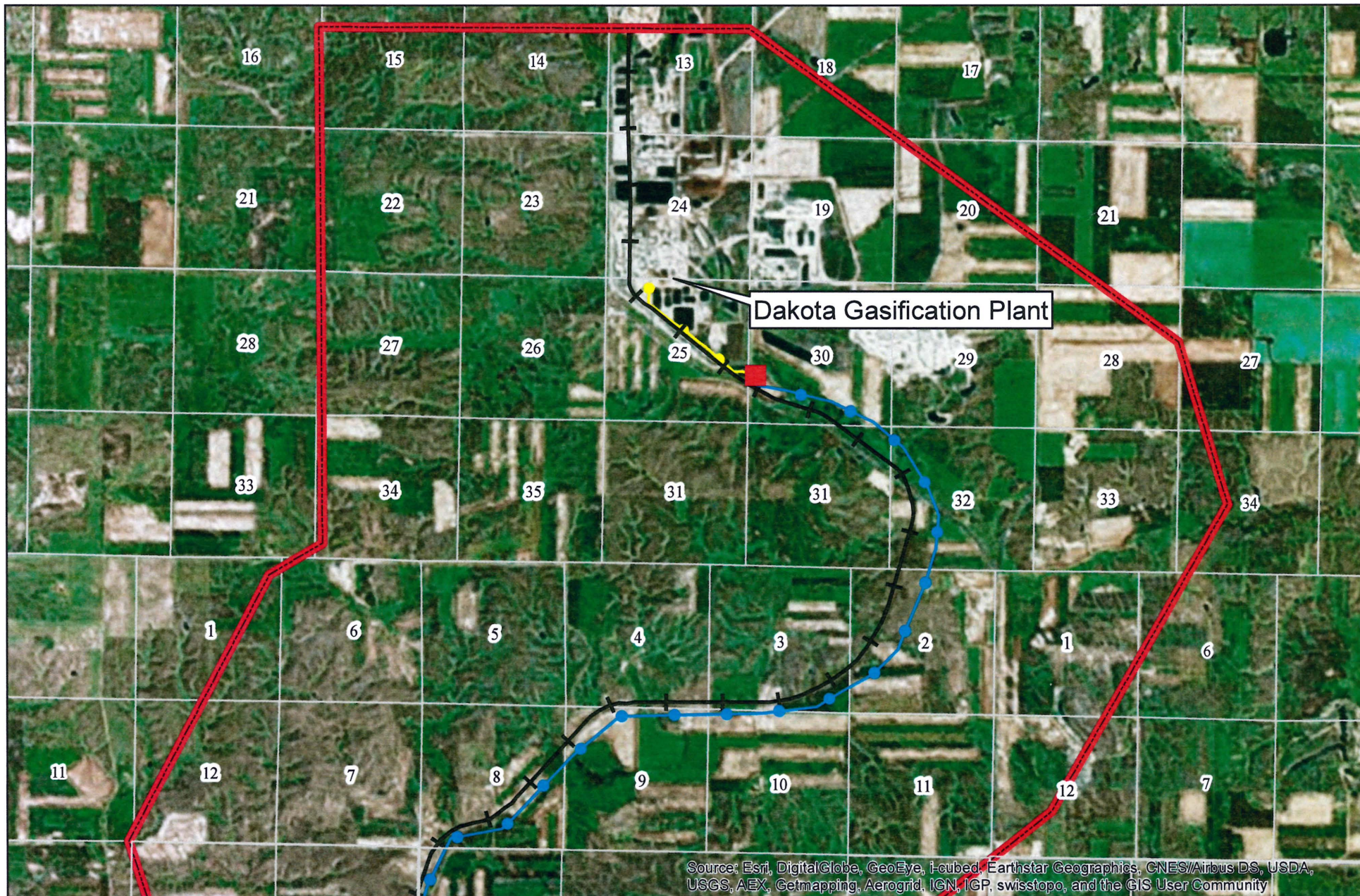
Very truly yours,

A handwritten signature in blue ink, appearing to read "David J. Sauer", is written over a horizontal blue line. The signature is fluid and cursive.

David J. Sauer
Vice President & Chief Operating Officer

mdf/mw

Attachments: Exhibit 1, Map of Replacement Line
Exhibit 2, DGC Reroute: A Class III Cultural
Resource Inventory Mercer County, North Dakota Report



Source: Esri, DigitalGlobe, GeoEye, i-ubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Legend**
- Burlington Northern Santa Fe
 - Designated Corridor (1982)
 - Existing Pipeline Route

- Portion of Existing Pipeline Being Replaced
- Meter Station
- PLSS Sections

0 0.35 0.7 1.4
Miles

November 2015

USGS 7.5' Quadrangle: Beulah
Township 145N, Range(s) 87 & 88W

Figure 1
Designated Corridor (Case Number 10268, 1982);
Proposed Partial Pipeline
 Dakota Gasification Company: Pipeline Replacement Project





