FRAP Release Delineation Plan

Ford Motor Company

September 12, 2021

→ The Power of Commitment

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1. Introduction

GHD is currently performing monitoring and delineation work related to a gasoline release at the Flat Rock Assembly Plant (FRAP) located at 1 International Dr, Flat Rock, MI 48134 (Site). This FRAP Release Delineation Work Plan (Work Plan) has been developed to outline proposed additional investigation of the Site for the purpose of delineating potential environmental impacts. Proposed additional investigation includes collection of soil gas and soil boring data, as well as additional investigation of the storm water and sanitary sewer systems.

A Site location map depicting the proposed area of soil gas investigation is included as **Figure 1.** Proposed air knifing and soil boring locations are presented on **Figure 2**.

2. Soil Gas Investigation

To date, soil borings have been advanced near a utility corridor on the west side of the Site to preliminarily assess soil conditions adjacent to an underground storage tank (UST) and associated piping, a stormwater sewer, and a sanitary sewer.

To further assess soil conditions in the area, soil gas screening will be conducted on approximately a 50-foot grid throughout the area identified on **Figure 1**.

2.1 Soil Gas Collection Methodology

Sub-slab screening will be completed by drilling a 5/8-inch borehole through the asphalt or concrete slabs and at least 6 inches into the underlying soil to form a void. Upon completion of the borehole, a temporary Vapor Pin® incased in a silicone sleeve will be installed at the location and a vacuum test will be performed to ensure that the sampling point is able to withdraw vapor without obtaining a vacuum. The vacuum test will be performed by connecting a 50-cubic centimeter (cc) syringe and pulling back to ensure proper flow. If a vacuum is present such that the syringe cannot be withdrawn, the sampling point will be abandoned, and a new location will be installed. Following the vacuum test, a photoionization detector (PID) will be connected to the Vapor Pin® and readings will be collected at each screening location to provide an understanding of sub-slab total volatile organic compound (VOC) concentrations. This will be repeated throughout the identified area to generate sub-slab vapor isoconcentration contours to help direct investigative efforts to identified hot spots. The extent of screening will proceed until PID results indicates background conditions, with an objective to delineate any identified impacts. The actual area of screening may be larger or smaller than the area depicted on **Figure 1**. Upon completion of soil gas screening, vapor pins will be removed, void filled, and surface will be restored to match existing grade.

3. Soil Boring Investigation

Following completion of the soil gas investigation, soil borings will be advanced for areas in which impacts were identified during the soil gas investigation or areas along the path of the storm and sanitary sewer lines. Planned work includes placing paired air knife borings with soil borings, advanced with a Direct Push Technology (DPT) drill rig, along the utility corridor, including the UST and associated piping, and adjacent to the storm water and sanitary sewer lines (see **Figure 2**). Soils will be advanced to approximately 10 feet below ground surface (bgs). Upon collection, soil samples will be logged, and classified using the Unified Soil Classification System (USCS) and analyzed for totals VOCs using a PID. Borings will be advanced approximately every 50 linear feet along the path of the storm water and sanitary sewer lines. If groundwater is encountered at any location, a permanent 2” monitoring well will be installed and sampled at the time of installation for the observation of groundwater conditions; groundwater monitoring would be continued as necessary. If impacts are observed, additional, or step out, borings will be advanced to further assess

and delineate the area. The extent of investigation will proceed until field evidence, PID results and visual and olfactory observations, indicate background conditions with an objective to delineate any identified impacts.

