

**PHASE I ENVIRONMENTAL
SITE ASSESSMENT
LEWIS & CLARK REGIONAL
WATER SYSTEM, INC.
BERESFORD SERVICE LINE EXTENSION
UNION COUNTY, SOUTH DAKOTA**

GEOTEK #09-151





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November 5, 2009

Lewis & Clark Regional Water System, Inc.
401 E. 8th Street, Suite 306
Sioux Falls, SD 57103

Attn: Mr. Troy Larson

Subj: Phase I Environmental Site Assessment
Lewis & Clark Regional Water System, Inc.
Beresford Service Line Extension
Union County, South Dakota
GeoTek #09-151

Dear Mr. Larson

We have completed a Phase I Environmental Site Assessment for the referenced project. We are transmitting three copies of our report. This work was done in accordance with our February 19, 2009 contract.

Please refer to our conclusions and recommendations for the major findings and recommendations we have made.

If you have questions or concerns regarding the information presented in this report, or if we can be of additional service, please contact our office.

GeoTek Engineering & Testing Services, Inc.

Jason P. Cook, CIH
Senior Project Manager
ABIH Cert#9376CP

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**Phase I Environmental Site Assessment
Lewis & Clark Regional Water System, Inc.
Beresford Service Line Extension
Union County, South Dakota**

GeoTek #09-151

SUMMARY

Our Phase I Environmental Site Assessment has not identified recognized environmental conditions in association with the referenced site.

INTRODUCTION

Purpose

This Phase I Environmental Site Assessment was conducted during the period of September 2 to November 5, 2009. The purpose of this Phase I Environmental Site Assessment was to evaluate the potential presence of hazardous substances and soil/groundwater contamination due to past/current land use practices at the site, or from nearby off-site operations.

Scope of Services

The scope of services for this assessment was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-2005 (plus site observations for asbestos materials and wetlands) and included the following tasks:

1. Review of information on the geology and hydrogeology of the site vicinity. Review of available information, if any, regarding previous sampling and analysis of soil, groundwater or surface water conducted at the site.
2. Review of the subject property, records, and interview of individuals associated with the property regarding the present or past existence of suspect asbestos containing materials, environmental permits or licenses, hazardous or potentially hazardous substances, distressed vegetation, stained soil, unusual grade changes, random dumping or on-site disposal, suspect lead containing materials, suspect polychlorinated biphenyls (PCBs), and underground/aboveground storage tanks.
3. Conduct a site vicinity reconnaissance to identify nearby off-site facilities that could potentially impact the subject property.

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4. Review of available historical resources such as aerial photographs, fire insurance maps, tax assessor records, recorded land title records, USGS topographic maps, street directories, county atlases, and building department records, to identify, as nearly as possible, past uses of the property.
5. Review of reasonably available regulatory agency information and records. Verbal and/or written communication with federal, state and local environmental regulatory agencies having jurisdiction to determine compliance with regulations concerning the usage, storage, treatment and disposal of hazardous substances.
6. Visually observe property for evidence of wetlands. Interview landowners for historic knowledge of presence of wetlands. If available, review a published wetlands map from USDA or US Fish & Wildlife Service.
7. Preparing a report presenting our observations, pertinent documents, opinions, and recommendations.

Significant Assumptions

This report presents the results of our work performed at the referenced site. This work was performed in accordance with our February 19, 2009 contract (copy in Appendix D).

Limitations and Exceptions

Information contained herein was obtained through a limited work scope by means of interviews, document research, and on-site observations. Conclusions are based on available information. However, this is not to imply that this is all of the information that exists which may be pertinent to the environmental liabilities of the site. The intent of this study was to identify environmental problems that would be evident to an environmental professional and was not intended to represent an exhaustive research of all potential hazards which may exist. Furthermore, certain potential environmental hazards reported in this study may require more comprehensive analysis to fully assess their magnitude and financial impact.

This report is representative of present conditions only. Situations or activities which occur subsequent to this report and which result in adverse environmental impacts are not relevant to this study.

Special Terms and Conditions

The scope of our services did not include collecting or analyzing physical evidence for the presence or lack of contaminants such as asbestos, urea formaldehyde, mold, petroleum, PCBs, radon gas, fertilizers, herbicides, pesticides or other substances unless stated above.

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Similarly, an assessment of mineral rights investigation, drinking water testing, indoor air quality (including vapor intrusion), or environmental audits of operations, environmental practices or management was also not included in the scope of work.

With respect to our review of recorded land title records (if provided by Client), we have not provided an opinion as to marketability of title and have not otherwise warranted as to condition of title.

User Reliance

No individual, corporation, or interest other than Lewis & Clark Regional Water System, Inc., may rely on this report without prior authorization from GeoTek Engineering & Testing Services, Inc.

SITE DESCRIPTION

Location and Legal Description

The site consists of cropland and rural residential yards in Union County, South Dakota. This pipeline segment lies along the south corporate city limits of Beresford, SD and primarily follows a west to east path along a section of 298th Street (SD Hwy 77).

The Beresford Service Line Segment runs east-west along 298th Street from the intersection of 298th Street and 471st Avenue to approximately 500 feet east of the intersection of 298th Street and S. 3rd Street. The pipeline route is approximately 2,600 feet long. The proposed total right of way width of both the permanent and temporary construction easement is approximately 100'.

There are 3 separate parcels. The approximate legal description and owners of the parcels are on lists in Appendix E. Additionally, although not listed in Appendix E, the proposed pipeline easement also crosses a township road (298th Street) and a city street within Beresford (S. 3rd Street).

Site and Vicinity General Characteristics

The site and vicinity is mixed rural agricultural land (mostly cropland; some pasture or hay), and rural residential. The proposed pipeline easement crosses several roads and driveways.

