



June 18, 2018

Mr. David Locey
Project Manager
NYSDEC Division of Remediation
270 Michigan Avenue
Buffalo, New York 14203

**Re: 1827 Fillmore Avenue Site, Buffalo, NY (BCP Site No. C915279)
Supplemental Remedial Investigation (RI) Work Plan for Bedrock Drilling
Activities**

Dear Mr. Locey:

Benchmark Environmental Engineering and Science, PLLC in association with TurnKey Environmental Restoration, LLC (Benchmark-TurnKey) has prepared this Supplemental RI Work Plan for the implementation of supplemental RI activities at the 1827 Fillmore Avenue Site, BCP Site No. C915279, located in the City of Buffalo, New York (Site).

Benchmark-TurnKey previously completed RI fieldwork at the Site with soil/fill and groundwater sampling activities. In accordance with the approved RI Work Plan, overburden groundwater monitoring wells were not installed at investigation locations MW-1, MW-2 and MW-3 as no field evidence of overburden groundwater was observed during the work.

The New York State Department of Environmental Conservation (NYSDEC) has requested further work consisting of drilling into bedrock for the purpose of groundwater sampling on the western portion of the Site. The planned scope of work for this work plan is further described below.

Drilling and Monitoring Well Installation Activities

An auger rig will be used to re-advance borings in the areas of RI locations MW-1, -2 and -3 (see the attached Figure outlining MW-1 through MW-3 locations) where bedrock refusal was previously encountered at 5.4 feet below ground surface (fbgs), 14 fbgs, and 15.6 fbgs, respectively. As overburden soil/fill conditions are known from previous sampling work at all three locations, no soil/fill sampling will be completed during the work.

Upon bedrock refusal, depending on Site conditions to allow for rock coring, the augers will either be sealed with hydrated bentonite chips at the overburden/bedrock interface or the augers will be removed, and a temporary casing will be installed and sealed with bentonite at

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top of rock. Rock coring activities will proceed until the first saturated zone (i.e., fractured zone) is encountered or a maximum depth of twenty (20) feet into bedrock, whichever occurs first. Rock cores will be advanced five feet into the first encountered groundwater. If no field evidence of groundwater is encountered within 20 feet of bedrock drilling, a field decision will be made by TurnKey, in consultation with the Department, as to whether a monitoring well will be installed. Potable water obtained from a known source will be used as the drilling fluid. Water return will be monitored during bedrock drilling.

Bedrock monitoring wells will be constructed of 2-inch I.D. flush-joint Schedule 40 PVC solid riser and machine slotted screen (0.010-inch slot size). The bedrock well bentonite chip seal will be installed and allowed to hydrate sufficiently to mitigate the potential for downhole grout contamination. Cement/bentonite grout will be installed via pressure tremie pipe injection to fill the remaining annulus to approximately one foot below ground surface. The newly installed monitoring wells will be completed with keyed-alike locks, a lockable J-plug, and a stickup road box.

Monitoring Well Development and Sampling Activities

After well installation activities, each well will be developed and sampled in accordance with the procedures identified in the approved RI Work Plan.

Regarding laboratory analyses, the four groundwater samples previously collected from the Site have been analyzed for volatile organic compounds (VOCs) plus tentatively identified compounds (TICs), semi-volatile organic compounds (SVOCs) plus TICs, dissolved Target Analyte List (TAL) metals, polychlorinated biphenyls (PCBs), herbicides and pesticides. As such, in accordance with the Work Plan, up to three groundwater samples will be analyzed for TCL plus CP-51 VOCs (plus 10 TICs), TCL SVOCs (plus 20 TICs) and dissolved TAL metals.

Groundwater samples will be analyzed in accordance with USEPA SW-846 methodology with an equivalent Category B deliverable package to meet the definitive-level data requirements. Analytical results will be evaluated by a third-party data validation expert.

General Scope of Work Discussion

We anticipate the supplemental investigation activities discussed above will take approximately three field days to complete. The Department will be notified prior to implementing the supplemental work.

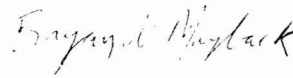
The results of the supplemental investigation activities will be included in the RI/AA Report with the results from initial RI activities.