DGC SYN FUEL PLANT

POTENTIAL LOCATION OF THE PIG LAUNCHER

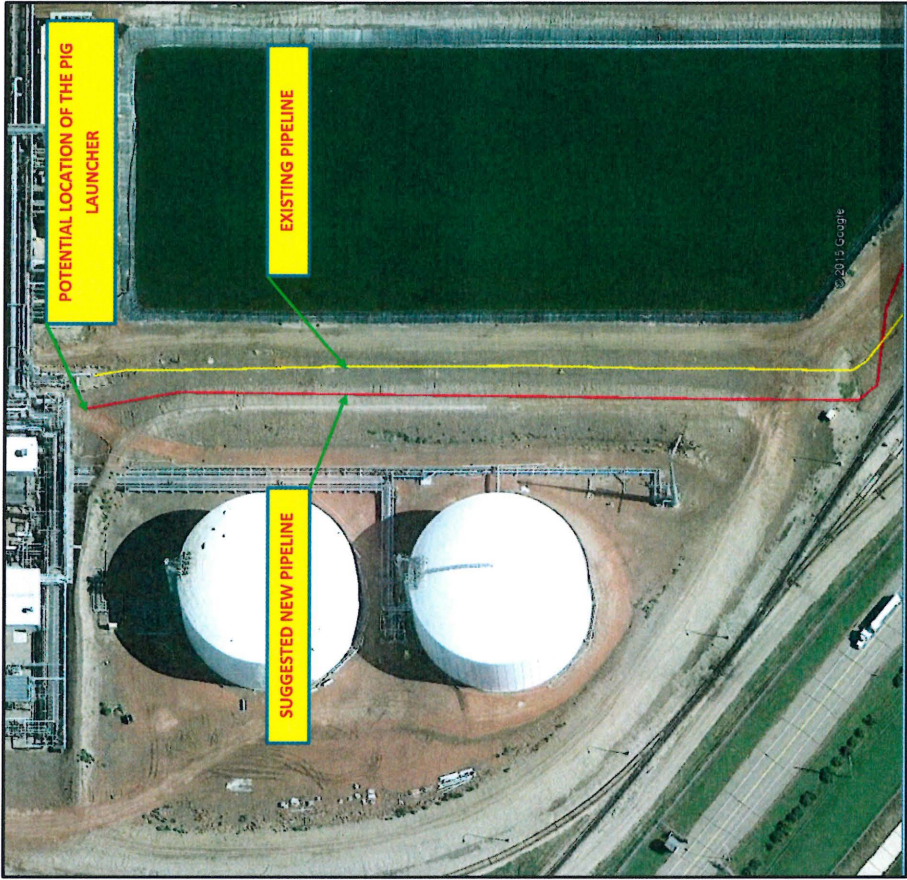
SUGGESTED NEW PIPELINE

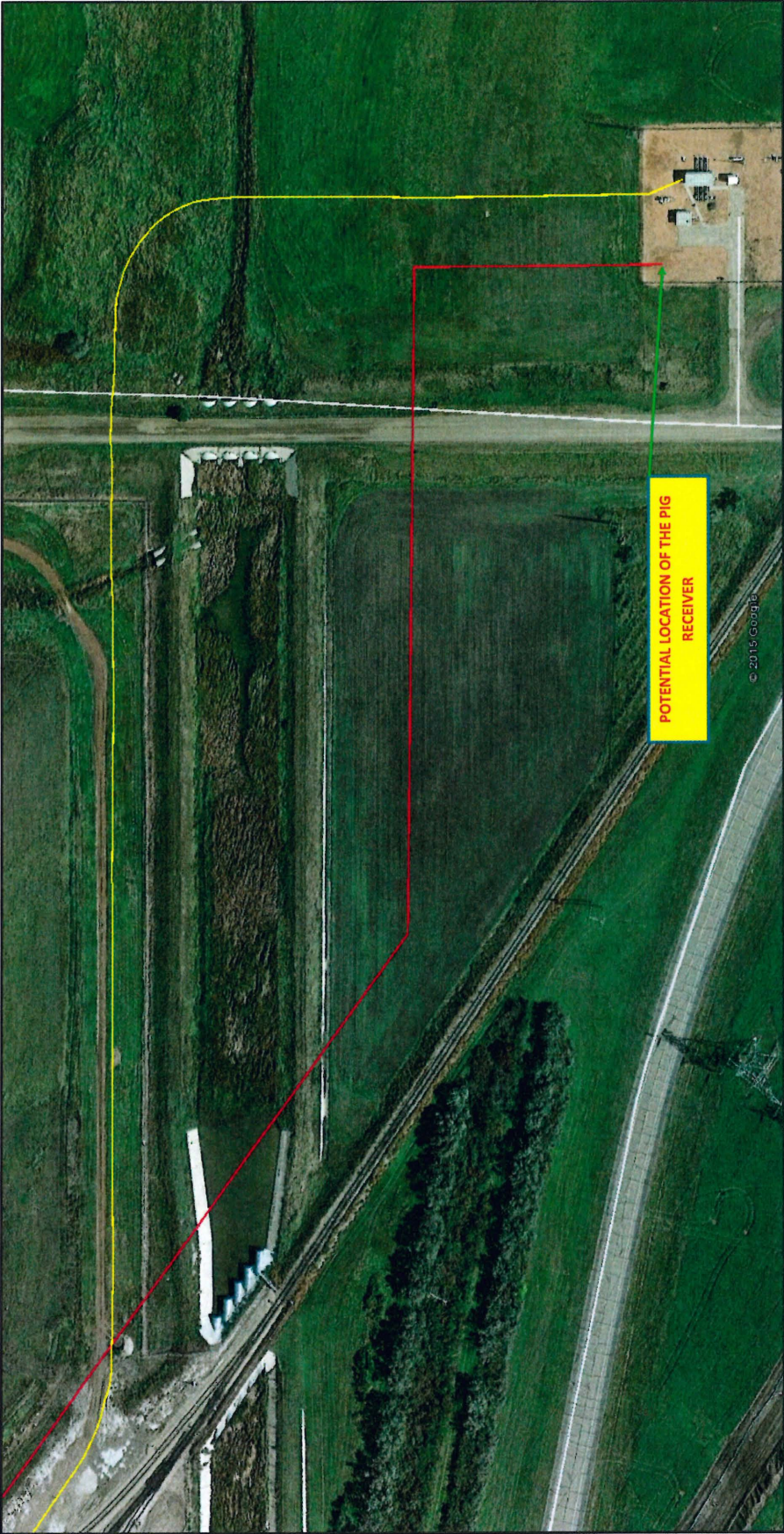
EXISTING PIPELINE

POTENTIAL LOCATION OF THE PIG RECEIVER

© 2015 Google

