

PHASE I ARCHAEOLOGICAL SURVEY
OF THE
GREY CLOUD ISLAND SLOUGH
RESTORATION PROJECT

WASHINGTON COUNTY, MINNESOTA

Report Prepared for:

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1.0 EXECUTIVE SUMMARY

The South Washington County Watershed District (SWWD) plans to restore the ecological functions of the Grey Cloud Island Slough meander by modifying the existing road embankment of County Road 75 (Grey Cloud Island Drive South). The Grey Cloud Slough Restoration Project (Project) also proposes to replace the existing culvert in order to restore water flow into the Grey Cloud Island Slough meander (Exhibit 1).

SWWD formed a Technical Advisory Committee (TAC) in April of 2011. The TAC is comprised of representatives from the US Army Corps of Engineers (Corps), the National Park Service (NPS), U.S. Fish & Wildlife Service (FWS), the Minnesota Department of Natural Resources (DNR), Grey Cloud Island Township, Washington County, and the SWWD.

SWWD retained Houston Engineering Inc. to complete a Project feasibility study. To satisfy concerns about the Projects potential effects to cultural resources, Houston Engineering Inc. contracted Trefoil Cultural and Environmental to perform a Phase I archaeological survey of the Project. The survey was conducted in April of 2016.

The archaeological survey results were negative.

A finding of No Properties Affected is recommended.

Based on the survey results, no additional archaeological survey or evaluation is recommended for the Project with the following qualifications:

- 1) Intensive testing was performed only within the project boundaries as defined in this report. If the APE is altered beyond those boundaries, additional testing may be required.
- 2) Standard survey techniques cannot always detect buried features (e.g. pits, graves). If archaeological materials are discovered during construction, the immediate discovery area should be avoided until the significance of the find can be assessed.
- 3) If human remains or a suspected burial area is encountered during project operations, activity in the immediate area must cease. The Office of the State Archaeologist and the Washington County Sheriff's office must be contacted for further assistance. The Minnesota's Private Cemeteries Act (307.08) prohibits the intentional disturbance of human burials.



Richard Rothaus PhD.

04/12/2016

Principal Investigator

Date

2.0 INTRODUCTION

The South Washington County Watershed District plans to restore the ecological functions of the Grey Cloud Island Slough meander by modifying the existing road embankment of County Road 75 (Grey Cloud Island Drive South). The Grey Cloud Slough Restoration Project (Project) also proposes to replace the existing culvert in order to restore water flow into the Grey Cloud Island Slough meander (Exhibit 1). The Project is located within Section 24 of T27N, R22W, near St. Paul Park, Washington County, Minnesota.

Houston Engineering Inc., retained by SWWD, contracted Trefoil Cultural and Environmental to perform a Phase I archaeological survey of the Project. The survey was conducted in April of 2016. The purpose of the survey is to identify all historic properties within the undertaking's Area of Potential Effect (APE).

3.0 PROJECT INFORMATION

3.1 *Area of Potential Effect (APE) and Survey Boundaries*

The APE is defined as all areas where ground-disturbing activities are likely to occur. Ground disturbing activities will be confined to the grading and roadway limits presented in Exhibit 2. The irregular boundaries of the grading limits follow the centerline of Co. Rd. 75 for approximately 315 feet. The total APE is approximately 3.5 acres.

4.0 RESEARCH DESIGN

4.1 *Research Objectives*

Research objectives were designed to meet survey requirements of the Secretary of the Interior's Standards for Identification and Evaluation, and the Minnesota State Historic Preservation Office's (SHPO) *Manual for Archaeological Projects in Minnesota* (Anfinson 2011). The general objectives included:

- Identify all historic properties in or adjacent to the APE.
- Describe identifying characteristics of all properties with an attempt to define cultural and chronological associations.
- Preliminary determination of site boundaries, if any.
- Assessment of site integrity.
- Preliminary assessment of National Register eligibility for all historic properties located within the APE.

