Phase 1 Environmental Site Assessment
Lewis & Clark Regional Water System, Inc.
South Dakota Treated Water Pipeline – Segment 12
Union County, South Dakota

GeoTek#10-964

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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 August 16 to November 5, 2010. 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.

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 July 1, 2010 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.

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 from a point near the southeast corporate city limits of Beresford, SD and primarily follows a west to east path along 298th Street to a point near the South Dakota – Iowa border.

This pipeline segment is approximately 15.5 miles long. The proposed total right of way width of both the permanent and temporary construction easement is approximately 100'.

This segment covers approximately 45 parcels. The approximate legal description and owners of the parcels are on listed in Appendix E.

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 and farmyards.

Description of Improvements

Improvements on the site are:

-paved highways (298th Street, SD Hwy 11)

-multiple gravel driveways

-livestock fencing (barbed wire) along many property boundaries.

-gas pipeline (approx. 3.3 miles east of west end of segment)

-concrete vessel (possible cistern) (SE ¼ Sec 6-T95N-R49W)

Current Uses of Adjoining Properties

The vicinity consists of rural agricultural land (cropland, pasture, hay land, residences, farmsteads). Adjacent properties are primarily used for crop production, residences and farms.

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 large steel storage tank (former UST) was observed approximately 4 miles east of the west end of the segment at 47571 298th Street. This tank was sitting on the ground surface and did not appear to currently be in use.

2. A small tank truck (unknown tank contents) and other various equipment were observed approximately 0.6 miles east of the west end of the segment.

3. A cemetery was observed approximately 0.8 miles east of the west end of the segment.

4. A gas pipeline crosses the segment approximately 3.3 miles east of the west segment end.

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.

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

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 #09-151, dated November 5, 2009). 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.

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.

1. Beresford TBS, 472nd Avenue (address unknown): SQG

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.

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 #89.197 Beresford School District, 7th & West Maple, Beresford.
2. DENR #90.547 Pam Fuels, Railroad & Birch, Beresford.
3. DENR #92.331 Diamond Vogel drum leak, Hwy. 11, Alcester.
4. DENR #92.350 Dead Sheep (dry creek bed – location not listed), Union County.
5. DENR #93.149 Bi-State Fertilizer transport event, Virginia Township.
6. DENR #93.211 Williams Pipeline Company, near Iowa border (Hawarden)(NE ¼ Sec 15-T95N-R48W).
7. DENR #98.152 Beresford School District, 301 W. Maple, Beresford.
8. DENR #2001.519 ATP Site – Sundstrom Gas Station, 3rd & Willow, Beresford
9. DENR #2002.241 Residential Property, 305 S. 1st Street, Beresford.
10. DENR #2003.166 Union County Gravel Pit, near Hudson.
11. DENR #2004.007 Mid-America Energy (mercury leak), 405 S. 2nd Street, Beresford

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)
2. Craig Akland, Rt. 1 Box 141, Alcester: 1 UST (current)
3. Louis Vander Laan Jr., RR3 Box 35, 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

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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.

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.

1. Bill Boyer (C&D – construction & demolition debris) Site, Sec 9-T95N-R48W.

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, 1968, 1974, 1996 and 2002 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 (except for 2002 photos). The scale and clarity of some photos do not allow a detailed review.

Union 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 cemetery is visible approximately ¾ mile east of Beresford on 298th St. Several intermittent streams cross the proposed pipeline route. There are eight (8) farm yards on or very near the proposed pipeline route on this map. A rail road line crosses the site approximately ¾ mile west of the east end of the segment.

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

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

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

The subject property appears much as it did in the previous photograph (crop production & rural residences/farms). These photos are slightly obscured with soil information.

* 1996 – USGS (Scale: approx 2.4" = 1 mile)

The majority of the site and adjacent land appears as previously stated (crop production & residences). These photos are small scale.

* 2002 - Banner Associates (Scale: 1" = 100')

These photos were reportedly taken in November 2002. The site and vicinity appear essentially as previously seen.

County Atlases/Maps

The site is within Union County. The site lies within sections 1-4 of Prairie Township, sections 1-6 of Alcester Township and sections 1-6 of Virginia Township. Copies of the atlas pages are attached in Appendix B.

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

Prairie Township

A cemetery is depicted adjacent to the site within section 4. Two rural residences (farms) are depicted on or near the site in the south ½ of section 3.

Alcester Township

Rural residences are depicted on or near the site in the following locations: SE ¼ Sec 6, SE ¼ Sec 4, SW ¼ Sec 3, SE and SW ¼'s Sec 2 and SW ¼ Sec 1. A creek or intermittent stream is depicted crossing the site in the SW ¼ of Sec 3.