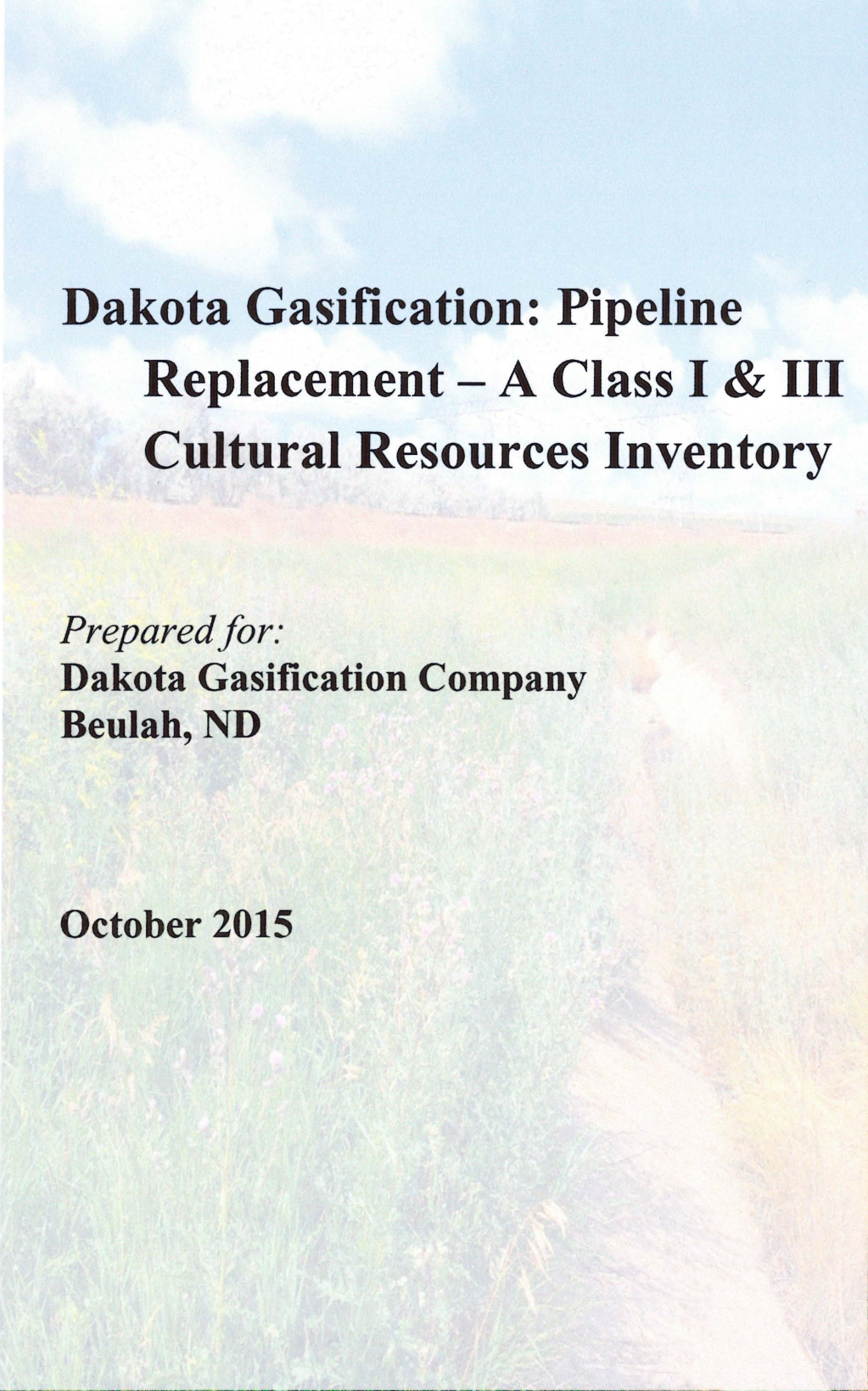
Google earth





POTENTIAL LOCATION OF THE PIG RECEIVER

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Dakota Gasification: Pipeline Replacement – A Class I & III Cultural Resources Inventory