Please contact us if you have any questions or require additional information:

Sincerely,
The Benchmark and TurnKey Companies



Michael A. Lesakowski
Sr. Project Manager/Principal



Bryan Mayback
Sr. Project Scientist

Attachments: Figure

FIGURE 1

SUPPLEMENTAL INVESTIGATION PLAN

DATE: DECEMBER 2017
DRAFTED BY: CMC**FIGURE 3****REMEDIAL INVESTIGATION LOCATIONS**

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT
1827 FILLMORE AVENUE SITE
BUFFALO, NEW YORK
PREPARED FOR
1827 FILLMORE LLC



BENCHMARK
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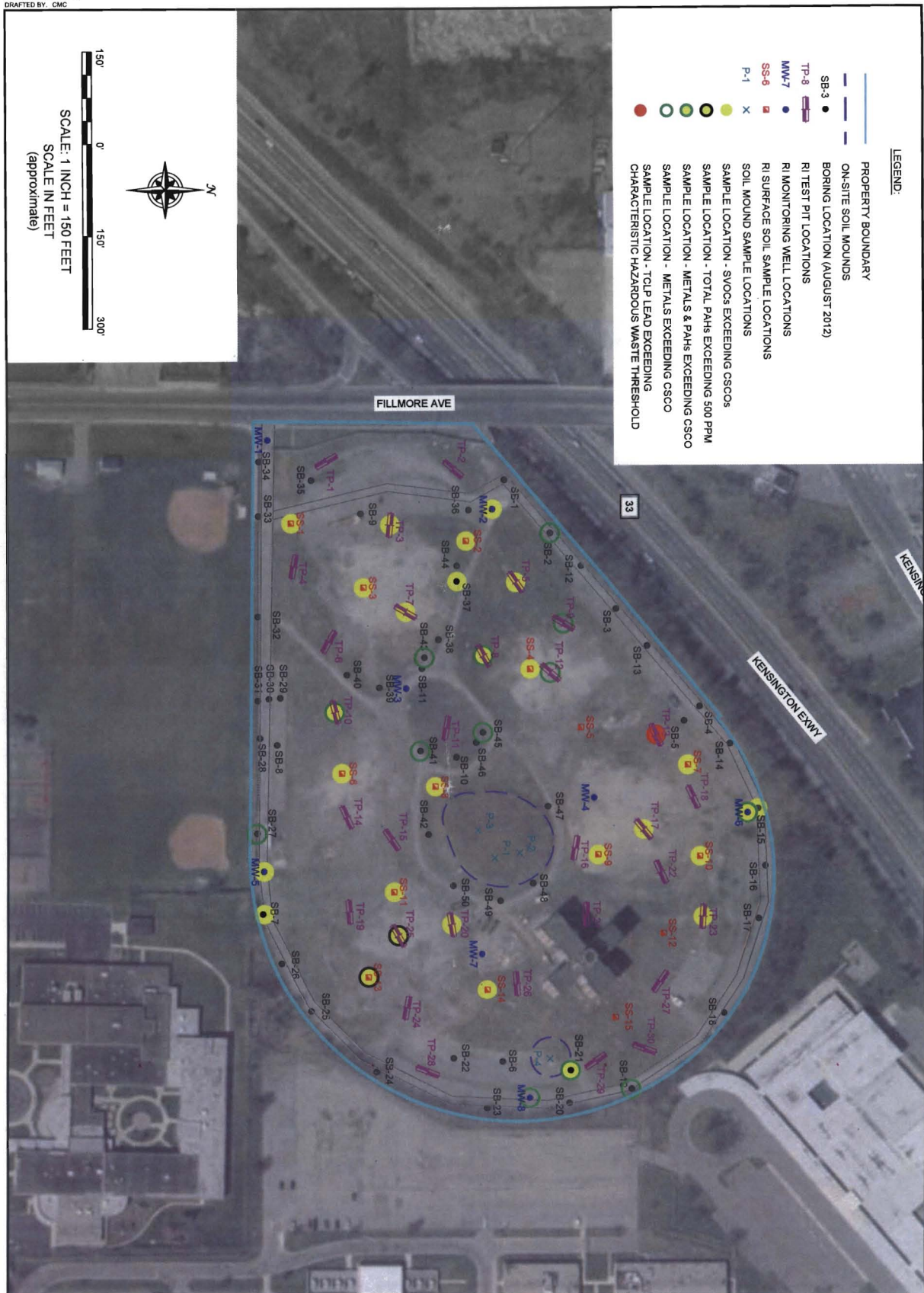