4.2 *Methodology*

A description of the survey methods is provided below. The general field methodology included:

- Background review of historic records to identify all known historic properties within 2 miles of the project APE.
- Surface inspect the direct effects APE along parallel transects not more than 2 meters apart. Significant buffers for landscape features that may indicate earthworks, burial mounds, cemeteries, artifacts, features, architectural remains and other evidence of human occupation or utilization was included.
- Subsurface testing to assess soil integrity and buried cultural materials. Testing methods included $\frac{3}{4}$ inch soil probes in areas deemed suitable during the surface inspection.
- Soil descriptions, generalized colors and basic stratigraphy were recorded and test locations were recorded with a handheld Delorme GPS unit with +/- 6 foot accuracy. Subsurface test locations and logs are recorded in Exhibits 5 and 6.

5.0 BACKGROUND RESEARCH RESULTS

Background research was conducted to identify all known cultural resources within two miles of the project area. Historic and environmental contexts were also reviewed to identify areas likely to contain cultural materials. Results were then used to develop field research strategies to identify previously unknown cultural resources. Archival records checked included:

- Environmental literature of the project area.
- The Minnesota Site Files maintained at the Office of the State Archaeologist (OSA).
- Minnesota Historical Society Archives.
- Original Public Land Survey records (1870).
- Historical Atlases and Plat books.

The following is a summary of the literature review findings.

5.1 *General Historic Literature Search Results*

The State Historic Preservation Office (SHPO) and the Office of the State Archaeologist (OSA) were visited to review records relevant to the project area. Primary sources included SHPO historic site files and National Register records, Original Land Survey Notes (1870), Andreas (1875), Trygg (1969), and Marchner (1974). The records review did not identify any recorded historic properties within the project area.

5.2 *Known Archaeological Sites*

The archaeological site files of the Minnesota SHPO and the Office of the State Archaeologist were examined to identify any known cultural resources within or near the Project Area. No known prehistoric or historic archaeological sites are recorded within the APE.

Four recorded archaeological sites were identified within 2 miles of the project area (Exhibit 3). The sites identified are:

21-WA-002: a Woodland mound group located approximately 1.6 miles SW of the Project.

21-WA-024: a Woodland habitation site located approximately 1.6 miles SW of the Project.

21-WA-088: a Woodland earthworks located approximately 1.2 miles SW of the Project.

21-WA-099: a prehistoric lithic scatter located approximately 1 mile NNW of the Project.

6.0 SURVEY RESULTS

6.1 *Phase I Archaeological Survey Results*

The field survey was conducted on April 6th of 2016. The APE was subject to pedestrian survey along parallel transects less than 2 meters apart. The pedestrian survey determined that the Project APE has been subject to extensive ground disturbing activities related to the construction of Co. Rd. 75 (Exhibit 4). The Co. Rd. 75 corridor within the APE contains a large road embankment composed of fill. Approaches to the Project have been graded to depths that cut directly into sterile subsoil.

Two small areas were identified that warranted soil probes to assess stratigraphic integrity (Exhibit 5). Area 1 is a small alluvial terrace that is located between the road embankment and the Grey Cloud Slough river channel. Soil probes identified a sequence of erosional and depositional alluvial events to a depth of 1.5 meters below the surface. No "A" horizons were detected in the stratigraphic column. The terrace has a very low potential to contain intact archaeological deposits. Area 2 is a flat, terrace within the road ROW. Soil probes identified disturbed soil to a depth of 1 meter. The stratigraphic integrity of the terrace has been destroyed through a combination of road and utility line construction activities. A total of 3 subsurface tests

were conducted. Test locations are illustrated in Exhibit 5 and test logs are included in Exhibit 6. No additional testing is recommended.

