



December 2, 2015

Ms. Lindy Crawford  
City Administrator  
4901 Manitou Road  
Tonka Bay, MN 55331

Re: Scope of Work & Cost – Limited Phase II Environmental Site Assessment  
Pleasant Park  
City of Tonka Bay, Minnesota

Dear Ms. Crawford:

Outlined below is the scope of work and cost to perform a Limited Phase II Environmental Site Assessment (Limited Phase II ESA) for Pleasant Park located at Pleasant Lane, City of Tonka Bay, Minnesota (Property). The purpose of the Limited Phase II ESA is to identify the cause of sinkhole formations at the Property and to determine if hazardous and/or contaminated material is present at these locations.

Based on findings from an environmental desktop review of the Property, we understand that the northern half of the Property was used as a gravel pit from the late 1930's to the late 1960's. We further understand that the material used to backfill the historical gravel pits at the Property is unknown. The purpose of this proposed work is to identify the cause of the sinkhole formations and to determine if hazardous and contaminated material is present within the areas of concern.

The following anticipated tasks are included in the Limited Phase I ESA scope of work:

### **Task 1 - Environmental Oversight**

WSB will provide an environmental scientist who is a Minnesota Department of Health (MDH) certified asbestos inspector, to assess material excavated at the test pits during the Limited Phase II ESA. Excavated material will be screened for organic vapors with a photoionization detector (PID) and assessed for signs of contamination (visual, olfactory, etc.). If debris or solid waste is encountered that is suspect for containing asbestos, samples will be collected of the suspect asbestos containing material (ACM) for laboratory analysis. Soil samples will be collected and submitted for lab analysis for the parameters listed below. Groundwater, if encountered, will also be sampled and submitted for laboratory analysis of the parameters listed below. Any debris encountered will be logged and described in the final report.

The following samples will be collected and submitted to an off-site analytical laboratory for analysis:

### *Soil Sampling*

The soil samples collected from the test pits will be submitted to an off-site analytical laboratory for the analyses of diesel range organics (DRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, xylene (BTEX) and methyl tertiary butyl ether (MTBE) by Wisconsin Modified Method, lead by EPA Method 6010, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270 and, if groundwater is encountered, grain size with hydrometer by ASTM Method D422. It is anticipated that up to 4 samples will be collected for analysis of DRO, GRO/BTEX/MTBE, lead and PAHs and up to 2 samples will be collected for grain size analysis.

### *Groundwater Sampling*

If encountered, groundwater samples will be collected and submitted to an off-site analytical laboratory for analyses of DRO and GRO by Wisconsin Modified Method, volatile organic compounds (VOCs) by EPA Method 8260 and lead by EPA Method 6010. It is anticipated that up to 3 groundwater samples will be collected for analysis of DRO, GRO, VOCs and lead.

### *Suspect ACM Sampling*

If encountered, samples of suspect ACM will be collected for asbestos analysis by Method EPA/600/R-93/116. It is anticipated that up to 5 asbestos samples will be collected for analysis.

## **Task 2 – Reporting**

A Limited Phase II ESA report will be prepared summarizing the findings of the subsurface investigation. All relevant field documents and lab results will also be submitted at that time. At a minimum, the report will include the following:

- Scope of work
- Sample location map
- Photographic log
- Sample methods and procedures
- Investigation results
- Data tables and laboratory analytical reports
- Conclusions and recommendations

## **Assumptions**

- Equipment and operator for test pit excavation will be provided by the City of Tonka Bay.
- Test pit excavation and sampling will be completed during one workday.
- Sample collection will be completed as described above. If additional sample collection is recommended or required, WSB will receive written authorization from the City of Tonka Bay and charged on a time and materials basis.
- All samples will be laboratory analyzed under a standard 10-day turn-around timeframe.

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**Estimated Costs**

WSB will conduct this scope of work for a time and materials cost, not to exceed **\$3,500**. This scope of services will be conducted based on WSB's General Contract Provisions (Attached). Any additional activities beyond the scope of work for the above-listed tasks will be presented to the City of Tonka Bay as a change order to this contract.

We appreciate the opportunity to present this proposal. If you wish to authorize this work, please sign below and submit a copy to WSB. If you have any questions, please contact me at or at your earliest convenience.

Sincerely,

***WSB & Associates, Inc.***



Jeffrey Rice, CHMM  
Senior Environmental Scientist

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I hereby authorize the above scope of work, schedule, and cost.

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Signature

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Date