FIGURE 3

REMEDIAL INVESTIGATION LOCATIONS

REMEDIAL INVESTIGATION / ALTERNATIVE ANALYSIS REPORT

1827 FILLMORE AVENUE SITE

BUFFALO, NEW YORK

PREPARED FOR

1827 FILLMORE LLC



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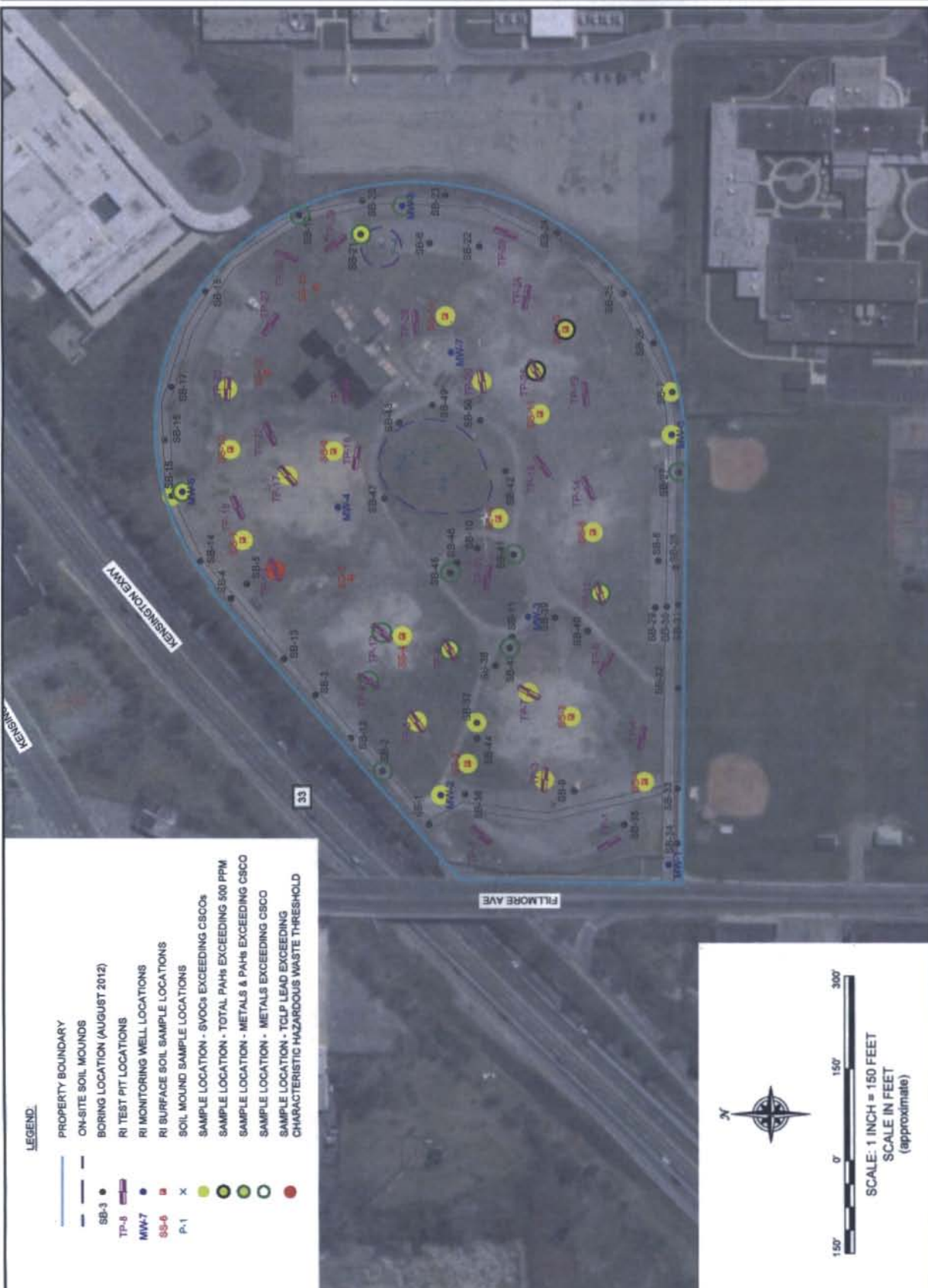
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FIGURE 3

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LEGEND

- PROPERTY BOUNDARY
- ON-SITE SOIL MOUNDS
- BORING LOCATION (AUGUST 2012)
- RI TEST PIT LOCATIONS
- RI MONITORING WELL LOCATIONS
- RI SURFACE SOIL SAMPLE LOCATIONS
- SOIL MOUND SAMPLE LOCATIONS
- SAMPLE LOCATION - SVOCs EXCEEDING CSCOs
- SAMPLE LOCATION - TOTAL PAHs EXCEEDING 500 PPM
- SAMPLE LOCATION - METALS & PAHs EXCEEDING CSCO
- SAMPLE LOCATION - METALS EXCEEDING CSCO
- SAMPLE LOCATION - TCLP LEAD EXCEEDING CHARACTERISTIC HAZARDOUS WASTE THRESHOLD



LEGEND:

- PROPERTY BOUNDARY
- - - ON-SITE SOIL MOUNDS
- SB-3 ● BORING LOCATION (AUGUST 2012)
- TP-8 ■ RI TEST PIT LOCATIONS
- MW-7 ● RI MONITORING WELL LOCATIONS
- SS-6 ■ RI SURFACE SOIL SAMPLE LOCATIONS
- P-1 x SOIL MOUND SAMPLE LOCATIONS
- SAMPLE LOCATION - SVOCs EXCEEDING CSCOs
- SAMPLE LOCATION - TOTAL PAHs EXCEEDING 500 PPM
- SAMPLE LOCATION - METALS & PAHs EXCEEDING CSCO
- SAMPLE LOCATION - METALS EXCEEDING CSCO
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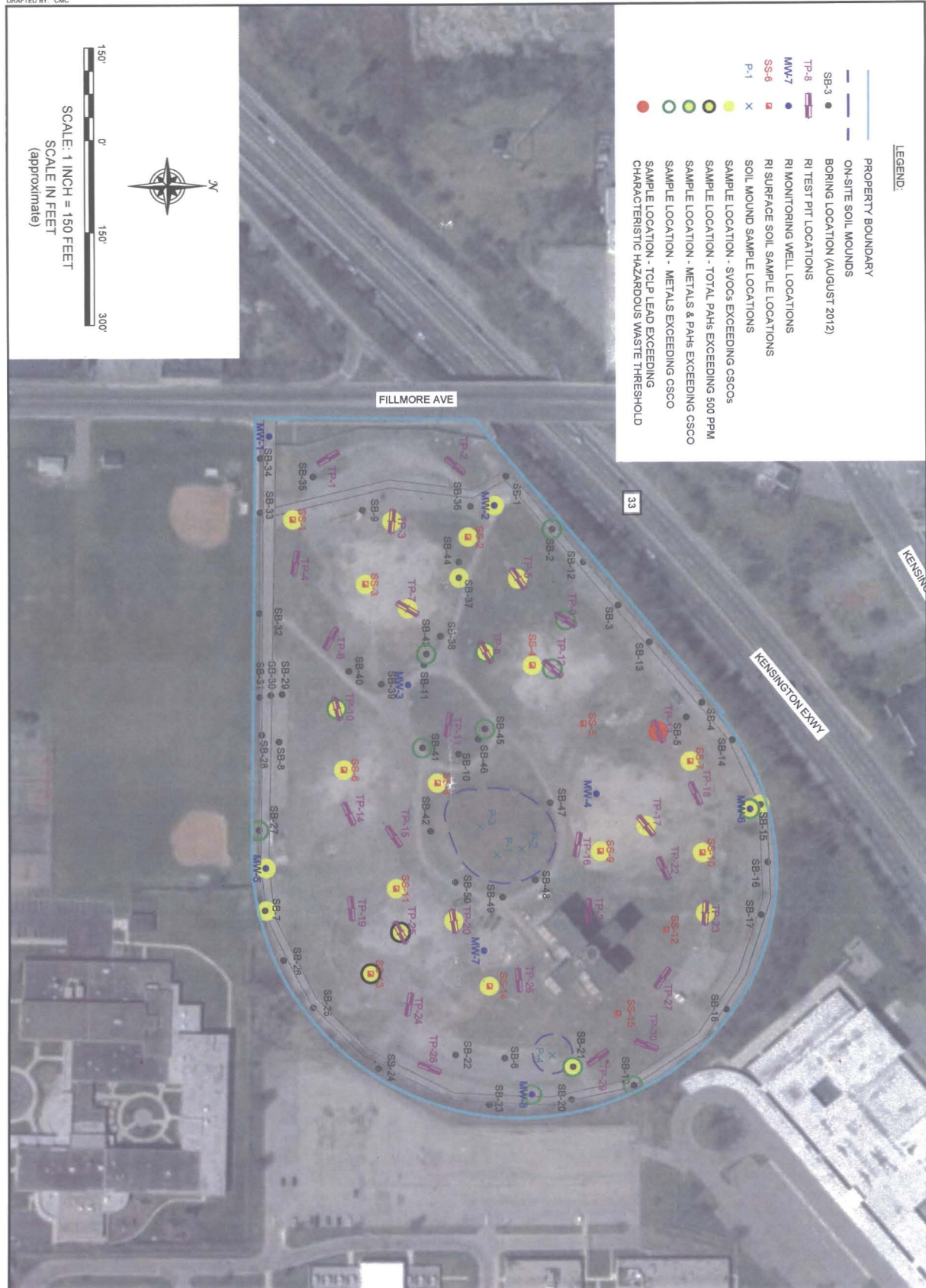
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FIGURE 3

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