7.0 CONCLUSION

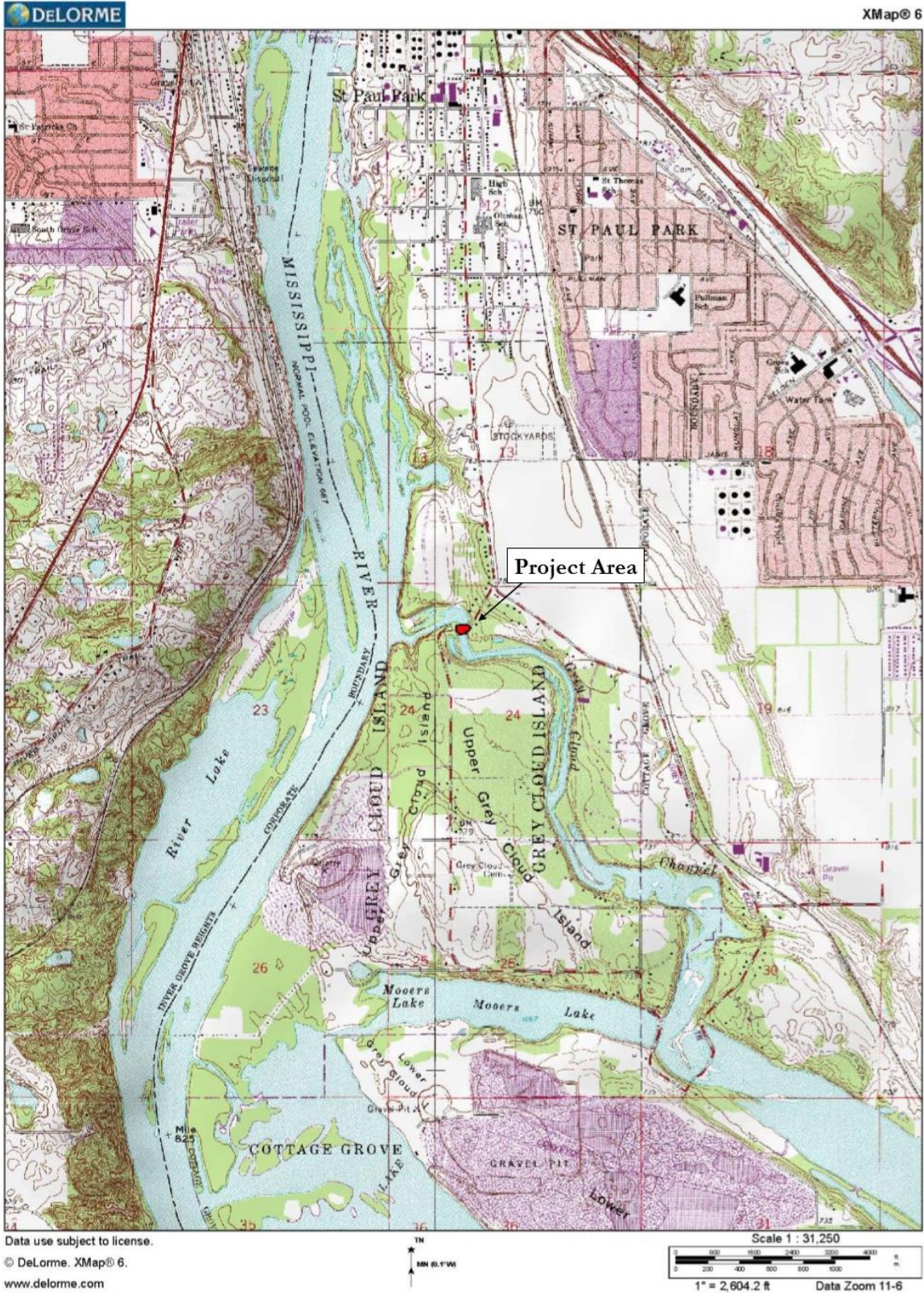
No surface or subsurface archaeological sites or historic structures were identified within the Project APE. No further historic or archaeological investigation is recommended. A finding of No Properties Affected is recommended.