Virginia Township

Rural residences are depicted on or near the site in the following locations: SW ¼ Sec 6, SE ¼ Sec 5 and SE ¼ Sec 2.

2. Atlas of Clay and Union County, South Dakota, 1924, by Anderson Publishing Co.

Prairie Township

A cemetery is depicted adjacent to the site within section 4. A railroad track is depicted crossing the site in the SW ¼ of Sec 4. A creek/stream is depicted crossing the site in the SE ¼ of Sec 2.

Alcester Township

A creek or intermittent stream is depicted crossing the site in the SW ¼ of Sec 3.

Virginia Township

Creeks or streams are depicted crossing the site in the SW ¼ of Sec 6 and the SE ¼ of Sec 4.

3. Atlas of Clay and Union Counties, South Dakota, 1960, by Title Atlas Company

Prairie Township

A cemetery is depicted adjacent to the site within section 4. A railroad track is depicted crossing the site in the SW ¼ of Sec 4. A creek/stream is depicted crossing the site in the SE ¼ of Sec 2.

Alcester Township

Creaks or streams are depicted crossing the site in the following locations: SW ¼ Sec 6, SE ¼ Sec 4 and SE ¼ Sec 2.

Virginia Township

A Creek or stream is depicted crossing the site in the SW ¼ of Sec 6 and a railroad track is depicted crossing the site in the SW ¼ of Sec 2.

4. Atlas of Union County, South Dakota, 1966, by Dakota Atlas Company

Prairie Township

A cemetery is depicted adjacent to the site within section 4. A railroad track is depicted crossing the site in the SW ¼ of Sec 4. A creek/stream is depicted crossing the site in the SE ¼ of Sec 2.

Alcester Township

Creaks or streams are depicted crossing the site in the following locations: SW ¼ Sec 6, SE ¼ Sec 4 and SE ¼ Sec 2.

Virginia Township

A creek or stream is depicted crossing the site in the SW ¼ of Sec 6 and a railroad track is depicted crossing the site in the SW ¼ of Sec 2. The Big Sioux River is depicted adjacent to the east of the township.

5. Atlas of Union County, South Dakota, 1990, by Centennial Atlas Company

Prairie Township

A cemetery is depicted adjacent to the site within section 4. A railroad track is depicted crossing the site in the SW ¼ of Sec 4. Creeks or streams are depicted crossing the site in the following locations: SW ¼ Sec 3, SW ¼ Sec 2 and SE ¼ Sec 2.

Alcester (West) Township

Creaks or streams are depicted crossing the site in the following locations: SW ¼ Sec 6, SE ¼ Sec 2.

Alcester (East) Township

A creek or stream is depicted crossing the site in the SE ¼ of Sec 4 and the SE ¼ of Sec 3 and a railroad track is depicted crossing the site in the SW ¼ of Sec 2. The Big Sioux River is depicted adjacent to the east of the township (South Dakota/Iowa border).

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, 1928 and 1943. 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.

National Pipeline Mapping System

This publically available database of pipelines was searched on November 3, 2010. There is a natural gas pipeline (Northern Natural Gas) crossing the proposed pipeline route approx. 3.3 miles east of west end of segment (SW ¼ Sec1-T95N-R50W). Two pipelines (Nu-Start Natural Gas & Mid American Pipeline) cross the proposed pipeline route in the SW ¼ of Sec 3-T95N-R48W. A copy of the map is attached in Appendix B.

Topographic Maps

A review was conducted of available historical topographic maps from various sources. Two maps were available. A combined topographic map of the site is attached (Figure 1). The following pertinent information regarding the subject property and vicinity was observed.

* 1968 - USGS Alcester & Alcester SE, South Dakota 7.5 minute Quadrangles

The site appears to be mostly vacant or agricultural land. The proposed pipeline easement is approximately 15.5 miles long going roughly east-west. The elevation of the site is approximately 1522' on the west end, dropping to approximately 1200' on the east end (near the Big Sioux River). 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. A small reservoir is depicted approximately 9 miles east of the west end of the segment (adjacent to the south of the proposed pipeline route). Multiple unnamed intermittent streams are depicted crossing the proposed pipeline route. East Brule Creek is shown crossing the site approximately 7.5 miles east of the west end of the segment. The Beresford Cemetery is depicted approximately 0.75 miles east of the west end of the pipeline segment.

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.

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 32 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 and/or available. The zoning/land use records were deemed not likely

to be useful or are not known to exist. 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 primarily Loess, consisting of eolian deposits of mainly silt sized grains which forms steep slopes over pre-Illinoian till (McCormick, 2004). Alluvium deposits are also likely in stream beds throughout the pipeline route. These surficial geologic units vary from approximately 225' thick on the west end of the pipeline segment to 40' thick on the east end.

