Mundell & Associates, Inc.
110 South Downey Avenue
Indianapolis, Indiana 46219-6406
Phone: 317-630-9060, Fax: 317-630-9065,
Email: info@MundellAssociates.com
www.MundellAssociates.com

CASE HISTORY

Phase I & Phase II Investigation

Challenge:
MUNDELL & ASSOCIATES, INC. (MUNDELL) was retained in 2006 to perform a Phase I Environmental Site Assessment (ESA), followed by a Phase II investigation at an equipment refurbishing and storage facility in central Indiana. The Site is located in a mixed commercial and agricultural area. Current operations at the Site include restaurant equipment refurbishing and contractor storage. Partial use of the building as an automobile repair facility has reportedly taken place.

Action:
Phase I Environmental Site Assessment (ESA) was performed by MUNDELL in May 2006. The findings of this assessment disclosed the following Recognized Environmental Concerns (REC) at the Site: adjacent active junkyard to the north, adjacent debris area to the east, floor trench drain outlet area to the north of the building, construction materials storage area northeast of the building. MUNDELL recommended the sampling and analytical testing of Site groundwater along the northern fence line, adjacent to the junkyard area in order to determine the presence or absence of Site groundwater impacts. Further sampling and analytical testing of soils beneath the other RECs was also recommended in order to determine with increased confidence the presence or absence of environmental impacts from adjacent or on-site past operations. Accordingly, seven (7) geoprobe borings and four (4) hand auger borings were advanced at the REC locations onsite, in May 2006. Groundwater samples were collected at the two water wells on the property for laboratory analysis.

Results:
Barium, chromium VI, and lead were present above the laboratory detection limits in all the soil samples collected. All the detected concentrations were below the IDEM RISC Default Residential as well as Industrial Closure Levels (RDCL and IDCL). Arsenic was detected above the RDCL in all of the soil samples, and above the IDCL in four of the soil samples. MUNDELL believed that the concentrations of arsenic (and barium, chromium VI, and lead) found in these soil samples were within the range of naturally-occurring background soil heavy metals concentrations in Indiana. According to a 2004 Brownfields Bulletin, *"Naturally occurring arsenic concentrations in Indiana soils vary from less than 2 milligrams per kilogram (mg/kg) to as much as 13 mg/kg".* The elevated arsenic concentrations found in Indiana soil are the result of the presence of the arsenic-containing minerals such as arsenopyrite, pyrite and iron oxides. The arsenic concentrations found at the Site were well within the typical range for Indiana soils. As such, MUNDELL concluded that the arsenic found in the soil is likely to be naturally-occurring and not indicative of contamination. None of the Total Petroleum Hydrocarbon and Volatile Organic Compounds tested exceeded RDCLs. Thus, the soil and groundwater analytical results from the potential areas of concern did not appear to pose any potential for environmental concern.