8.0 REFERENCES

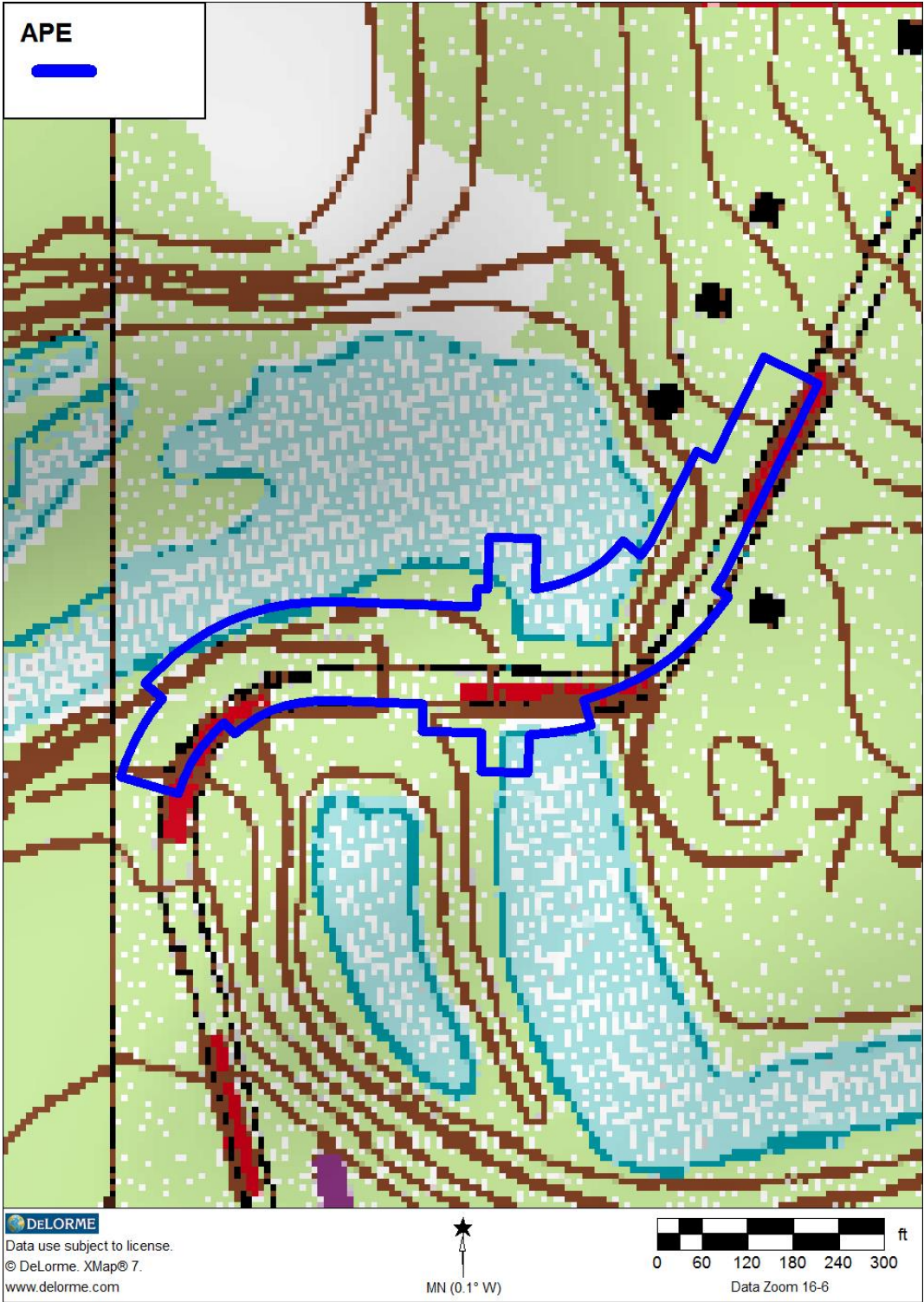
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9.0 EXHIBITS

