

Work Type Definition and Submittal Requirements

5.4 Contaminated Property Investigation

Work Type Definition

Pages 1- 3 detail the work type definition. In order to become *pre-qualified* for this work type, please see the “Work Type Submittal Requirements” on pages 4-5.

I. Description

Contaminated property investigation involves the investigation of current and proposed MnDOT right of way that is known or suspected to be impacted with pollutants, contaminants or hazardous wastes. The investigations are used to assist MnDOT in determining project alignments and design, reducing liability under Minn. Stat. 115B and 115C, and U.S.C. Title 42 Chapter 103, and avoiding construction delays. This work enables MnDOT to determine the magnitude and extent of contamination problems early in the project development process in order to avoid potential negative impacts to MnDOT employees, the public and the environment. In spite of the most comprehensive pre-project investigations, unexpected contaminated soil or waste or underground tanks may be encountered during construction. This work also provides support during emergency construction situations. This work type includes the following:

- A. Phase I Environmental Site Assessment.
- B. Phase II Drilling Investigation.
- C. Investigation Work Plans.
- D. Remedial/Corrective/Response Action Plans.
- E. Quality Assurance Project Plans (QAPP) and Sampling and Analysis Plans (SAP).
- F. Remedial/Corrective/Response Action Implementation Reports.
- G. Construction Monitoring Documentation Reports.
- H. Tank Removal Monitoring Reports/Excavation Report Worksheets.
- I. Limited Remedial/Response/Corrective Actions (such as contaminated drill cuttings disposal).

II. Standards and Specifications

Standards and specifications required for a project under this work type must include the following:

- A. As directed by MnDOT, Phase I Environmental Site Assessments must be done either in general accordance, or in strict accordance, with *U. S. EPA All Appropriate Inquiries Final Rule, ASTM Practice E 1527-05* and/or the most recent MPCA VIC Program Guidance Document for Phase I work.
- B. All other reports must meet MnDOT requirements for content and layout and be in general accordance with Minnesota Pollution Control Agency, Minnesota Department of Agriculture, and Region V EPA requirements for content and layout.
- C. Phase II Drilling Investigation work must meet MnDOT requirements, be in general accordance with regulatory agency guidelines, and meet or exceed general industry standards.

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III. Provided By MnDOT

Information to be supplied by MnDOT for a project may include the following:

- A. Project location, limits, geometric layouts and preliminary plans.
- B. Historic project information from previous MnDOT investigations.
- C. Right of Entry to private properties.

IV. Provided by Consultant

Deliverables to be supplied by the consultant for a project may include the following:

- A. Phase I Environmental Site Assessment Report
 - 1. Review state and federal regulatory agency records, local records, historic land use records, maps and air photos and current property condition.
 - 2. Identify and describe known and potential contamination problems on properties in the Phase I search area.
 - 3. Complete regulatory agency file review including spill, leak, Voluntary Investigation and Cleanup Program (VIC and AgVIC), Minnesota Environmental Response and Liability Act (MERLA), Resource Conservation and Recovery Act (RCRA) files and Region V EPA files.
 - 4. Determine the risk that a property is or could be contaminated based on the land use history of the property and surrounding area.
- B. Phase II/ Drilling/Remedial Investigation Report
 - 1. Prepare Investigation Work Plan.
 - 2. Complete environmental drilling and/or test pits and sampling.
 - 3. Complete environmental laboratory analysis.
 - 4. Determine magnitude and extent of soil and groundwater contamination.
 - 5. Complete soil vapor risk assessment.
 - 6. Complete groundwater receptor survey.
 - 7. Evaluate natural attenuation.
 - 8. Complete groundwater modeling.
 - 9. Seal wells in accordance with Minnesota Department of Health (MDH) standards.
- C. Response/Corrective/Remedial Action Plan
 - 1. Analyze alternative response/corrective/remedial actions for soil and groundwater cleanup.
 - 2. Recommend response/corrective/remedial actions.
 - 3. Design soil and groundwater treatment system.
- D. Quality Assurance Project Plans (QAPP) and Sampling and Analysis Plans (SAP)
 - 1. Complete analytical data validation in accordance with Region V EPA, Minnesota Pollution Control Agency, MDH, and Minnesota Department of Agriculture guidelines.
- E. Response/Corrective/Remedial Action Implementation Report
 - 1. Document execution and completion of response/corrective/remedial actions.
- F. Tank Removal Monitoring Reports/Excavation Report Worksheets
 - 1. Monitor removal of above-and underground storage tanks to ensure the work is done in accordance with MnDOT requirements and general industry standards.
 - 2. Collect soil and/or groundwater samples for laboratory analysis.