Prepared for:
Dakota Gasification Company
Beulah, ND

October 2015

Principle Investigator: Melinda McCarthy, RPA
Report Author: Melinda McCarthy



AECOM

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Manuscript Data Record Form

1. Manuscript Number:
 2. SHPO Reference #:
 3. Author(s): Melinda McCarthy, PI RPA
 4. Title: Dakota Gasification Company: Pipeline Replacement
– A Class I & III Cultural Resources Inventory

 5. Report Date: October 2015
 6. Number of Pages: 30
 7. Type I, T, E, O I
 8. Acres: < 14 acres
 9. Legal Location(s) with Historic Context Study Unit(s):
- | <u>County</u> | <u>Township</u> | <u>Range</u> | <u>Section(s)</u> | <u>Study Unit</u> |
|---------------|-----------------|--------------|-------------------|-------------------|
| Mercer | 145N | 87W | 30 | Knife River |
| | 145N | 88W | 25 | Study Unit |

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AECOM

**Dakota Gasification: Pipeline
Replacement – A Class I & III Cultural
Resources Inventory**

Prepared for: Dakota Gasification Company
Beulah, ND

October 2015

AECOM Cultural Series Report No. 27

Principal Investigator: Melinda McCarthy, RPA
Report Author(s): Melinda McCarthy

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Abstract

AECOM was contracted by Dakota Gasification Company to conduct a Class I: Literature Review and Class III: Intensive Cultural Resource Inventory prior to the completion of a pipeline replacement project near Beulah, North Dakota. The project Area of Potential Effect (APE) is located in the SW $\frac{1}{4}$ of Section 30, Township 145 N, Range 87 W and the N $\frac{1}{2}$ and SE $\frac{1}{4}$ of Section 25, Township 145 N, Range 88 W, in Mercer County, North Dakota (Figure 1). The new pipeline will parallel the existing pipeline and a railway line. This survey was undertaken to determine the potential for the existence of cultural resources, which could be damaged or destroyed during the completion of the pipeline. The results of this report are based on the site conditions encountered during the July 16, 2015 site visit.

The project area is located off of County Road 26, northwest of Beulah, ND. The northern half of the of the project APE is located within the Dakota Gasification Plant, while the southern half is located largely in an area of wetland and previous ground disturbance. Ground surface visibility in the APE ranged from 0-75%.

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Project Overview

In March 2015, AECOM was contracted by Dakota Gasification Company (DGC) of Beulah, North Dakota to conduct a Class I: Literature Review and Class III: Intensive Cultural Resource Inventory prior to the completion of a pipeline replacement near Beulah, North Dakota. The project Area of Potential Effect (APE) is located in the SW $\frac{1}{4}$ of Section 30, Township 145 N, Range 87 W and the N $\frac{1}{2}$ and SE $\frac{1}{4}$ of Section 25, Township 145 N, Range 88 W, in Mercer County, North Dakota (Figure 1). The new pipeline will parallel the existing pipeline and railway line and be located entirely on the eastern side, railroad north, of the rail line. The approximately 1.10 mile APE for this project is 150 feet (ft) wide. This 41 acre survey was undertaken to determine the potential for the existence of cultural resources, which could be damaged or destroyed during the completion of the pipeline.

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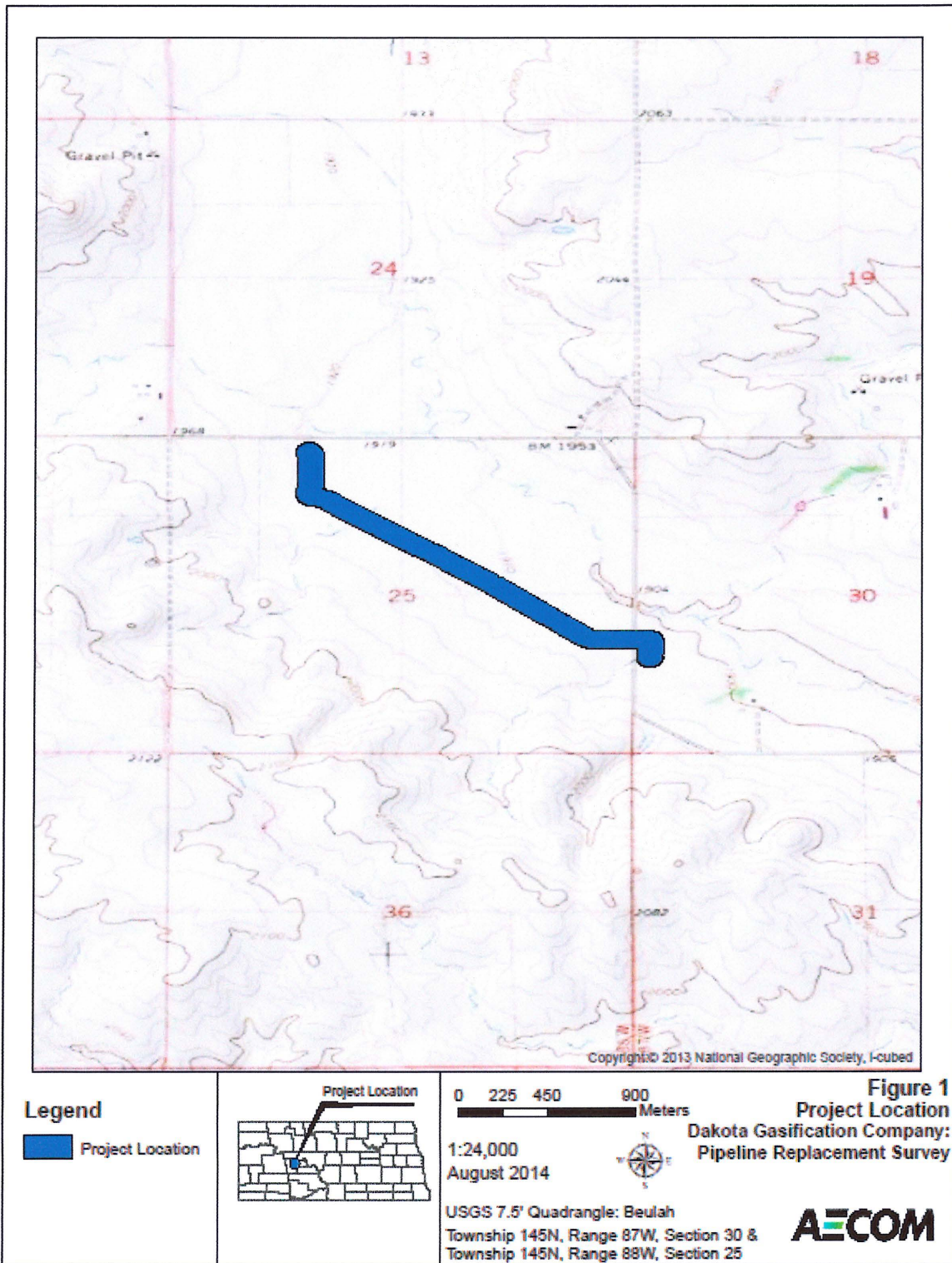