Current Use of the Property

The site consists of rural agricultural land (mostly cropland; some pasture or hay), and rural residential land.

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Description of Improvements

Improvements on the site are:

- paved highways (298th Street)
- gravel driveway (Sections 8-95-50)
- livestock fencing (barbed wire) along many property boundaries.
- Circular concrete pad (9.5' diameter) (SE ¼ 5-95-50)

Current Uses of Adjoining Properties

The vicinity consists of rural agricultural land (cropland, pasture, hay land, residences, farmsteads). Land to the north is recreational (golf course) and residential land. Land to the east is agricultural and residential land. Land to the south is agricultural and residential land. Land to the west is a county road, and agricultural land.

A drive-by survey of the immediate site vicinity revealed the following items of apparent significance such as suspect UST locations; potential hazardous waste generators, industrial properties, etc:

1. Waste disposal observed adjacent to the site:
 - a pile of rock and concrete debris was observed at the residence located south of the intersection of S. 3rd Street and 298th Street.
2. A pickup truck with a caged plastic tank (unknown contents), in the bed of the truck, was observed at the residence located south of the intersection of S. 3rd Street and 298th Street.
3. Beresford Country Club (golf course) is located adjacent to the west half of the pipeline segment (north of 298th Street).

USER PROVIDED INFORMATION

The user of this report may conduct certain tasks to assist in identifying possible recognized environmental conditions of the site. There were no significant items identified by the user. We have not been informed of environmental liens, activity or land use limitations, or a value reduction of the subject property due to environmental reasons.

Previous Phase I Environmental Site Assessments (ESAs) are not known to exist for the subject property.

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On adjacent land (west of the subject property), one previous Phase I Environmental Site Assessment was conducted by GeoTek Engineering & Testing Services, Inc. for Lewis & Clark Regional Water System Beresford Service Line Segment), GeoTek report #07-268, dated August 30, 2007). There were no significant findings regarding the subject property.

Abstracts of title or other title records for the subject property were not available for review.

The reason this Phase I Environmental Site Assessment was performed was to attempt to identify significant environmental risks, if present, for the proposed pipeline easement and installation.

RECORDS REVIEW

Copies of regulatory lists reviewed or databases searched are attached in Appendix C.

National Priority List

The U.S. Environmental Protection Agency (EPA) National Priority List (NPL) was reviewed for facilities within an approximate one mile radius of the subject property. The NPL is a list of federal superfund sites of known releases or threatened releases of hazardous substances, pollutants or contaminants throughout the United States. The NPL serves to identify sites which appear to warrant remedial actions or investigations.

There were no listed sites within the radius reviewed.

CERCLIS List

The U.S. E.P.A. CERCLIS (Comprehensive Environmental Cleanup Liability Information System) list was reviewed for facilities within an approximate one-half mile radius of the subject property. The CERCLIS list is an automated inventory system used by the EPA to keep record of hazardous sites or potential uncontrolled hazardous sites which may require cleanup based upon state investigation efforts and upon notifications received as provided by the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA or "Superfund"). It does not necessarily imply that an environmental problem exists at any particular site listed. The sites are in various stages of investigation.

There were no listed sites within the radius reviewed.

Archive CERCLIS List

The U.S. E.P.A. CERCLIS (Comprehensive Environmental Cleanup Liability Information System) list of NFRAP (no further remedial action planned) sites was reviewed for facilities within an approximate one-half mile radius of the subject property.

There were no listed sites within the radius reviewed.

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RCRIS List

The U.S. E.P.A. Resource Conservation and Recovery Information System (RCRIS) list was reviewed for facilities within an approximate one-fourth mile radius of the subject property (one mile radius for treatment, storage, and disposal facilities, and facilities subject to corrective action). The RCRIS site list is a printout of permitted generators and transporters of hazardous waste, and hazardous waste treatment, storage or disposal facilities regulated by the RCRA Act of 1976.

LQG = large quantity generator, over 1000 kilograms (about 2200 lbs)/month of hazardous waste.

SQG = small quantity generator, 100-1000 kg (about 220-2200 lbs)/month of hazardous waste.

CESQG = conditionally exempt small quantity generator, less than 100 kg (about 220 lbs)/month of hazardous waste.

There were no listed sites within the radius reviewed.

Federal Brownfields Sites

A brownfield site is real property for which the expansion, redevelopment or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Mine scarred lands may also be considered a brownfield site. EPA grants are available for assessment, cleanup, revolving loans funds and job training. The intent of the grants is to promote assessment, cleanup and reuse of brownfields. The list was reviewed for facilities within an approximate one-half mile radius.

There were no listed sites within the radius reviewed.

Emergency Response Notification System

This EPA list of reported spills was reviewed for facilities within an approximate one-fourth mile radius of the subject property.

There were no listed sites within the radius reviewed.

Federal Institutional Control/Engineering Control Registry

Institutional controls are a legal or administrative restriction on the use of or access to a site to reduce or eliminate potential exposure to hazardous substances or petroleum in soil or groundwater, or to prevent activities that interfere with a response action. Engineering controls are physical modifications to a site to reduce or eliminate potential exposure to hazardous substances or petroleum in soil or groundwater.

There were no listed sites within the radius reviewed.

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South Dakota Department of Environment and Natural Resources (DENR)

A. There were no open or pending investigations involving a spill, leakage, or contamination of soil and water within an approximate 1/2 mile radius of the subject property.

