LABELLA Associates, P.C.

Engineering
Architecture
Environmental
Planning

Area of Concern #14 Work Plan: Petroleum-Impacted Soil Removal

NYSDEC ERP No. B00016

Location:

Former Photech Imaging Site
1000 Driving Park Avenue
Rochester, New York

Prepared for:

City of Rochester
Division of Environmental Quality
30 Church Street
Rochester, New York 14614

LaBella Project No. 209288
City DEQ No. 032536

March 2012

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1.0 Introduction & Background

LaBella Associates, P.C. (LaBella) has prepared this Area of Concern (AOC) #14 Work Plan (WP) on behalf of the City of Rochester, Department of Environmental Services (DES), Division of Environmental Quality (DEQ) for the former Photech Imaging Systems, Inc. (Photech) parcel located at 1000 Driving Park Avenue, City of Rochester, Monroe County, New York, hereinafter referred to as "the site."

The site is listed as New York State Department of Environmental Conservation (NYSDEC) Site Code B00016 and is enrolled in the NYSDEC's Environmental Restoration Program (ERP).

During the excavation of historic infrastructure, as outlined in the New York State Department of Environmental Conservation (NYSDEC) approved Remedial Action Work Plan No. 6, petroleum impacted soil was encountered in the eastern portion of the Site. Stained soils and petroleum odors were observed during the removal of a water main (~3-4' below ground surface [bgs]) and a former electrical pipe conduit (~3-4' bgs). The location of each excavation is indicated on Figure 1. It is possible that the petroleum impacts may extend down to 6' or deeper in some locations. Additionally, a sheen developed on groundwater that accumulated in the water main excavation.

In an effort to delineate the vertical and horizontal extent of petroleum impacts in this area of concern (AOC) previous data from the Design Phase Investigation was reviewed. Both Aboveground and Underground storage tanks (USTs) were historically located to the north of AOC #14, however based on field screening and associated soil analytical results collected during the DPI it appears that the AOC is not associated with these historic AST/USTs. Additionally, two (2) transformer pads were historically located to the south of AOC #14. Based on the results of the DPI, only minor impacts to soil and groundwater were found to be associated with the former transformer pads. All supporting analytical data suggests that the transformer oils historically used in these two (2) transformers did not contain PCBs. Additionally, impacted soil sampled while investigating AOC #14 was reported to contain only two (2) SVOCs (Fluoranthene and Pyrene) at concentrations above the laboratory method detection limits (487 ppb and 405 ppb, respectively).

In order to further delineate AOC #14 a test pitting investigation was conducted. Test pit locations were strategically chosen to fill data gaps between the observed impacts during excavation activities and the data points associated with the DPI (see Figure 1). A total of ten (10) test pits were advanced to evaluate AOC #14. Soil was continuously screened during each test pit for visual and olfactory indications of contamination as well as with a Photo Ionization Detector (PID). Impacts were only observed in Test Pits 3 and 9 at an approximate depth of 2-4' bgs, Figure 1 shows the location of observed impacts within the test pits. Although no soil impacts were observed associated with TP-7, coolant oils were present with historical conduits removed during the advancement of TP-7.

Based on a review of existing data and the advancement of ten (10) test pits, it does not appear that widespread petroleum contamination is present in this AOC; however, localized petroleum impacts emanating from the former electrical transformers and their associated conduits appear to be present on the eastern portion of the site, and may have migrated eastward via preferential pathways such as the water main. Impacted soil removed during the utility decommissioning excavations has been staged on polyurethane sheeting.

1.1 Standards, Criteria and Guidelines

This section identifies the Standards, Criteria and Guidelines (SCGs) for AOC #14. The SCGs identified are used in order to quantify the extent of contamination associated with AOC #14 that may require remedial work. The SCGs for soil and groundwater are provided below.

Soil SCGs

The SCGs for soil used in this WP are:

- NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (RPSCOs) for the Protection of Public Health – Restricted Commercial Use.
- Nuisance characteristics including visual and olfactory indications of impairment.

Groundwater SCGs

The SCGs for groundwater used in this WP are:

- NYSDEC Part 703 Groundwater Standards.
- Free product or liquid phase non-aqueous liquids, including petroleum sheens.

2.0 Objective

The objective of this proposed WP is to remove the petroleum impacted soil displaying nuisance characteristics and groundwater from the Site. The overall objective for the Site is to redevelop the property for commercial use. AOC #14 is in a location that will likely be excavated to meet proposed design grades for future redevelopment.

3.0 Summary of the Remedial Goals

The proposed future use for the Former Photech Imaging Site is commercial uses. As such, at a minimum, the WP must eliminate or mitigate all significant threats to public health and/or the environment presented by the subsurface impacts identified at the Site through the proper application of scientific and engineering principles.

The Remedial Goals for this Work Plan are as follows:

1.) remove the petroleum impacted soil, including those exhibiting nuisance characteristics to the extent practicable;

2.) confirm the effectiveness of any required remedial activities through confirmation soil sampling and visual and olfactory observations;

3.) compare confirmation soil sampling analytical data to the RPSCOs for the Protection of Public Health – Restricted Commercial Use; and,

4.) dewater, containerize, treat (if necessary), and dispose of any liquid materials found to accumulate within the remedial excavation in any significant quantity.