Figure 1: Dakota Gasification Company Pipeline Replacement Project Location.

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Cultural and Environmental Background

The project area falls into the Knife River Study Unit of the *North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component* (State Historical Society North Dakota [SHSND] 2008). This document details the setting of the project area and should be referenced for cultural background information.

The survey area is located in the Missouri Plateau section of the Northwestern Great Plains Ecoregion (Bryce et al. 1998). Flora within this area commonly consists of wheatgrass, blue grama needlegrass, little bluestem, and prairie sandreed.

The area is largely utilized for dryland farming and cattle grazing. Spring wheat, barley, oats, and sunflower are the predominate crops. This cultivation has had an impact the natural fauna of the area (Bryce et al. 1998). Local fauna currently includes migratory birds, Black-footed ferrets, grey wolves, bald and golden eagles, foxes, white-tailed deer and buffalo (SHS ND 2008).

Literature Search

Karen Jordan (Field Director) of AECOM performed a file search at the SHSND on June 15, 2015. A one-mile study area was established around the project APE. The file search identified 12 previous cultural resource surveys completed in this study area (Table 1).

Two of the 12 previous cultural resource surveys cross into the project area (MS. 13885 & 14112). Thirty-nine sites and seven isolated finds were identified within the one-mile boundary (Table 2). One previously recorded site was located on the western edge of the the project APE (32ME2246).

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Table 1: Previous cultural resource studies identified during the literature review.

MS. No.	Author	Report Title	Year
32	Woolworth Research Associates	A Final Report on the Archaeological/Historical Assessment Program for the North Dakota Coal Gasification Project in Mercer County, North Dakota	1974
143	Noble, B.	EMRIA Reclamation Studies Drilling Locations: Cultural Resources Report, Mercer Co., ND	1977
225	Dill, C.	1977 Cultural Resources Inventory: Antelope Valley Station/A.N.G.C.G.C. Gasification Plant Site, Associated Mining Areas and Ancillary Facilities, Mercer Co., ND	1976
260	Dill, C.	Basin Electric Power Cooperative Mercer County Plant Negative Declaration Survey Report	1976
306	Woolworth, A. & N. Woolworth	A Report on the Archaeological and Historical Reconnaissance Survey of the Great Lakes Gas Transmission Company Pipeline Route in North Dakota and Minnesota	1978
3231	North American Consultants	Cultural Resources Survey of Mines Areas 1, 2, and 4, the Coteau Properties Company, Mercer County, North Dakota	1984
7343	Klinner, D.	Mercer County Road Improvement Project in Section 13, 14, 23, and 24, T145N, R88W, North Dakota UW #2125	1999
7610	Boughton, J., L. Litwinionek, & S. Wlker-Kuntz	Cultural Resources Inventory of Permit Area Extensions D and H and the West Permit Area, Mercer County, North Dakota	2000
8531	Boughton, J., B. Fandrich, L. Litwinionek, L. Peterson, & L. Peterson	Coteau Properties Company: Testing and Criterion D Evaluation of Prehistoric Sites Located in Permit Extension Areas D and H and the West Permit Area, Mercer County, North Dakota	2001

9942	Hope, S., J. L.A. Peterson, L.M. Peterson, & J. Bales	Coteau: Data Recovery in the West Mine Area, Mercer Co., ND	2006
12254	Jackson, M., D. Toom & M. Lonski	Zap Service Area Phase I Rural Distribution Lines 2010 A Class III Cultural Resources Inventory Southwest Water Pipeline Project, Mercer and Oliver Counties, ND	2011
13885	Bluemle, W.	Basin Electric Power Cooperative's AVS Natural Gas Pipeline: A Class III Cultural Resources Inventory in Mercer County, North Dakota.	2012
14112	Engel, D.	Basin Electric Power Cooperative's AVS Natural Gas Pipeline – Addendum 1: A Class III Cultural Resources Inventory in Mercer County, North Dakota	2013

Table 2: Cultural sites identified within a 1-mile boundary of the project area.