B. Closed, inactive, or no further action status investigations involving a spill, leakage, or contamination of soil and water within an approximate 1/2 mile radius of the subject property were:

1. DENR #81.003 KUSD-FM transmitter site. (PCB – no qty listed)
2. DENR #89.197 Beresford School District, 7th & W. Maple. (Gasoline – no qty listed)
3. DENR #96.092 Farmers Elevator, East 13th Street (400 gal.- Treflan)
4. DENR #97.197 Farmers COOP Elevator, Hwy 77 south of Beresford. (66 gal. – Bucril & Atrazine)
5. DENR #98.152 Beresford School District, 301 W. Maple. (Fuel Oil – no qty listed)
6. DENR #2004.007 MidAmerica Energy, 405 S. 2nd Street. (Mercury (elemental) – 1 mg)
7. DENR #2001.519 ATP G. Sundstrom. (Abandoned Tank Project), 3rd & Willow.

C. Registered underground or aboveground storage tanks (USTs & ASTs) within an approximate 1/4 mile radius of the subject property are listed below:

1. Kennedy & Soderstrom Inc., RR3 Box 23, Beresford: 1 UST (removed)

D. State Brownfields Sites

A brownfield site is real property for which the expansion, redevelopment or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Mine scarred lands may also be considered a brownfield site. SD DENR assistance is available for targeted assessment and perhaps cleanup. There are also revolving loans funds. The intent of the program is to promote assessment, cleanup and reuse of brownfields. The list was reviewed for facilities within an approximate one-half mile radius.

There were no listed sites within the radius reviewed.

E. State Institutional Control/Engineering Control Registry

Institutional controls are a legal or administrative restriction on the use of or access to a site to reduce or eliminate potential exposure to hazardous substances or petroleum in soil or groundwater, or to prevent activities that interfere with a response action. Engineering controls are physical modifications to a site to reduce or eliminate potential exposure to hazardous substances or petroleum in soil or groundwater. At this time, we are not aware of a state registry or list of such facilities.

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F. DENR Permitted Solid Waste Facilities

A list of DENR permitted solid waste facilities such as active and closed landfills, rubble sites, ash monofill, sludge monofill, transfer stations, petroleum contaminated soil landfarms, etc., was reviewed for facilities within an approximate one-half mile radius of the subject property.

There were no listed sites within the radius reviewed.

G. Storm Water Discharge

DENR administers federal regulations (40 CFR 122-123) for storm water discharges from industrial facilities, or construction activities involving over one acre of earthwork or land disturbance. If over one acre of land will be disturbed, a notice of intent to be covered under the state's general permit should be submitted to DENR at least 15 days prior to conducting work. As part of the permit, a pollution prevention plan must be developed and implemented.

SD also has a general permit for temporary dewatering and temporary water use. If temporary or long term dewatering is conducted, the appropriate notice of intent to be covered under the state's general permit for those activities should be submitted to DENR at least 15 days prior to conducting the work.

HISTORICAL RESOURCES REVIEW

Aerial Photograph Review

A review was conducted of available historical aerial photographs from various sources. Photographs from the years 1956, 1966, 1968, 1974, 1982, 1991 and 2008 were reviewed. The following pertinent information about the site and vicinity was obtained from the review. The photo source and scale are also listed. Copies of the photos are attached in Appendix B. The scale and clarity of some photos do not allow a detailed review.

Lincoln County

* 1956 – USDA/NRCS (Scale: 1" = 1320')

The site and adjacent properties appear to primarily be in use for crop production in this photograph. A farm is visible approximately ¼ mile east of the intersection of 298th Street and Hwy 77 (south side of road). Another farm or residence is visible at the intersection of 298th Street and S. 3rd Street (south side of road). Trees are visible within the subject property in two locations around each of aforementioned farms. In this photo, 298th Street curves to the south prior to its intersection with SW 13th Street.

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* 1966 – USGS EROS Data Center (Scale: 1" = 1660')

The subject property appears much as it did in the previous photograph (crop production & residences).

* 1968 – USDA/NRCS (Scale: 1" = 1320')

The subject property appears much as it did in the previous photograph (crop production & residences).

* 1974 – USDA/NRCS (Scale: 1" = 1320')

The subject property appears much as it did in the previous photograph (crop production & residences).

* 1982 – USDA/NRCS (Scale: 1" = 1320')

The majority of the site and adjacent land appears as previously stated (crop production & residences). Two round structures are visible just northeast of the intersection of S. 3rd Street & 298th Street (possible grain storage structures).

* 1991 – USDA/NRCS (Scale: 1" = 660')

The site and immediate vicinity appear as previously seen. Some newer residential structures are visible along S. 3rd Street (approximately ¼ mile north of the subject property).

* 2008 – USDA/NRCS (Scale: 1" = 1320')

New residential development is visible along the north side of S. 3rd Street as it curves into 298th Street. A golf course is visible adjacent to the north of the pipeline route between the intersection of 3rd Street and SW 13th Street. The majority of the route is still in use for crop production.

County Atlases/Maps

The site is within both Clay and Union Counties. The atlas review is separated by county below. Copies of the atlas pages are attached in Appendix B.

Union County

1. Illustrated Historical Atlas of South Dakota, 1904, by E. Frank Peterson

The site is in Section 8 of Prairie Township. There are roads on the section lines in the area. There are two building sites on the south side of 298th Street. This map does not identify land owners. The city limits of Beresford are adjacent to the north.

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2. Standard Atlas of Union County, South Dakota, 1910, by Geo. A. Ogle & Co.

Ownership of the western 2/3rds of the site is listed to Theresa LiMoyes. The eastern 1/3rd of the site is owned by John Dolan (north and south of 298th Street). One structure is depicted directly south of the intersection of S. 3rd Street and 298th Street.

3. Atlas and Farm Directory, Union County, South Dakota, 1917, by The Farmer

The site and vicinity appears as previously seen.

4. Atlas of Clay and Union Counties, South Dakota, 1924, by Anderson Publishing Company

There is one structure depicted adjacent (to the south) of the subject property (as previously noted). Ownership of the western 2/3rds of the subject property is listed to John W. Reedy. The eastern 1/3rd is listed to J. Dolan.