Impacted soils and liquid materials shall be containerized, characterized, and disposed of off-site and in accordance with applicable local, state, and federal regulations.

4.0 Scope of Work

Petroleum impacted soils will be removed from AOC #14 for off-site disposal at a NYSDEC Part 360 Permitted Landfill. Initially the excavated area near the eastern property boundary will be excavated to approximately 10' bgs and shallow overburden groundwater will be removed in an attempt to aggressively reduce the overall contaminant mass in this area.

The WP is designed to reduce the toxicity and mobility of contamination found in the eastern portion of the site, be protective of human health and the environment, and reduce potential exposure to future users of the Site. It appears that impacts are limited in extent as discussed above. Impacted soils will be excavated until the bottom of the excavation as well as each sidewall of the excavation no longer exhibit nuisance characteristics.

Impacted soils and liquid materials shall be containerized, characterized, and disposed of off-site and in accordance with applicable local, state, and federal regulations.

Note: All equipment to be utilized on-site for the IRM field activities shall arrive on-site fully decontaminated. Proper decontamination off-site is required before equipment is allowed on-site.

4.1 Health and Safety Plan and Community Air Monitoring Plan

Health and Safety Plan (HASP)

The Health and Safety Plan (HASP) included as Appendix 5 of the RAWP will be adhered to during all WP-related activities.

Community Air Monitoring Plan (CAMP)

The Community Air Monitoring Plan (CAMP) included as Appendix 2 of the RAWP will be adhered to during all WP-related activities.

4.2 Environmental Management Plan to Guide Remedial Excavations

The Environmental Management Plan (EMP) included in Section 6.1 of the RAWP will be adhered to during all WP-related activities and is intended to guide the source removal, disposal, and management of impacted soil and impaired groundwater that may be generated during the IRM.

5.0 Characterization and Off-Site Disposal of Source Area Soils

The impaired soils removed as part of this WP will be sampled for waste characterization samples in accordance with the accepting landfill's policy.

After the analytical characterization results are received, they will be forwarded for landfill acceptance. Following landfill acceptance, the soils staged for off-site disposal will be loaded, transported, and disposed of at a NYSDEC Part 360 permitted landfill. Weight tickets and waste manifests/bills of lading will be retained. A valid Part 364 permit will be required for any vehicle utilized to transport waste off-site. Loading and transport of waste will take place Monday through Friday, during normal business hours, generally prior to 3:00 p.m.

5.1 Confirmation Sampling

Excavation closure sampling will be conducted in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 2010.

All observable contaminated soils exhibiting evidence of impairment and/or nuisance characteristics will be removed from the proposed AOC #14 excavation to the extent practicable. Soil confirmatory samples will not be collected until evidence of impairment is no longer observable from the excavation sidewalls and bottom. This includes any PID readings greater than background readings.

Confirmation sample locations and depth will be biased toward the areas and depths of highest contamination based on field indicators such as field instrument measurements or visual contamination identified during the remedial action.

Because the exact dimensions of the AOC #14 excavation will not be known until the excavation is completed, a specific quantity of samples cannot be determined at this time. Instead, confirmation soil samples will be collected in accordance with the guidance outlined in DER-10 and professional judgment.

The sampling equipment will be required to be decontaminated prior to use, including an alconox and potable water wash followed by a potable wash rinse.

5.2 Confirmation Sampling Analysis

Excavation closure samples will be collected and submitted to a NYSDOH ELAP certified laboratory. In accordance with Section 6.1, the final size of the excavation will determine the exact number of sidewall and bottom samples required. Each confirmation sample will be collected and analyzed for:

- CP-51 Table 2 using USEPA Method 8260B
- CP-51 Table 3 SVOCs using USEPA Method 8270C

Laboratory analytical data packages will be provided as ASP Category B deliverable packages. A data usability summary report (DUSR) will be provided for each laboratory analytical data package.

The locations of the confirmatory soil samples and the extent of the excavated areas will be documented using GPS technology.

5.3 Waste Stream Tracking and Verification in Accordance with the EMP

This documentation may include correspondence from the facility accepting the waste stream, manifests, bills of lading, and weight tickets.

The tracking information will be provided in the Final Engineering Report (FER).

5.4 Site Restoration

The AOC #14 excavation will be excavated based on the contractor's schedule and backfilling activities will be completed with suitable onsite material and pre-approved off-site material, as needed, when closure samples are received and it is determined that the remedial activities have achieved the SCGs.

5.5 Excavation Dewatering, Water Treatment, and Sewer Discharge

It is considered unlikely that groundwater will infiltrate and enter the AOC #14 excavation given that groundwater is generally at approximately 9 ft bgs across the Site and the proposed IRM excavation will likely only extend 4.5 ft bgs. In an attempt to remove groundwater as part of the IRM activities, an excavation will be advanced to a depth below groundwater so that groundwater and additional contaminant mass can be removed throughout the WP activities. The groundwater recovered from the excavation shall be pumped to frac tanks and characterized in accordance with the MCPW guidelines and if acceptable discharged to the MCPW system. If the wastewater is not acceptable for discharge to the MCPW system then the wastewater must be treated and re-sampled or shipped off-site for disposal.