Below the Loess and Alluvial deposits are other Quaternary deposits, mostly till, with occasional buried outwash. The bedrock beneath this segment of the pipeline is likely part of the Cretaceous Carlile Shale Formation. The top of the bedrock is approximately 1160' to 1295' 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 varies across the site 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.

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 (if present) - 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

The three most common soil types found on the route for this pipeline segment are: Wentworth Silty Clay Loams (2-6% slope) which is found along the western portion of the segment, Moody Silty Clay Loams, found in the central portion of the segment and Lamo 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.

Moody Silty Clay Loams

The Moody series consists of deep, well drained, silty soils. These soils are found in uplands and generally form in loess.

Lamo Silty Clay Loams

The Lamo series consist of deep, somewhat poorly drained, level silty soils found on bottom lands. These soils formed in alluvium.

General Site Setting

On August 25, 2010, 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. A circular concrete vessel (possible well housing) was observed approximately 5.2 miles east of the west end of the segment (NE ¼ Sec 6-T95N-R49W). 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. The proposed pipeline segment crosses the Northern Natural Gas Pipeline in the SW ¼ Sec 1-T95N-R50W.

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There was one apparent minor observation of on-site wastes:

-one (apparently unused) underground fuel storage tank was observed sitting on the ground surface on or near the pipeline right-of-way in the NE ¼ Sec 12-T95N-R50W.

Evidence of sumps, 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 in shape. This pipeline segment is approximately 15 miles long by up to 100' wide, trending east-west. This is an approximate area of 182 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 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 pad mounted transformer was observed at 47374 298th Street. Markings indicating low or no PCB content were observed. Visible evidence of leaks, spills or other uncontrolled releases of transformer oil were not observed with respect to this transformer.

-One pad mounted transformer was observed near the intersection of 474th Avenue & 298th Street. Markings indicating PCB content were not observed. Visible evidence of leaks, spills or other uncontrolled releases of transformer oil were not observed with respect to this transformer.

-A pole mounted transformer was observed in the SW ¼ Sec 5-T95N-R48W. Markings indicating PCB content were not observed. Visible evidence of leaks, spills or other uncontrolled releases of transformer oil were not observed with respect to this transformer.

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. A possible well housing or cistern was observed within the NE ¼ Sec 6-T95N-R49W.

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.

A South Dakota Geologic Survey monitoring well is located near the east end of the pipeline segment (off-site) within the SE ¼ Sec 2-T95N-R48W.

Underground/Aboveground Storage Tank Review

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

-One (apparently unused) underground fuel storage tank was observed sitting on the land surface on or near the pipeline right-of-way in the NE ¼ Sec 12-T95N-R50W.

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 45 checklists sent, 27 were returned to us. An example letter sent to the property owners, and the returned checklists are attached in Appendix E.

There were a few positive or unknown responses on the returned checklists. Notable items are listed below (listed by parcel #):

-#19 The owner noted on the survey that there is drain tile on the proposed pipeline route north of a grove of trees. They also noted that broken pottery shards were found on or near the pipeline route.

-#26-1 The owner indicated a positive response to question #20 (indicating the presence of a transformer, capacitor or any hydraulic equipment which there are any records indicating the presence of PCB's).

Local Government Officials

Union County Emergency Management - Director Mr. Raymond Roggow was interviewed on November 4, 2010. 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).

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 32 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 structure was observed on or near the site in the SE ¼ Sec 6-T95N-R49W.

* There was one apparent minor observations of on-site wastes:

  -One aboveground fuel storage tank (apparently unused) was observed in NE ¼ Sec 12-T95N-R50W.

* A circular concrete structure (possible cistern) was observed in the SE ¼ Sec 6-T95N-R49W.

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

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* Electrical transformers observed on or adjacent to the site are listed below.

-One pad mounted transformer was observed at 47374 298th Street. Markings indicating low or no PCB content were observed. Visible evidence of leaks, spills or other uncontrolled releases of transformer oil were not observed with respect to this transformer.

-One pad mounted transformer was observed near the intersection of 474th Avenue. Markings indicating PCB content were not observed. Visible evidence of leaks, spills or other uncontrolled releases of transformer oil were not observed with respect to this transformer.

-A pole mounted transformer was observed in the SW ¼ Sec 5-T95N-R48W. Markings indicating PCB content were not observed. Visible evidence of leaks, spills or other uncontrolled releases of transformer oil were not observed with respect to this transformer.