5. Atlas of Clay and Union Counties, South Dakota, 1959-60 by Title Atlas Company

Ownership of the NW ¼ of section 8 is listed to Pauline Reedy. The corporate city limits of Beresford are depicted on the north side of 298th Street. Nellie Dolan is listed as owner of the NE ¼ of section 8. Two residences are depicted on the south side of 298th Street.

6. Atlas: Union County, South Dakota, 1966, by Dakota Atlas Company

Interstate Highway 29 is now shown crossing the site (in the center of Section 1). There is a bridge along 298th Street over I-29. Land to the east is shaded as part of the City of Beresford.

7. Atlas of Clay and Union Counties, South Dakota, 1980 by United States Atlas, Inc.

One residence is depicted south of the subject property on this map. Ownership of the N ½ of Section 8-95-50 is listed to Florence & Robert Dolan.

8. Centennial Atlas of Clay and Union Counties, South Dakota, 1990 by Centennial Atlas Co.

The entire site (south of 298th Street) is shown as owned by Robert Dolan. The subject property which lies north of 298th Street is depicted within the corporate city limits of Beresford. No structures are depicted on this map but residences are signified on the subject property (south side of 298th Street) although the number of residences is not indicated.

9. Atlas of Union County, South Dakota, 1992 by Title Atlas Company

The site and vicinity appear as previously seen.

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10. Union County, South Dakota Directory of Land Owners & Residents, 2006.-07 by County Wide Directory LLC

The site and vicinity appears as previously seen.

Fire Insurance Maps

A review was conducted of available fire insurance maps for Beresford, SD. Sanborn Fire Insurance Maps were available for the following years: 1893, 1889, 1904, 1912, 1917 and 1928. Only the more developed portions of cities or towns are depicted on these maps. The subject property was not depicted on the maps reviewed indicating little or no development in the site vicinity.

Topographic Maps

A review was conducted of available historical topographic maps from various sources. One map was available, and it is attached as Figure 1. The following pertinent information regarding the subject property and vicinity was observed.

- * 1968 - USGS Beresford, South Dakota 7.5 minute Quadrangle

The site appears to be mostly vacant or agricultural land. The proposed pipeline easement is approximately 2,600' long going roughly east-west. The easement crosses a county road directly south of the City of Beresford near S. 3rd Street. The elevation of the site is approximately 1500' on the west end, rising to approximately 1515' on the east end. There are light duty roads on most section lines in the area. The vicinity appears to be mostly vacant or agricultural land, with a few apparent farmsteads. The proposed pipeline route crosses an unnamed intermittent stream approximately 400' east of the intersection of 298th Street and SW 13th Street.

Data Failure

The all appropriate inquiry standard requires that standard historical sources be consulted to develop a history of the previous uses of the site (at five year intervals) and surrounding area. Standard historical sources include aerial photographs, fire insurance maps, property tax files, recorded land title records, local street directories, building department records, zoning/land use records, and other sources. Standard historical sources that are reasonably ascertainable, publicly available, available at reasonable time and cost, and practically reviewable must be reviewed from the present back to the first developed use (which includes agricultural use or placement of fill dirt) or back to 1940, whichever is earlier. Review of standard historical sources may be excluded if they are not reasonably ascertainable or not likely to be sufficiently useful, accurate or complete.

Data failure occurs when all standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed, and yet the objective of the research has not been met.

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Data failure is not uncommon in trying to identify previous uses of property back to 1940 or earlier. If data failure occurs, the report shall document the failure, and if any standard historical resources were excluded, give the reasons for exclusion.

Minor data gaps consisting of a lack of historical information for intervals greater than 5 years were present. Data gaps greater than the required interval ranged from 6 to 17 years. Use prior to and following the data gaps was not significantly different, therefore site use was assumed to be consistent across the gaps. Historical zoning/land use records and building department records were not reviewed. The zoning/land use records were deemed not likely to be useful. Building department records do not exist. Sufficient local street directories or other records were not available to document uses of the site and surrounding area at five years intervals. Please refer to the time line listed on Table 1 for a summary of historical site use.

SITE RECONNAISSANCE

Methodology and Limiting Conditions

Observations were made by viewing the subject property from the fence line or right of way of adjacent roads, and traversing select site areas by auto and on foot.

Hydrogeology

Geology

The surficial geologic unit in the site vicinity is Quaternary Till, Ground Moraine (a heterogeneous mixture of boulders, pebbles, sand, silt and clay; it forms a flat to gently undulating topography (McCormick, 2004). This surficial geologic unit is approximately 90-100' thick in the site vicinity.

There is a poor probability of sand and gravel deposits within 25' of the land surface for this segment of the pipeline. The nearest significant sand deposits appear to be approximately 2 miles east of this pipeline segment (Schulz, 1991).

Below the Quaternary till are other Quaternary deposits, mostly till, with occasional buried outwash. The bedrock beneath this segment of the pipeline is likely part of the Cretaceous Carlisle Shale Formation. The top of the bedrock is approximately 1280' to 1300' AMSL (above mean sea level), (McCormick, 2004).

Groundwater

Groundwater is likely present in the surficial deposits within 10' to 20' of the land surface. The groundwater gradient is often in the direction of the surface topographic gradient, which drops approximately 15' from east to west in the area of this pipeline segment. Many other factors can also affect the groundwater gradient, such as streams, river stage, pumping wells, etc.

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Area Aquifers

These potential aquifer units are known to exist in the route area in Union County:

Brule Creek - This aquifer is in surficial sand and gravel deposits in northern Union County. It is approximately 10'-50' thick in the pipeline route area in Union County (Niehus, 1994).