The following steps will be taken to receive permission to discharge the batched groundwater to the public sewer system:

- Written notification to the local municipality of intent to discharge to their sewer system
- Completion of a Permit Application for the discharge of accumulated groundwater
- Sampling and analysis of accumulated groundwater, as required and specified by site-specific permit requirements
- If required, treatment of groundwater by activated carbon adsorption or other methods
- Following approval, selection of a sewer manhole for discharge of accumulated groundwater
- Discharge of accumulated groundwater to the selected manhole in accordance with the site-specific sewer discharge permit

6.0 AOC #14 Work Plan Reporting – Deliverables

The information and laboratory analytical data obtained during the AOC #14 remedial activities will be included in the FER.

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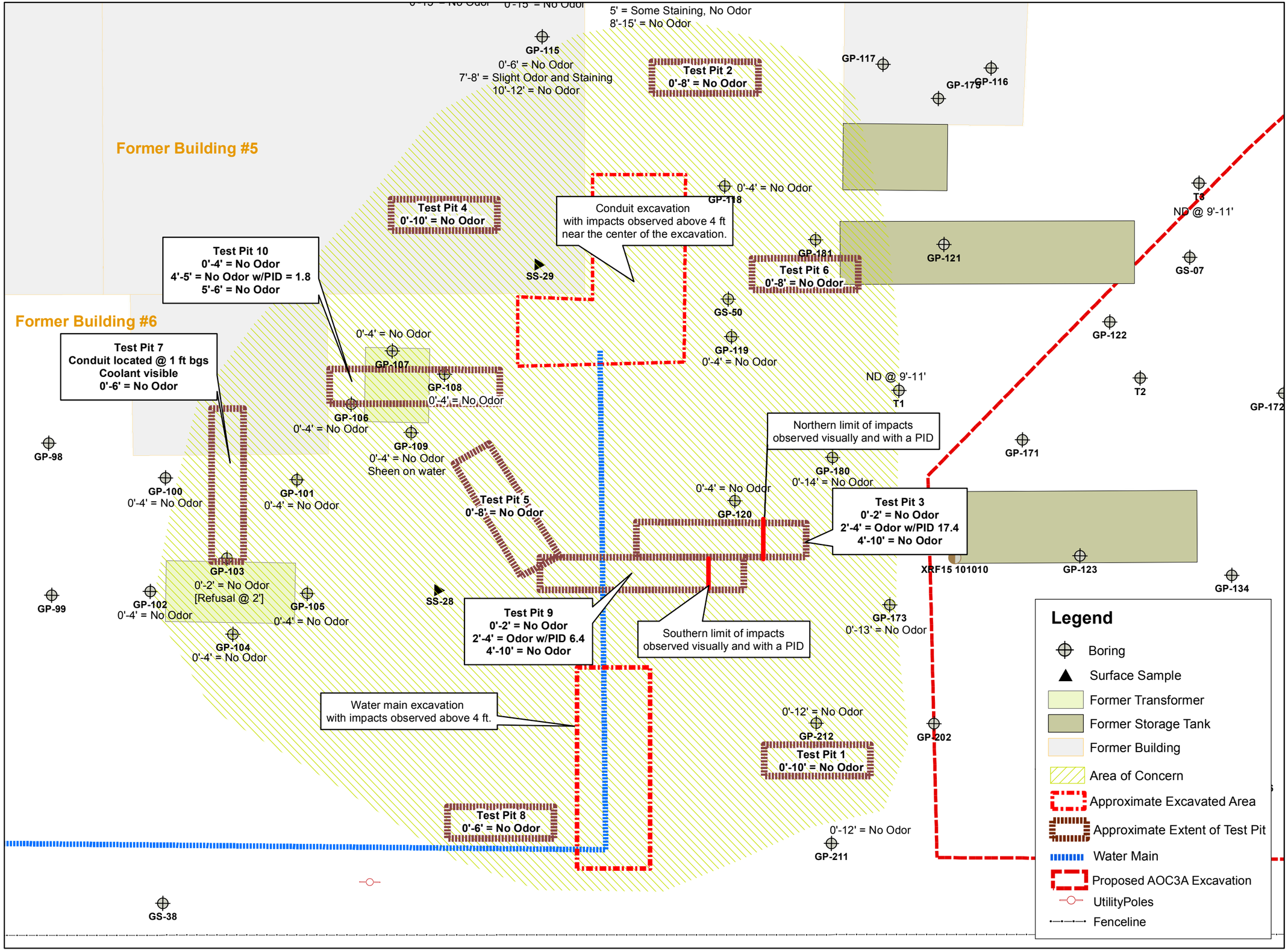
Figure



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CITY OF ROCHESTER

FORMER PHOTECH SITE
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AREA OF CONCERN 14
WORK PLAN

Nuisance Odor Area
Test Pit Investigation

0 5 10 Feet

1 inch = 11 feet

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FIGURE 1

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