

September 11, 2015

Mr. Michael Wilson
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Re: Soil Sampling Summary Report
220 South Union Street
Alexandria, VA 22314
Cardno Project Number: 10186.0164

Dear Mr. Wilson:

ATC Group Services, dba as Cardno ATC, was retained by Carr City Centers ("Client") to provide periodic sampling of soils to be excavated from 220 South Union Street, Alexandria Virginia 22314 (Site). A series of four sampling events were projected for the project. This report summarizes the results of the first sampling event which was conducted on September 4, 2015.

Cardno ATC mobilized to the Site to collect a series of 5 soil samples from test pits that were excavated across the Site. The samples were collected as composite samples from depths of 0 to 4 feet below the ground surface (bgs). The samples were designated as S-1 (SW quadrant), S-2 (NW quadrant), S-3 (center section), S-4 (SE quadrant), and S-5 (NE quadrant). See attached Figure 1 for sample locations.

Each of the samples was submitted to Phase Separation Science in Baltimore Maryland for laboratory analysis of the following parameters:

- Total Petroleum Hydrocarbons-Gasoline Range Organics (TPH-GRO) per EPA Method 8015
- Total Petroleum Hydrocarbons-Diesel Range Organics (TPH-DRO) per EPA Method 8015
- Volatile Organic Compounds (VOCs) per EPA Method 8260
- Semi-volatile Organic Compounds (SVOCs) per EPA Method 8270
- Priority Pollutant List (PPL) Metals per EPA Method 6020
- Oil and Grease per EPA Method 9071

Note that analysis of Oil and Grease was not included in the original approved scope of work and was added at the request of Client.

The laboratory turnaround was also expedited at the request of Client.

Results of the laboratory analysis are as follows:

- TPH-GRO was not detected in any of the samples at concentrations above laboratory reporting limits.

- TPH-DRO was not detected in any of the samples at concentrations above laboratory reporting limits.
- VOCs were not detected in any of the samples at concentrations above laboratory reporting limits.
- Low concentrations of SVOCs were detected in samples S-3 and S-1. The majority of the SVOC detections were identified in sample S-3. All detected concentrations of SVOCs fall below Virginia Department of Environmental Quality (DEQ) risk based cleanup standards for commercial land use.
- A series of PPL Metals were detected in each of the soil samples. All of the detected metals concentrations fall below DEQ risk based cleanup standards for commercial land use.
- Oil & Grease was detected in sample S-4 at a concentration of 72 mg/kg. Oil and Grease was not identified at concentrations above laboratory reporting limits in any of the remaining soil samples. Note that Oil and Grease analysis covers a wide range of hydrocarbons that includes animal and vegetable fats as well as petroleum products. DEQ does publish cleanup standards for Oil and Grease and does not utilize Oil and Grease results in the evaluation of petroleum releases. Based on the detection of Oil and Grease without corresponding detections of TPH-GRO, TPH-DRO, SVOCs, and/or petroleum associated VOCs, no evidence of a significant release of petroleum in the area of sample S-4 has been identified.

The current sampling event did not identify any compounds in any of the 5 soil samples submitted for the referenced laboratory analyses at concentrations above DEQ risk based cleanup standards for commercial land use.

Respectfully Submitted,

CARDNO ATC



Stephen Miller, P.G.
Environmental Division Manager
Cardno ATC – Columbia, MD



Aaron Nissen
Environmental Project Manager
Cardno ATC – Columbia, MD

Attachments

Figure 1 - Sample Location Plan
Appendix A - Laboratory Analytical Report

FIGURE 1
SOIL SAMPLE LOCATIONS

APPENDIX A

LABORATORY ANALYTICAL REPORT