Niobrara Aquifer - This is a siltstone that may have layers of chalk. It is generally less than 50' thick (Niehus, 1994).

Carlile Aquifer - This is a shale unit approximately 250' thick in the vicinity of the pipeline segment (Niehus, 1994).

Municipal Water Supplies

The municipal water supply of nearby communities or rural water districts is listed below:

-The City of Beresford gets their water from three wells (65-75' deep) (DENR, 2003). The wells are screened in the Brule Creek Aquifer. Formerly, Beresford got water from the Dakota Aquifer (Baker, 1963). The city wells are about three miles east of town (personal communication, Mr. Jerry Zeimetz, 2007).

We are not aware of water source or aquifer protection zones for Union County or the City of Beresford area.

Soils

Three soil types are found on the route for this pipeline segment. They are: Wentworth Silty Clay Loams (2-6% slope) which is found along the western portion of the segment, Worthing Chancellor Silty Clay Loams, found in the west central portion of the segment and Wentworth Silty Clay Loams (0-2% slope) which is found on the eastern portion of the segment (USDA/NRCS, 1978).

Wentworth Silty Clay Loams

The Wentworth series of soils consist of deep, well drained, nearly level to gently sloping, silty soils on uplands. These soils typically form on glacial drift.

Worthing-Chancellor Silty Clay Loams

The Worthing series consists of deep, poorly drained, silty soils that have clayey subsoil. These soils are found in depressions on uplands and generally have formed in alluvium washed from adjacent soils.

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General Site Setting

On October 7, 2009, we performed a reconnaissance visit of the site to make visual observations of existing site conditions and land use practices.

The site consists of cropland, pasture, hay land, vacant land, and rural residential yard areas. There were no buildings observed on-site. A circular concrete slab (likely from a former grain storage structure) was observed just east of the intersection of S. 3rd Street and 298th Street. There were little to no improvements on-site except for some gravel driveways and paved highways. There were barbed wire fences along many parcel boundaries. There were also some underground utility lines.

There were a few apparent minor observations of on-site wastes:

- minor, wind-blown debris was observed in Section 8-95-50.
- one tire, and one piece of lumber were observed in Section NW ¼ 8-95-50.

Evidence of sumps, cisterns, water wells, distressed vegetation, or surface stains was not observed. Note that tall grass, cattails, trees, and other vegetation somewhat obscured our view of parts of the site.

The subject property is roughly linear shaped. This pipeline segment is approximately 2,600' long by up to 100' wide, trending east-west. This is an approximate area of 5.97 acres. Photographs of the site are attached in Appendix A.

Hazardous or Potentially Hazardous Materials

Hazardous or potentially hazardous materials were not observed or suspected to exist on-site.

Agricultural or lawn chemicals such as herbicides, pesticides, insecticides, fertilizers, etc., have likely been applied to the site in the past. If used or handled on-site, there is potential for uncontrolled releases to have occurred. We presume there is no concern regarding ag chemical usage at crop/lawn application rates. Evidence of uncontrolled ag chemical releases (i.e. unusual areas devoid of vegetation) was not observed.

PCB Review

Electrical transformers observed on or adjacent to the site (not across a road) are listed below. Apparent electric cable boxes are excluded. Unless otherwise noted, transformers were pole mounted, and without observed leakage or markings indicating PCB content.

- One transformer approximately 800' east of the intersection of SW 13th Street and 298th Street was observed. Markings indicating PCB content were not observed on this transformer (Section 8-95-50). Visible evidence of leaks, spills or other uncontrolled releases of transformer oil were not observed with respect to this transformer.

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Water Supply Well

Water supply wells were not observed on-site. Although it is possible a well may exist at or near current or former residences and farmsteads, typical surface features of wells were not observed on-site.

If a water well is later discovered on-site, it would probably be considered abandoned. State well construction standards (ARSD 74:02:04:69) would require that abandoned wells be plugged. Well abandonment may be performed by the property owner or by a licensed well driller. The cost of well plugging would be dependent upon the depth and diameter of the well, and other factors.

Underground/Aboveground Storage Tank Review

Evidence of underground storage tanks (USTs), such as fill/vent pipes or dispenser islands, was not observed. Aboveground storage tanks (ASTs) were not observed on-site. There is no knowledge of USTs or ASTs being previously located on-site.

INTERVIEWS

The objective of interviews is to obtain information indicating possible recognized environmental conditions of the site. An interview of the owner/key site manager, and occupant(s) if different than manager, and at least one state and/or local government official are required. In the case of abandoned properties where there is evidence of unauthorized use or uncontrolled access, interviews of one or more neighboring owners or occupants are required. The site was not an abandoned property.

Owners

Level 1 Contaminant Survey Checklists were sent to the owners of the parcels of the subject property. Of 3 checklists sent, 2 were returned to us. An example letter sent to the property owners, and the returned checklists are attached in Appendix E.

There were no positive or unknown responses on the returned checklists. Other notable items are listed below (listed by parcel #):

-#13 The owner noted on the survey that they have their own water line which follows the fence-line (exact location not described).

Local Government Officials

Union County Emergency Management - Director Mr. Raymond Roggow was interviewed on October 8, 2009. Mr. Roggow was not aware of any chemical or fuel spills or releases along this section of the proposed pipeline. To his knowledge there has never been significant development in the site vicinity (other than farm residences).

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DATA GAPS

A data gap is defined as a lack of or inability to obtain the required information for this report despite a good faith effort, such as the inability to perform the site reconnaissance, interviews, etc. A data gap may not always be considered significant, and data failure of standard historical source review may or may not be considered a data gap. This report must identify and comment on significant data gaps that affect the ability to identify recognized environmental conditions, and identify sources of information that were consulted to address the data gaps (if any).

