

PROJECT SPOTLIGHT | ASSESSMENT, REMEDIATION, & FREE PRODUCT RECOVERY - ARCADIA COUNTRY STORE - ARCADIA, IOWA

SCOPE OF PROJECT

A Tier 2 site cleanup report (SCR), classifying the site as “high risk”, was completed in May 1998. The Iowa Department of Natural Resources (IDNR) accepted the high risk classification and required preparation of a corrective action design report (CADR). The CADR was submitted in May 2000 and proposed a limited excavation of impacted soils and replacement of plastic water lines. On June 7, 2002, 160 feet of plastic water line was replaced with cast iron piping, resulting in the groundwater to plastic water line pathway being reclassified to “no action required”. In December 2005, two 5,000-gallon gasoline tanks and one 5,000-gallon diesel tank were removed from the subject site. Analytical results obtained during the tank closure indicated benzene concentrations above the original Tier 2 source concentration for soil. In 2008, the site building was removed, allowing for previously inaccessible soil to be removed. Expedited corrective action in the form of an excavation was proposed to address the soil contamination. **BARKER LEMAR** conducted pre-corrective action soil sampling to determine the extent of the proposed overexcavation.



IMPLEMENTATION

The purpose of the excavation was to remove the bulk of the petroleum hydrocarbon-impacted soils to reduce the source area and move the site towards reclassification.

BARKER LEMAR began and completed corrective action implementation with the excavation and disposal of over 2,449 tons of petroleum hydrocarbon-impacted soil. Nuclear density testing was completed on the backfill material to ensure adequate density and moisture was present during placement in the excavation area. Soil samples were collected during excavation activities in accordance with Iowa Administrative Code, Chapter 135. Laboratory analytical results obtained during the evaluation indicated that petroleum hydrocarbon concentrations in remaining soil were below Tier 1 action levels and/or site-specific target levels (SSTLs). A revised Tier 2 is scheduled to be completed in July 2009, reclassifying soil receptors to “no further action”.

SERVICES

Site assessment; remediation system development and design; monthly, quarterly, and annual monitoring and reporting; monthly free product recovery.

TIMELINE

Project Start Date: May 2000

Project Completed: Excavation, ORC placement, PWL replacement June 2002.

Free product recovery ceased January 2003.

UST system removed in Fall 2005.

Monitoring and reporting is ongoing.