Cultural Resource(s)	Year	Aliquot Parts	Site Type	Previous NRHP Recommendation/ Status	Comments
Township 145 North, Range 87 West, Section 19					
32ME252	1990	S,SW	Historical Archaeological	Unevaluated	Historic coal mine and homestead
32ME711	1984	E,SE,SW	Historical Archaeological	Not Eligible	Abandoned mine and homestead
32MEX199	1985	SE,SW,SE	Isolated Find	Not Eligible	1 piece chipped stone
32MEX202	1983	SW,NE,SW	Isolated Find	Not Eligible	1 piece chipped stone
32MEX203	1983	SW,NE,SW	Isolated Find	Not Eligible	1 piece chipped stone
Township 145 North, Range 87 West, Section 30					
32ME286	1984	SE,SW,SW	Historical Archaeological	Unevaluated	Trash scatter from a historic farmstead
32ME688	1983	NE,NE,NE	Archaeological	Unevaluated	Lithic scatter
32ME689	1983	E,SW,NE	Archaeological	Unevaluated	Lithic scatter
32ME690	1983	SW,SW,NE	Archaeological	Unevaluated	Lithic scatter
32ME691	1983	NE,NE,SW	Archaeological	Unevaluated	Lithic scatter
32ME692	1983	NE,SE,SW	Archaeological	Unevaluated	Lithic scatter
32ME724	1983	W,NW,NE	Architectural	Not Eligible	Historic farmstead
32ME2157	2008	SW,SW,SW	Architectural	Not Eligible	Historic steel stringer bridge
32ME2246	2014	S,SW	Historical Archaeological	Eligible	Northern Pacific Railroad
32MEX212	1983	NE,SE,SE	Isolated Find	Not Eligible	1 piece chipped stone
32MEX213	1983	SW,SW,NW	Isolated Find	Not Eligible	1 piece chipped stone
Township 145 North, Range 87 West, Section 31					
32ME168	2000	SW,SW,SE	Archaeological	Not Eligible	3 stone circles and 2 cairns

32ME169	2006	S,NE,SE	Archaeological	Eligible	16 stone circles, 1 crain, 36 tools, and 6,308 flakes
32ME170	2000	SW,SW,SW	Archaeological	Not Eligible	4 stone circles and 1 cairn
32ME171	2006	NW,SW,NW	Archaeological	Eligible	3 stone circles, 1 cairn, 3 tools, and nine flakes
32ME703	2000	NE,NE,NE	Archaeological	Not Eligible	Lithic scatter
32ME704	2000	NE,SW,SE	Historical Archaeological	Not Eligible	Historic lignite mine
32ME2246	2014	N,NE	Historical Archaeological	Eligible	Northern Pacific Railroad
Township 145 North, Range 88 West, Section 23					
32ME249	1999	SE,SE,SW	Historical Archaeological	Not Eligible	Concrete foundation
32ME250	2000	W,SE,SW	Archaeological	Not Eligible	2 stone circles and 8 flakes
32ME251	1999	NE,NW,SE	Archaeological	Not Eligible	4 stone circles
32ME767	2012	SE,SE,SE	Historical Archaeological	Not Eligible	Historic farmstead
Township 145 North, Range 88 West, Section 24					
32ME224	1979	N,N,SE	Historical Archaeological	Unevaluated	Abandoned farmstead and historical trash
32ME2246	2014	W,W	Historical Archaeological	Eligible	Northern Pacific Railroad
Township 145 North, Range 88 West, Section 25					
32ME226	2000	SW,SE,SE	Archaeological	Not Eligible	14 stone circles, 2 cairns, and 8 flakes
32ME2246	2014	N,N,NW	Historical Archaeological	Eligible	Northern Pacific Railroad
32MEX215	1983	SE,SW,NW	Archaeological	Not Eligible	1 piece chipped stone
32MEX216	1983	SW,NW,SE	Archaeological	Not Eligible	Projectile point
Township 145 North, Range 88 West, Section 26					
32ME204	2006	W,SE,NE	Archaeological	Not Eligible	5 stone circles, 2 cairns, 1 tooth fragment, and 1 flake