Significant data gaps were not noted for this report. About 5 minor data gaps consisting of a lack of historical information for intervals greater than 5 years were present. Unspecified use spanned 6 to 17 years and previous use was not significantly changed from following use, suggesting low potential for an alternate site use in the gap.

In our opinion, there were no additional interviews, records, or data to be reviewed that would be considered likely to be useful within the cost and time frame of this work.

FINDINGS

The following summarizes our professional opinions regarding the Phase I Environmental Site Assessment performed on the subject property, based on the information presented in the previous sections of this report.

- * The site consists of cropland, pasture, vacant land, and rural residential yard areas. There were no buildings observed on-site. However, there were little to no improvements on-site except for some gravel driveways, paved highways, barbed wire fences, and utility lines. One circular concrete building foundation slab was observed just east of the intersection of 298th Street and S. 3rd Street (on the north side of 298th Street).
- * There were a few apparent minor observations of on-site wastes:
 - one tire, and one piece of lumber were observed in Section 8-95-50.
- * Evidence of sumps, cisterns, water wells, distressed vegetation, or surface stains was not observed.
- * Hazardous or potentially hazardous materials were not observed or suspected to exist on-site.
- * Electrical transformers observed on or adjacent to the site are listed below. Apparent electric cable boxes are excluded.

-One pad mounted transformer approximately 800' east of the intersection of SW 13th Street and 298th Street was observed. Markings indicating PCB content were not observed on this transformer (Section 8-95-50). Visible evidence of leaks, spills or other uncontrolled releases of transformer oil were not observed with respect to this transformer

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- * Water supply wells were not observed on-site. Although it is possible a well may exist at or near current or former residences and farmsteads, typical surface features of wells were not observed on-site.
- * Evidence of underground storage tanks (USTs) was not observed. Aboveground storage tanks (ASTs) were not observed on-site. There is no knowledge of USTs or ASTs being previously located on-site.
- * Historical resources did not indicate prior non-agricultural or non-residential land use. An owner questionnaire identified a water supply line which follows a fence-line at the Bob & Angela Dolan residence (47152 298th Street).
- * The site is not on the regulatory agency lists reviewed. There are few nearby facilities that occur on regulatory lists. The off-site listings are not considered significant with respect to the site.

OPINION

The few farmsteads and residences adjacent to or near the site have several environmental risks. One is ag chemical and fertilizer storage and use. Animal wastes may be generated, stored, and disposed of. There may be current or former disposal pits for household and farm wastes. There may be current or former water supply wells, storage tanks (ASTs/USTs), household septic fields and lines, manure pits, agricultural drainage tiles, etc. Each of these items, if present, could: result in increased nutrients; contaminate soil, groundwater, or surface water; or provide a transport mechanism to them.

Dumps or landfills were not identified along the proposed pipeline easement, there appears to be low potential for buried wastes. However, if encountered, wastes may require special disposal, and may be a release source.

Should substance releases be encountered or detected, notification to the US Environmental Protection Agency or the SD Department of Environment and Natural Resources may be necessary. If the substance release is a motor fuel or fuel oil, a responsible party or impacted third party may be eligible for reimbursement of assessment and cleanup costs from the SD Petroleum Release Compensation Fund. The PRCF has a \$10,000 deductible (except for third party liability cases), with coverage up to \$1,000,000 for eligible expenses related to releases of motor fuels and fuel oil. Expenses related to hydraulic oil, used oil, and other substances (i.e. cutting oils, solvents) are not eligible for reimbursement. **Transmission pipeline releases are reportedly excluded from PRCF coverage.** Releases from vehicles may be covered if certain criteria are met. If a release originates off-site, there is also some coverage of expenses for an impacted third party. However, coverage is secured through the responsible party.

Although not suspected, if an abandoned petroleum UST is discovered, it could be removed at no expense to the property owner under a current DENR program. Abandoned petroleum USTs are eligible for the DENR Tank Yank Program unless they are at a commercially operated motor fuel

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station operated on or after April 1, 1988. USTs storing motor fuel, heating oil, motor oil, waste oil, etc., are eligible. DENR hires private contractors and consultants to conduct the work. UST contents are removed. Soil samples are collected at the time of UST removal. Contaminated backfill soils, if present, are removed. Replacement soil is minimally compacted. If there is pavement over the UST, it would not be replaced. The state also pays for "any additional cleanup that is needed". Currently, there is no known ending date for this program.

If abandoned water supply wells are encountered, they may need to be plugged. The cost of sealing a well with cement grout would be dependent upon the depth and diameter of the well. The minimum cost would be a few hundred dollars, with higher expenses for deep and large diameter wells.

If over one acre of land will be disturbed by earthwork (i.e. pipeline construction or other earthwork), a notice of intent to be covered under the state's general permit for storm water discharges in association with construction activities should be submitted to DENR at least 15 days prior to conducting work. As part of the permit, a pollution prevention plan must be developed and implemented. Likewise, if dewatering of trenches is conducted, the appropriate notice of intent to be covered under the state's general permit should be submitted to DENR.

CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-2005 of the referenced site. This assessment has not revealed evidence of recognized environmental conditions in connection with the property.

DEVIATIONS

Any exceptions to, or deletions from, this practice are described in the "Scope of Services" section of this report.

ADDITIONAL SERVICES

Asbestos Review

The subject property was reviewed for obvious suspected asbestos containing building materials. As there were no buildings on-site, suspect asbestos containing materials were not observed.

An inspection and sampling of suspect asbestos containing building materials is usually required by EPA (NESHAPs rules in 40 CFR 61) and SD Department of Environment and Natural Resources (DENR) rules prior to construction, demolition, or renovation activities involving the materials. Additionally, a notification form must be submitted to DENR at least 10 working days prior to demolition (including those where no asbestos is present), and prior to disturbing or removing certain quantities of asbestos. Asbestos materials may require special disposal.