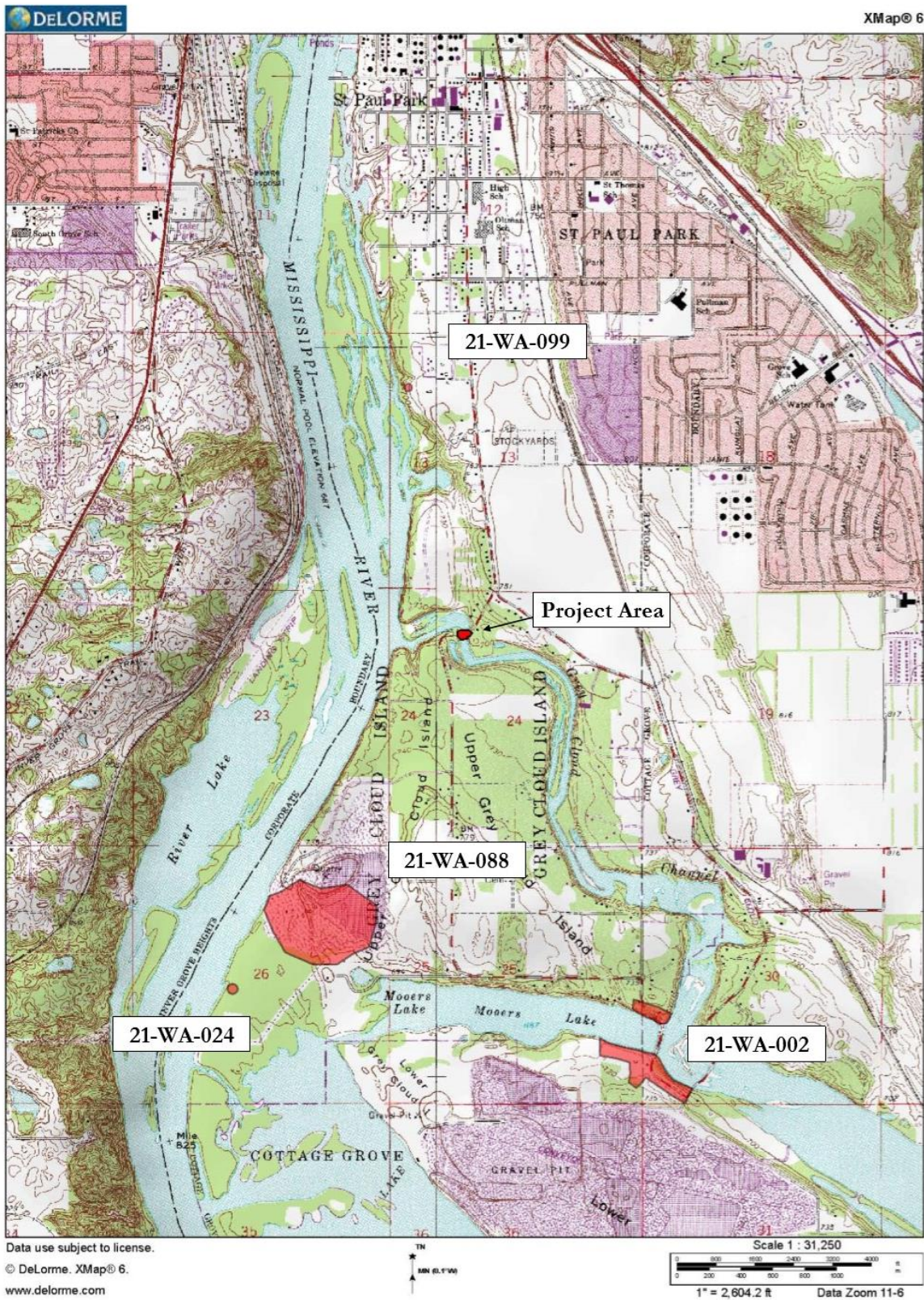
9.1 Exhibit 1: Project Vicinity



9.2 Exhibit 2: Project Layout



9.3 Exhibit 3: Known Archaeological Sites



9.4 Exhibit 4: Pedestrian Survey Photos



Project Area facing west.



Project Area facing east.