32ME205	2000	SW,SE	Archaeological	Not Eligible	6 tools and 577 flakes
32ME291	1999	N,NE,NW	Architectural	Not Eligible	Historic farmstead
32ME763	1999	S,SE,NW	Historical Archaeological	Not Eligible	2 historic lignite mines and trash scatter
32ME764	1983	NW,SE,NW	Historical Archaeological	Unevaluated	4 foundations and several deep depressions
32ME765	1999	E,SE,NE	Historical Archaeological	Unevaluated	Historic farmstead and trash scatter
32ME766	2000	SW,NW,NE	Archaeological	Not Eligible	Lithic scatter
32ME1518	1999	SW,NE,SE	Archaeological	Unevaluated	Cairn
32ME1519	2000	NE,SE,NE	Archaeological	Not Eligible	1 stone circle, 1 cairn, an alignment composed of 23 small cairns and 3 flakes
Township 145 North, Range 88 West, Section 36					
32ME170	2000	SE,SE,SE	Archaeological	Not Eligible	4 stone circles and 1 cairn
32ME226	2000	W,NE,NE	Archaeological	Not Eligible	14 stone circles, 2 cairns, and 8 flakes
32ME230	2000	E,NE,SW	Archaeological	Not Eligible	4 stone circles and 3 flakes
32ME698	2000	SW,NE,SE	Archaeological	Unevaluated	1 stone circle, 1 cairn, and 2 flakes
32ME1599	2000	NW,SE,SE	Archaeological	Unevaluated	2 stone rings, possible hearth, and 1 cairn
32ME75	2004	S,SW,SE	Archaeological	Unevaluated	12 stone rings and 1 cairn
32ME145	2000	SE,NE,NW	Archaeological	Not Eligible	4 stone circles and a stone lined depression

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Field Methods

The pedestrian field survey was conducted by Melinda McCarthy (Principle Investigator) and Karen Jordan on July 16, 2015, following SHSND guidelines (SHSND 2012). Survey methods were adjusted as field conditions required. The pedestrian survey was completed by walking transects ranging between 5 to 10 meters apart based on the potential for cultural resources, terrain and Ground Surface Visibility (GSV). Areas of previous ground disturbance and standing water were photographed and marked on a field map (Figure 2). No shovel probes were utilized during this survey, as all areas of GSV below 30% were located in heavily disturbed or wetland areas.

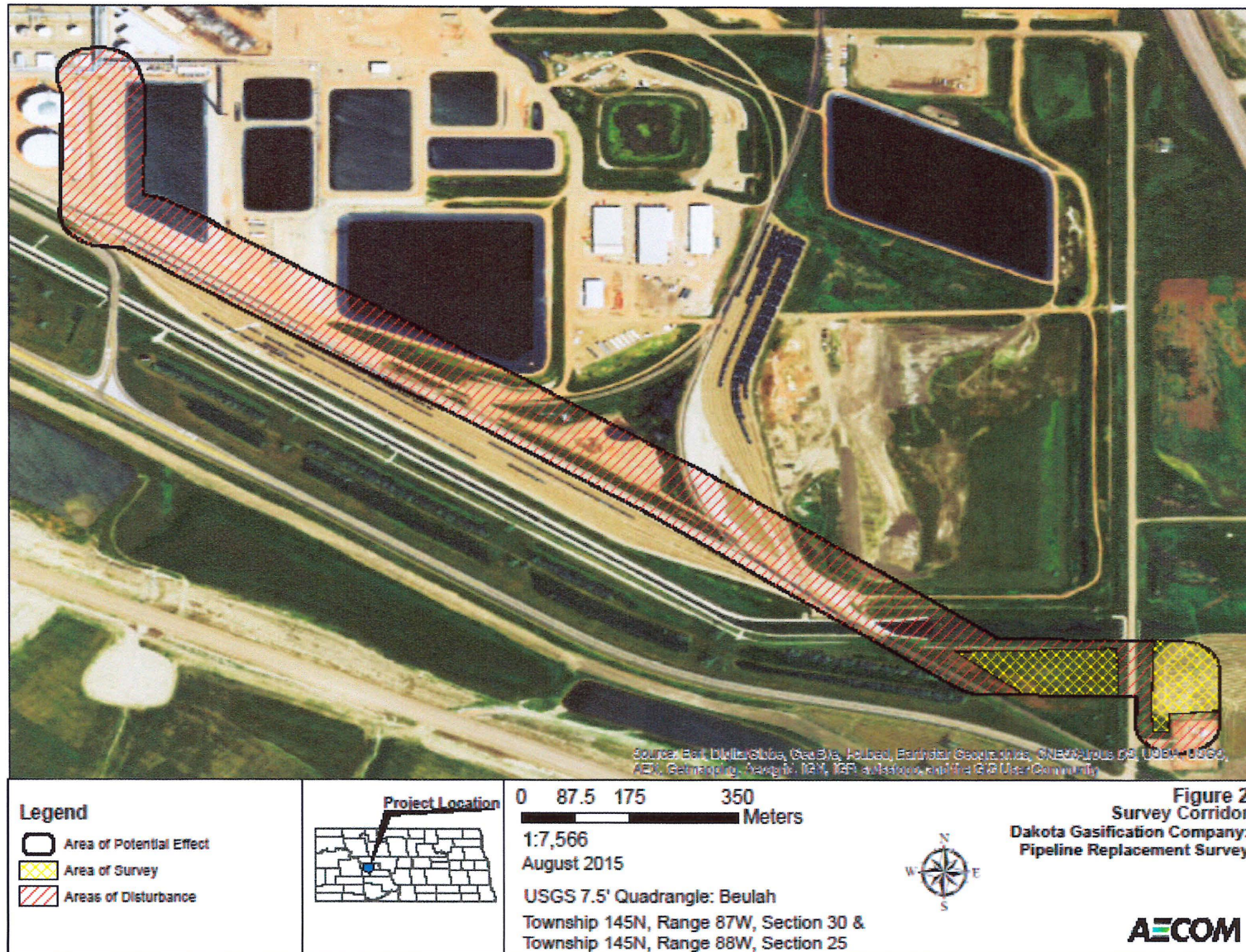
The northernmost portion of corridor was located within the Dakota Gasification Plant (the Plant). This 0.82 miles of the survey area initially trended north-south following an existing pipeline (Figure 3 & 4). The survey corridor continued to follow the existing pipeline, turning northwest-southeast to run along the southern edge of the Plant.