Most landfill operators/owners will accept building debris without segregating non-friable (non-

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dust producing under hand pressure) suspect asbestos containing materials. The landfill accepting the waste may also have requirements regarding packaging, transport, and disposal of the material.

These factors should be considered when selecting a landfill for the demolition debris. During building demolition, we recommend care be taken to lessen the possibility that the non-friable materials would become friable. Possible precautions include: demolition equipment should not traverse or pulverize areas of floor tile, use water to keep material wet during removal, keeping debris sections relatively intact, and minimizing breakage, etc.

Federal OSHA rules may apply to contractors and employees working with asbestos containing materials. Notification of the existence of suspected and confirmed asbestos building materials is required. Thermal system insulations, spray or trowelled surfacing materials, and asphalt or vinyl flooring must be presumed to contain asbestos in buildings constructed before 1980 unless tested otherwise. For employees such as custodial and maintenance workers, an asbestos awareness course is required in buildings with confirmed or presumed asbestos containing materials.

Lead Review

There are little to no painted surfaces on-site. If present, paint may contain lead. Most definitions of lead-based paint define it as paint containing 0.5% or more lead. Beginning in 1955, voluntary industry standards were 1% or less lead in residential interior paint. In 1971, a federal law prohibited the use of paint with over 1% lead in federal government residences. In 1973, federal law lowered the allowable amount to 0.5%. In 1977, federal law lowered the allowable amount of lead in residential interior paint to 0.06%. Contractors should comply with OSHA lead exposure rules during work involving potential lead-based paint (29 CFR 1926.62).

Wetlands

Map

A review was conducted of available National Wetlands Inventory maps prepared by the US Department of the Interior, Fish & Wildlife Service. The Beresford, SD Quadrangle map was published in 1990, based on aerial photos from 1983. A copy of the map is attached in Appendix F. Please refer to the actual map for the type and number of wetlands. Below are observations from the maps, arranged by section of the proposed pipeline easement. Wetlands that would appear to be low road/rail ditches, and therefore may be off-site are indicated by parenthesis (x).

Beresford Quadrangle

- 8-95-50 - 1 areas (0)
- 5-95-50 - 0 areas (1)

Therefore, according to the US Fish and Wildlife Service maps, excluding nearby apparent road/rail ditches, it appears that there may be one wetland area within the proposed pipeline easement and as

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many as four wetland areas adjacent.

Observations

Areas of standing water were not observed during out site visit. Water may be present in road ditches and other low areas after rain or snow melt.

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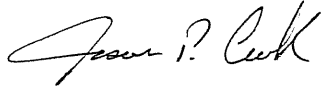
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US Geological Survey, Beresford, South Dakota Quadrangle, 7.5 minute series map, 1968.

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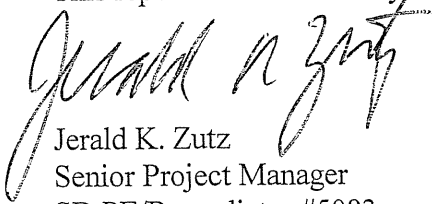
SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

The conclusions and recommendations contained in this report present our professional opinions. These opinions were arrived in accordance with currently accepted hydrogeological and engineering practices at this time and location. Other than this, no warranty is implied or intended.



Jason P. Cook, CIH
Senior Project Manager
ABIH Cert# 9376CP

This report was reviewed by:



Jerald K. Zutz
Senior Project Manager
SD PE/Remediator #5083

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Jason P. Cook - Project Manager/Certified Industrial Hygienist: Jason is a senior project manager on assessment projects. He holds a degree in Chemistry from the South Dakota School of Mines & Technology. Jason has completed over 200 Phase I Environmental Site Assessments throughout Iowa, South Dakota and Minnesota. Jason is an ABIH Certified Industrial Hygienist with 17 years of experience. Jason is an AHERA certified asbestos building inspector in South Dakota. Jason also has completed the NIOSH 582 Course for PCM microscopy and is a member of the AIHA Academy of Industrial Hygiene.

Jason is the Environmental Professional for this report, and has completed the site reconnaissance and interviews within the report.

Jerald K. Zutz-Senior Project Engineer/Manager: Jerry is a project engineer/manager on assessment and remediation projects. He holds a degree in geologic engineering from South Dakota School of Mines and Technology. Jerry has completed over 600 Phase I Environmental Site Assessments throughout South Dakota, Iowa, Minnesota and Nebraska. Jerry is a licensed asbestos building inspector in South Dakota and has received training as a lead-based paint inspector/risk assessor under the EPA model curriculum. He is a Registered Professional Engineer in South Dakota and a Certified Petroleum Release Remediator in South Dakota with 25 years of experience.

