

Phase 2 Environmental Site Assessment

649 W. High Street

Date of Report: February 23, 2014

Assessment Funding: Building Development Services

Acres: approximately 0.37

Site Background

Seagull Environmental Technologies, Inc. conducted a Phase II Environmental Site Assessment (ESA),



January 24, 2014, of the 649 W. High Street site in Springfield, MO. The site is a vacant, grass-covered, 0.37-acre lot. The site is northwest of the W. High Street and Concord Avenue intersection. The site is owned by the City of Springfield. The purpose of the Phase II ESA was to determine whether past site operations at adjacent properties have resulted in releases of petroleum products and/or hazardous contaminants to environmental media (soil) at the subject property.

The Phase II ESA included the collection of five soil samples from five boring locations across the site. The soil samples were submitted for laboratory analysis of volatile organic compounds (VOC), polynuclear aromatic hydrocarbons (PAH), total petroleum hydrocarbons (TPH)—gasoline range organics (GRO)/diesel range organics (DRO), and metals regulated under the Resource Conservation and Recovery Act (RCRA). For evaluation purposes, soil sample results were compared to their respective Missouri Risk-Based Corrective Action (MRBCA) standards established by the Missouri Department of Natural Resources (MDNR).

Findings

Soil samples collected from the site contained low levels of PAHs and RCRA metals. One sample, from SB-4 (4 to 6 feet below ground surface [bgs]), contained two PAH compounds. Those were benzo(g,h,i)perylene at 0.061 J milligrams per kilogram (mg/kg) and dibenzo(a,h)anthracene at 0.047 J mg/kg. The detected concentrations of those PAHs were well below their respective MRBCA standards. The RCRA metals arsenic, barium, cadmium, chromium, lead, mercury, and selenium were detected in all of the soil samples. Two RCRA metals - arsenic and lead - were detected at concentrations that exceeded their respective MRBCA Default Target Levels (DTL). Four of the samples contained arsenic above its MRBCA DTL of 3.89 mg/kg, at concentrations that ranged from 3.2 to 10.6 mg/kg. Currently, there are no MRBCA Tier 1 Risk-Based Target Levels (RBTL) established for arsenic in subsurface soil. All of the samples contained lead above its MRBCA DTL of 3.74 mg/kg, at concentrations that

ranged from 12.7 to 30.5 mg/kg. None of the lead concentrations exceeded its MRBCA Tier 1 RBTLs established for residential and non-residential subsurface soil, which are 260 and 660 mg/kg, respectively. Based on average levels of metals in Greene County soils, it is likely the detected arsenic and lead concentrations are naturally occurring. The detected concentrations of PAHs, arsenic, and lead are low and do not pose a risk to future use and redevelopment of the site.