State of Maine
Department of Environmental Protection
Bureau of Remediation and Waste Management
Division of Technical Services

TO: Nick Mayhew, Project Manager

FROM: Sean R. Dougherty, Certified Environmental Hydrogeologist

DATE: August 20, 2015

SUBJECT: Summary of Sample Results Collected June 2015
C. Smith Property, Meddybemps

On June 3rd, 2015 the Maine DEP (Nick Mayhew, Nick Hodgkins, Chris Redmond, Jim Lavoie and Sean Dougherty) conducted sampling at the C. Smith property, located along Main Street (Rt. 191), in Meddybemps. The purpose of this sampling event was to characterize the groundwater, soil and soil gas/indoor air relative to the historical COCs for the purpose of identifying relative risk to future site occupants. Samples of groundwater, surface soil, sub-slab soil gas and indoor air were collected from the property.

The Charlotte Smith Property was the location of the residence of the former owner of the Eastern Surplus Superfund site. The site is a large flat parcel that is bounded by Main Street (Route 191) to the south, by the Dennys River to the north and west, and by Lombard Road to the east. The area surrounding the subject property is primarily residential.

The residence on the subject property was the focus of a removal action by the DEP which oversaw the removal of more than 200 5-gallon containers of industrial solvents including tetrachloroethylene (PCE) from the basement of the home. Previous investigations at the subject property have included the collection of concrete from the basement, and soil and soil gas samples from below the concrete slab. Analytical results of samples collected from within the basement indicated that there were elevated levels of volatile organic compounds (VOCs) in the breathing air, concrete, soil, and soil gas of the residence. Previous sampling of groundwater from the onsite monitoring wells indicates the presence of PCE. Sampling of site soils has shown isolated areas with VOC, PAH and PCB contamination.

During the June 2015 sampling round four monitoring wells (including the former site water supply well) were sampled for VOCs. Groundwater sampling showed minimal impact from historical site practices. Chloromethane was the only

compound detected at locations CS-1A, CS-2B and Supply Well. At monitoring well CS-1B chloromethane and PCE were detected in the groundwater samples. The concentrations of all detected compounds in the groundwater samples were well below the associated RAG values.

Surface soil samples were collected from four locations between the house and the barn located on the subject property and two were collected from the dirt floor within the barn. All surface soil samples were tested for VOCs, SVOCs and PCBs. Low level VOCs and SVOCs, primarily PAHs and bis(2-ethylhexyl) phthalate, were detected in the soil samples, all below the associated RAG values. PCBs were detected at three locations (SS-101, SS-103, SS-104) above the residential RAG value.

Sub-slab soil gas and indoor air samples were collected from the house on site. All samples were tested for VOCs. Two sub-slab soil gas samples (SG-101, SG-102) were collected from beneath the concrete basement floor. TCE and PCE were detected at both locations above the RAG values. Chloroform was detected in sample SG-102 at the residential RAG value. One indoor air sample was collected from the basement (Basement Ambient) and two indoor air samples were collected from the first floor living space (1st Floor Kitchen, 1st Floor Bedroom). Several VOCs were detected in the samples, including PCE which was detected in all three samples above the associated RAG value.

Sample results show that, in isolated areas, soils at the subject property remain impacted by historical poor housekeeping practices onsite. Surface soil in the area directly to the north of the house is contaminated with PCBs above regulatory guidelines. A rough estimate of the total volume of contaminated soil in this area is approximately 80 cubic yards (assuming a contaminant depth of 2 feet). Sub-slab soil gas and indoor air sample results indicate that the soils underlying the house foundation floor are likely highly contaminated and are resulting in contaminated indoor air within the house.

Cc. Brian Beneski, MDEP