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TABLE 1- SITE USE TIME LINE		
Year	Historical Source	Site Use
1904	County Atlas	There are two building sites in the site vicinity (south side of 298 th St)
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1910	County Atlas	Ownership of the western 2/3 ^{rds} of the subject property is listed to: Theresa LiMoyes. The eastern 1/3 rd is listed to: John Dolan. One structure is depicted in the site vicinity (likely farm residence).
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1917	County Atlas	The site and vicinity appear as previously stated.
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1924	County Atlas	One structure is depicted in the site vicinity. Ownership of the subject property is listed to: John Reedy (W 2/3 rd) and John Dolan (E 1/3 rd)
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1956	Aerial Photo	Majority of site in use for crop production. Two farm residences are adjacent to the south of the pipeline route.
1959-60	County Atlas	Ownership of NW ¼ section 8 is listed to: Pauline Reedy. Beresford City limits are visible on north side of 298 th Street. Nellie Dolan is listed as owner of NE ¼ Section 8. Two structures are depicted on the south side of 298 th St.
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1966	Aerial Photo	The site appears as it did in the previous photograph. (Primarily crop production & rural residences).
1966	County Atlas	The site appears as previously stated.
1968	Aerial Photo	The site appears as it did in the previous photograph. (Primarily crop production & rural residences).
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1974	Aerial Photo	The site appears as it did in the previous photograph. (Primarily crop production & rural residences).
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1980	County Atlas	One residence is depicted S. of 298 th Street. Ownership of the N ½ of Section 8-95-50 is listed to: Florence & Robert Dolan.
1982	Aerial Photo	Two round structures are visible east of the intersection of 298 th St. & S. 3 rd St. (probable grain storage structures).
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1990	County Atlas	The entire site (south of 298 th Street) is owned by: Robert Dolan. The subject property north of 298 th St. is within the city limits of Beresford.
1991	Aerial Photo	The site appears as previously described. Several residences are visible along S. 3 rd Street.
1992	County Atlas	The site and vicinity appear as previously stated.
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
2006-07	County Atlas	The site and vicinity appear as previously stated.
2008	Aerial Photo	New residential development is visible on the north side of 298 th Street (east of golf course). Majority of site still in use for crop production & rural residences.

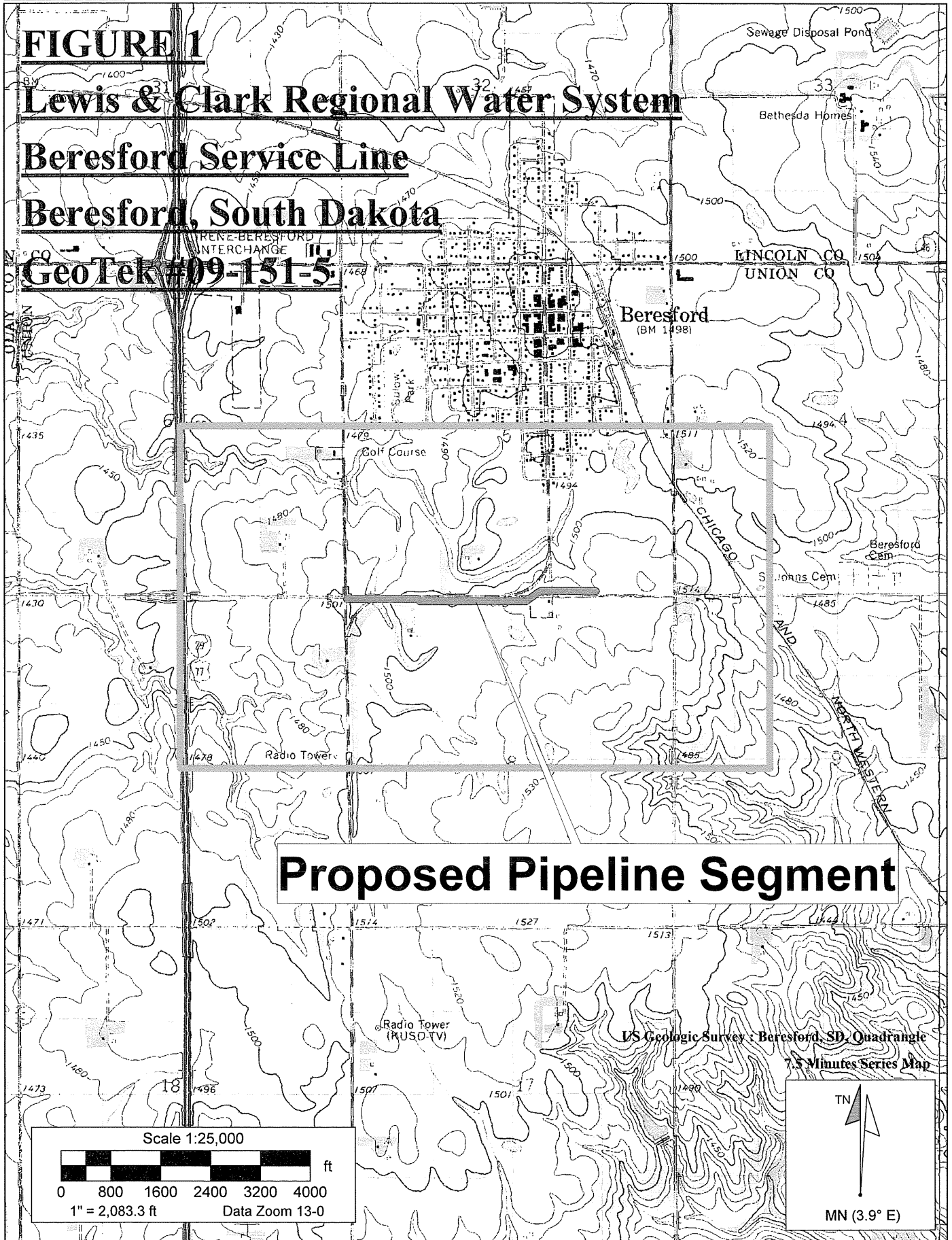
FIGURE 1

Lewis & Clark Regional Water System

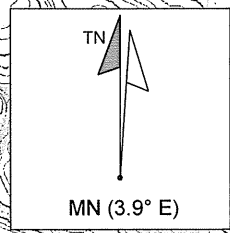
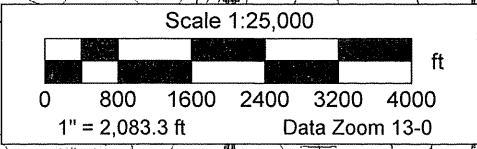
Beresford Service Line

Beresford, South Dakota

GeoTek #09-151-5



Proposed Pipeline Segment



US Geologic Survey - Beresford, SD, Quadrangle
7.5 Minutes Series Map