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G. Waste Sampling Report

1. Collect and analyze samples from various containers (such as tanks, drums, etc.), from solid waste/debris piles, and from spill areas.
2. Complete waste characterization analysis and/or hazardous waste profiling of samples.

H. Construction Monitoring Report

1. Screen soil during excavation to separate contaminated from uncontaminated soil.
2. Monitor soil handling, stockpiling, transport and treatment/disposal procedures.
3. Collect soil and groundwater samples for laboratory analysis.
4. Conduct on-site environmental monitoring.

I. Limited Response/Corrective/Remedial Action

1. Obtain all necessary permits and approvals for contaminated soil and/or groundwater and/or industrial waste treatment/disposal.
2. Design, construct and monitor contaminated soil biomounds.
3. Contract for and oversee the transport of contaminated soil to permitted sanitary or industrial landfill.
4. Contract for and oversee the transport of contaminated groundwater to sanitary treatment facility.

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Work Type Submittal Requirements

A consultant firm becomes pre-qualified based on the qualifications of the personnel that are employed by the firm.

Key Personnel Requirements	
Minimum Number of Staff:	At least three professional staff members with demonstrated experience in this work. See below.
Professional Certification/Licensure:	<p>All work for this work type must be completed under the direct supervision of one of the following (one of the three required):</p> <ul style="list-style-type: none"> • Minnesota Board Licensed Professional Geologist • Minnesota Board Licensed Professional Civil or Environmental Engineer <p>Each of the three staff members must have at minimum a four-year university or college degree in geology, hydrogeology, civil engineering, environmental engineering, environmental science, chemistry or other related science AND a minimum of five years of project experience in the activities for the level for which pre-qualification is applied.</p>
Work Type Submittal Requirements*	
<p>I. Resume and Relevant Project Experience Form (Form PQ1)</p> <p><i>Submit in Word format</i></p>	<p>A. Complete Parts 1 and 1A of Form PQ1.</p> <p><u>Part 1:</u> Fill out general information and names of personnel.</p> <p><u>Part 1A:</u> For each person submitted, demonstrate a minimum of five (5) years professional experience in the activities associated with this work type. Each person must provide a total of seven (7) projects: <u>4</u> substantial projects involving major brownfield redevelopment and <u>3</u> projects involving petroleum underground tank removal and/or LUST site Limited Site Investigation and/or LUST site Remedial Investigation. All projects must be within the last 10 years. It is preferred that all project examples are located in Minnesota; however, 1 example of each work type from out of state is permitted. <u>Description must include:</u> responsibilities/ activities/ major contributions on the project and major actions completed. List the title(s) and date(s) of any project reports signed. Provide names of the regulatory agencies interacted with for each project.</p> <p><u>Part 2:</u> Not applicable for this work type. <u>Part 3:</u> Not applicable for this work type.</p>

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II. Proof of Professional Certification/Licensure <i>Submit in PDF format</i>	A. Provide current copies of applicable Professional Certification/Licensure.
*Work Type Submittal Instructions: Create a CD or flash drive that includes the following individual files or folders in this order: I. Resume and Relevant Project Experience Form (Form PQ1) II. Proof of Professional Certification/Licensure Each file should be saved in the format identified above. Submit 5 copies of the CD or flash drive.	