* 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. A South Dakota Geologic Survey monitoring well was observed adjacent to the site in the SE ¼ Sec 2-T95N-R48W. A circular concrete structure (possible cistern) was observed in the SE ¼ Sec 6-T95N-R49W (a well may be associated with this structure).

* One underground fuel storage tank (apparently unused and sitting on the land surface) was observed in NE ¼ Sec 12-T95N-R50W. Evidence of underground storage tanks (USTs) was not observed. 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. Owner interviews (questionnaires) did not provide responses which indicate likely significant environmental issues.

* 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.

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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 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.

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. The following is a list of wetland locations on or very near the proposed pipeline route:

SE ¼ Sec 2-T95N-R50W
SW ¼ Sec 5-T95N-R49W
SW ¼ Sec 4-T95N-R50W
SE ¼ Sec 4-T95N-R49W
SE ¼ Sec 2-T95N-R49W
SE ¼ Sec 1-T95N-R49W
SW ¼ Sec 6-T95N-R48W
SE ¼ Sec 4-T95N-R48W
SE ¼ Sec 3-T95N-R48W

Observations

Several creeks/streams were observed crossing the proposed pipeline route during our site visit. Water may be present in road ditches and other low areas after rain or snow melt.

REFERENCES

Jarrett, Martin J., Aggregate Resources in Union County, South Dakota, SD Geological Survey, 1988.

McCormick, Kelli A., and Hammond, Richard H., Geology of Lincoln and Union Counties, South Dakota, SD Geological Survey Bulletin 39, 2004.

Niehus, Colin A., Major Aquifers in Lincoln and Union Counties, South Dakota, SD Geological Survey Information Pamphlet 49, 1997.

Niehus, Colin A., Water Resources of Lincoln and Union Counties, South Dakota, US Geological Survey Water-Resources Investigations Report 93-4195, 1994.

Sanborn Map Company, City of Beresford, South Dakota, 1893, 1898, 1904, 1912, 1917 and 1928.

Soil Survey of Union County, South Dakota, USDA/NRCS, 1978.

SD Department of Environment and Natural Resources, Environmental Events Database, August 18, 2010.

SD Department of Environment and Natural Resources, Permitted and Closed Solid Waste Facilities, January 14, 2010.

SD Department of Environment and Natural Resources, Public Water System Data Handbook, February 4, 2009.

SD Department of Environment and Natural Resources, Registered ASTs and USTs, April 9, 2010.

McCormick, Kelli & Hammond Richard H., Geology of Lincoln & Union Counties, South Dakota, SD Geological Survey, 2004.

US Environmental Protection Agency (EPA), Archive CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System), August 18, 2010.

US EPA, Brownfields Properties List, August 18, 2010.

US EPA, CERCLIS list and NPL (National Priorities List), October 21, 2010.

US EPA, Emergency Response Notification System list, August 17, 2010.

US EPA, Institutional Controls/Engineering Controls List, August 8, 2009.

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US EPA, RCRIS Facility List, August 16, 2010.

US Department of the Interior, Fish & Wildlife Service, National Wetlands Inventory, Alcester, Alcester SE & Hawarden, South Dakota/Iowa Quadrangle, 7.5 minute series maps, 1990.

US Geological Survey, Beresford, Alcester, Alcester SE South Dakota Quadrangle, 7.5 minute series maps, 1968.

US Geological Survey, Hawarden, Iowa 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 18 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.

TABLE 1- SITE USE TIME LINE		
Year	Historical Source	Site Use
1910	County Atlas	Several residences are depicted along the proposed pipeline route. A cemetery is depicted southeast of Beresford.
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1924	County Atlas	RR tracks are depicted crossing the SW ¼ of Sec 4 Prairie Township.
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1956	Aerial Photo	The majority of the site is in use for crop production. Several residences are visible along the pipeline route. Several streams/creeks cross the route.
1960	County Atlas	Several residences are depicted along the proposed pipeline route. A cemetery is depicted southeast of Beresford. Several small creeks/streams cross the proposed pipeline route.
Data gap greater than 5 years. Significant change in use from previous and following years not suspected.		
1966	County Atlas	The site appears as previously described.
1968	Aerial Photo	The site appears to be in use for crop production and rural residences.
1968	Topographic Map	The site appears to be vacant of structures and likely in use for agricultural purposes. Several creaks/streams cross the site. A small reservoir is depicted approximately 9 miles east of the west end of the proposed pipeline segment.
1974	Aerial Photo	The site appears much as it did in the previous photo: cropland & rural residences.
1996	Aerial Photo	The site appears much as it did in the previous photo: cropland & rural residences.