Along the southern edge of the Plant, the survey corridor on the southwestern side of the right-of-way parallels the Northern Pacific Railroad train yard (32ME2246) and its associated berms and drainage ditches (Figure 5 & 6). The northeastern side of the corridor encompasses the southern edge of the Plant, the existing pipeline corridor, a gravel road, and an equipment storage area (Figure 7 & 8). At the southern end of the train yard, the survey corridor crosses the Northern Pacific Railroad and continues to follow the existing pipeline, turning west-east for 0.23 miles, before once again trending north-south for 0.05 miles to connect to an existing meter station.

The northern and eastern portions of this final 0.23 miles of corridor contain a concrete drainage, a berm with a gravel road, the existing pipeline, and two wetland areas (Figure 9 & 10). The southern and western portions are located within flat hay fields. Ground visibility within this area was approximately 30% and standing water was present in large sections of the fields (Figure 11).

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Figure 2: Areas of disturbance and survey within the APE.



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Figure 3: Section of the survey corridor located within the Plant. Note existing pipeline on the western side of the right-of-way. Photo taken from the center of the APE, view to the North.



Figure 4: Overview showing the evaporation pond, existing pipeline, monitoring wells, and large berm which all intrude into the right-of-way. Photo taken from the center of the APE, view to the South.



Figure 5: Overview of the area where the survey corridor turns from trending north-south to northwest-southeast. Photo taken from the western edge of the APE, view to the Southeast.



Figure 6: Area along the southern edge of the Plant showing heavy disturbance from the Northern Pacific Rail Road, roads, berms, and drainage ditches. Photo taken from the center of the APE, view to the Southwest.



Figure 7: Overview of the survey corridor running along the southern edge of the Plant showing the work space (at left) and Northern Pacific Rail Road (at right). Photo taken from the center of the APE, view to the Southeast.



Figure 8: Survey corridor running along the southern edge of the Plant showing the existing pipeline (at left) and Northern Pacific Rail Road (at right). Photo taken from the western side of the APE, view to the Southeast.



Figure 9: Overview of area where the survey corridor leaves the Plant and turns to runs east-west. Note concrete drainage with large berm (at right) and the Northern Pacific Railroad (at left). Photo taken from the center of the APE, view to the West.



Figure 10: Overview of hay field and the meter station at the southern end of the survey corridor. Photo taken from the center of the APE, view to the southeast.



Figure 11: Ground surface visibility within the hay fields in the southern portion of the APE.



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Survey Results

The cultural resources inventory resulted in the identification of no new cultural resources. A vast majority of the project area was clearly previously disturbed. A pedestrian survey was completed within two flat hay fields along the southern end of the project area. No cultural materials were uncovered during the survey of these fields. The presence of gravels, scoria, and dirt piles visible across both fields strongly suggest these areas were previously disturbed as well.

During the course of this inventory one previously recorded historic site was observed. Site 32ME2246 (Northern Pacific Railroad) runs along the southwestern edge of the APE, before crossing and leaving the corridor. Although site 32ME2246 occupies a portion of the APE, a berm, drainage ditches, and a roadway separate the site from the main project area. No construction activities will be completed near the site and the berm and drainage ditches will protect the site from impacts. The portion of the site which crossed the APE will be avoided by boring underneath the tracks. Site 32ME2246 was not assessed for NRHP eligibility as the Project has been designed to avoid the site and the subterranean nature of the replacement pipeline will avoid viewshed impacts.

Recommendations

During the inventory, one previously recorded historical archaeological site was observed. No other archaeological or architectural properties were identified during the pedestrian survey within the APE. Additionally there is a low potential for buried archaeological materials in the APE due to the heavily disturbed nature of the area and the absence of cultural material present on the surface.

The project will avoid impacting site 32ME2256 by containing all construction work to the northern side of the railway drainage ditches, as well as by boring under the rail line where it crosses the APE.

Due to the presence of an existing pipeline, the subterranean nature of the replacement pipeline, a majority of the APE being previously disturbed, and the precautions being taken to avoid impacting 32ME2246, AECOM is recommending a finding of no further work needed and a determination of “No Historic Properties Affected” for the proposed project herein, as mapped and surveyed.

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Works Cited

Bryce, S.A., Omernik, J.M., Pater, D.A., Ulmer, M., Schaar, J., Freeouf, J., Johnson, R., Kuck, P., and Azevedo, S.H.

1996 Ecoregions of North Dakota and South Dakota (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey. Web Access, May 27, 2015. http://www.epa.gov/wed/pages/ecoregions/ndsd_eco.htm#

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2008 *North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component*. http://history.nd.gov/hp/stateplan_arch.html.

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