

ENVIRONMENTAL SITE ASSESSMENT SERVICES



Engineering Client Success

PHASE I

The Phase I Environmental Site Assessment (ESA) includes the collection and review of site-specific background data and Site reconnaissance of the property. The background survey focuses on determining past use and ownership of the Site. Appropriate regulatory agencies are contacted regarding past and present operations at the Site. Available Site information such as maps, aerial photos, and other publications regarding environmental conditions at the site are also reviewed. The Phase I is completed by an Environmental Professional (EP) according to the ASTM E1527-05 Standard.

During a Site reconnaissance, an EP will look for signs of potential environmental conditions or concerns, which may include evidence of buried or discarded drums or containers; stained, discolored, or disturbed soils; stressed vegetation; pipes or other objects protruding from the ground; and evidence of underground storage tanks.

Existing and past operations on surrounding properties are also reviewed to determine the potential for migration of contaminants onto the Site. The Phase I also considers regulatory agency records of known environmental conditions on the surrounding properties.



PHASE II

The Phase II ESA is performed in the event that the Phase I ESA indicates the potential or actual presence of recognized environmental conditions as defined in the ASTM guideline. These conditions include the past, present, and future threat of a release of toxic, hazardous, or harmful materials or wastes to the Site. Phase II investigations generally consist of soil, groundwater, or hazardous materials sampling through the use of grab samples, soil borings, and/or monitoring wells. The samples are transported to a TEC-approved laboratory for analytical testing and results to determine the presence of contamination.

Phase II investigations may also consist of regulatory file review and consulting services to assist clients with existing areas of known contamination, waste management, or compliance issues.



In the event that contamination is identified, additional sample collection and analysis may be recommended in order to identify the vertical and horizontal extents of contamination. Once the nature and extent of contamination is defined, the appropriate remediation technique can be determined, and recommendations and cost estimates for cleanup can be provided.

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BASELINE ENVIRONMENTAL ASSESSMENT (BEA)

A BEA is an evaluation that is typically performed at the time of purchase, occupancy, or foreclosure that reasonably defines the existing environmental conditions and circumstances of the site as a facility*. The BEA also includes a description of the intended future use of the Site and identifies specific chemical use, if any. In the event of a subsequent release, there is then a means of distinguishing the new release from existing contamination. The BEA is then filed with the Michigan Department of Natural Resources and Environment (DNRE) as a record of the new owners' environmental liability protection.



There are three categories of BEAs. The N Category is appropriate when there will be no significant hazardous substance use on the property. The D Category is appropriate when the hazardous substances to be used on the property (in significant quantities) are different than the hazardous substances known or likely to be property contaminants.

The S Category is appropriate when the hazardous substances to be used on the property (in significant quantities) are the same as hazardous substances known or likely to be property contaminants. This classification would require a more extensive evaluation to determine the full extent of the existing contamination and to provide a basis for determining past and future releases at the Site.

A BEA must include at a minimum an ASTM E1527-05 Phase I ESA (as defined) or equivalent. In most cases, a BEA includes a Phase I ESA and follow-up Phase II ESA, which identifies the contaminant concentrations. Once the ESA work has been completed, the BEA report is prepared and submitted to the DNRE.

* "Facility" is any area, place, or Site where hazardous substance in excess of the concentrations, which satisfy the requirements of Sections 2012a(1) (a) or (17) has been released, deposited, disposed of, or otherwise comes to be located. A facility does not include areas in which response activities to satisfy residential criteria have been conducted.



Should you require a Phase I or II ESA or a BEA, call on TEC's environmental professionals for an innovative, cost-effective approach to your project.