Exhibit 4 continued

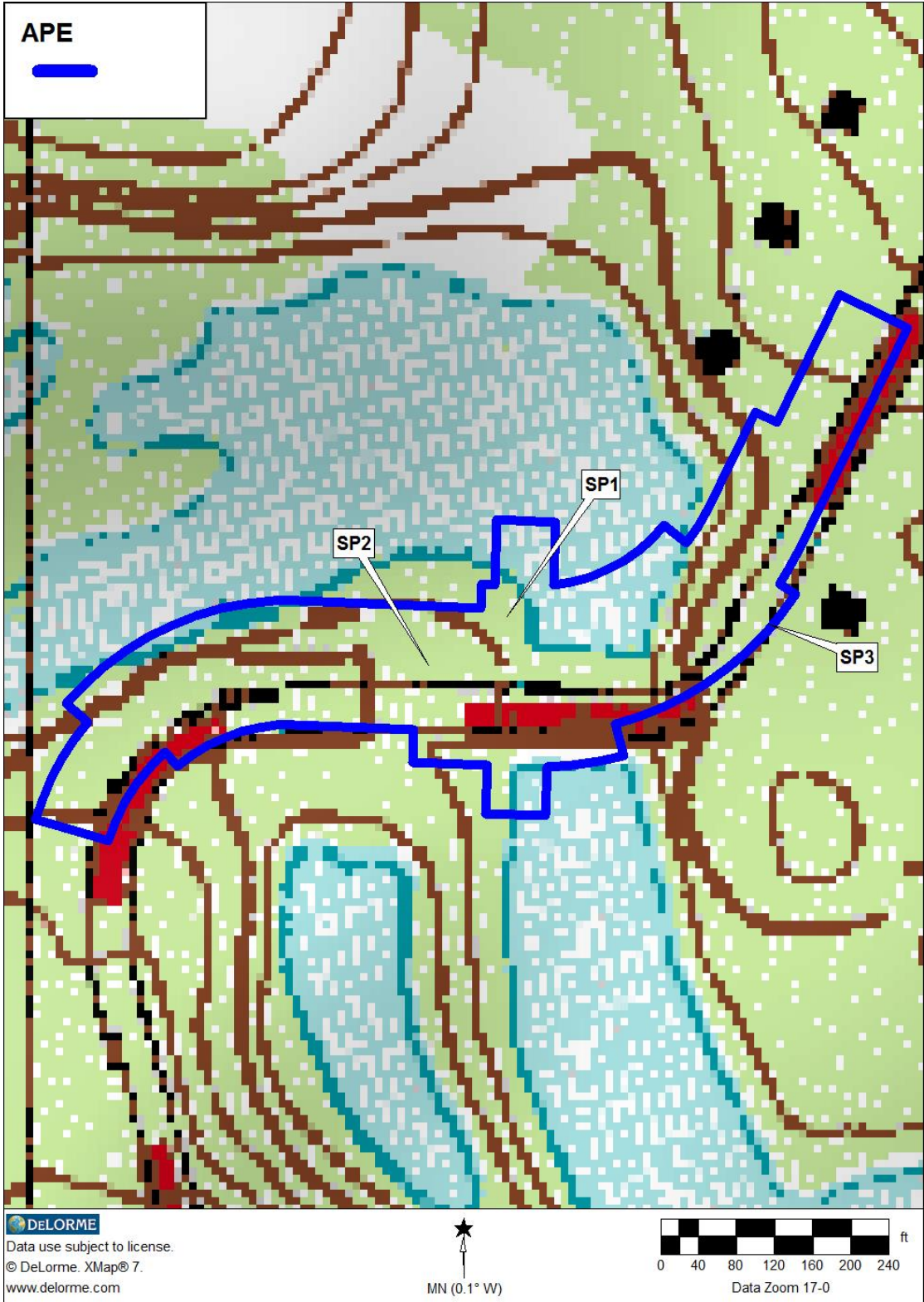


Test Area 1.



Test Area 2.

9.5 Exhibit 5: Subsurface Test Locations



9.6 Exhibit 6: Subsurface Test Log

Test #	Soil Description	Results	Notes
SP-1	0-12cm: black silt sand 12-25cm: mixed light brown sand and clay, looks disturbed. 25-38cm: light brown sand 38-56cm: brown to reddish brown sand 56-90cm: light grey brown sand 90-95cm: reddish brown sand lenses 95-108cm: brown to reddish brown sand	Alluvial sediments	Waterline at 50cm. No "A" horizon present.
SP-2	0-8cm: black silt sand 8-25cm: mixed light brown sand and clay, looks disturbed. 25-38cm: light brown sand 38-50cm: brown to reddish brown sand 50-85cm: light grey brown sand 85-95cm: reddish brown sand lenses 95-100cm: brown to reddish brown sand	Alluvial sediments.	Waterline at 60cm. No "A" horizon present.
SP-3	0-45cm: disturbed 45-70cm: light brown hard pan sand with gravel	Disturbed. Sharp contact with subsoil. Looks graded.	No additional testing