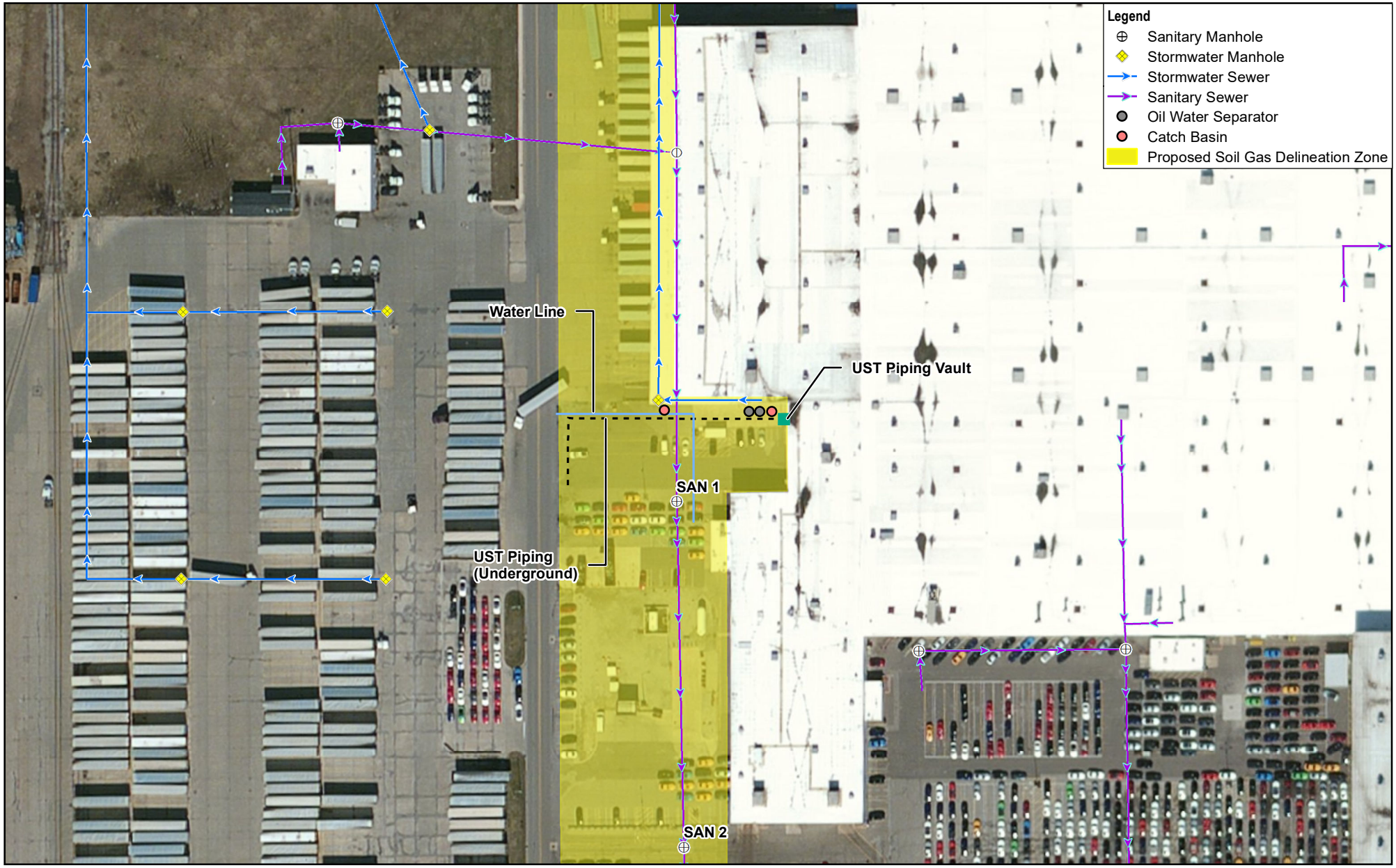
4. Additional Sewer Investigation

CCTV video and jetting activities have been conducted for the sanitary sewers located within FRAP and the surrounding community. Additional monitoring and jetting have been completed within the sewers for areas in which air monitoring identified impacts. Delineation of any releases to off-Site sanitary lines currently is ongoing.

To further assess the locations where gasoline related impacts may be entering the storm water and sanitary sewer systems with the Site, dye testing study of these systems will be performed by a GHD subcontractor. GHD has filed and received approval on its Notice of Intent (NOI), submitted to the Department of Environment Great Lakes and Energy (EGLE). The dye testing study is being performed within the on-Site storm and sanitary sewer system; no dye is anticipated to leave the Site as it will be captured via an on-Site detention basins/ponds.

5. Reporting

Sampling data will be collected, compiled, and assessed in accordance with applicable guidelines. The manually-collected monitoring/sampling data will be entered into an electronic database (spreadsheet or equivalent), and it will undergo a quality assurance and quality control (QA/QC) review. Data entry forms and field notes will be kept on-Site and retained for reference upon completion of the project. To make decisions in a timely manner, data will be shared with site representatives, applicable property owners, stakeholders, and government agencies as soon as it becomes available and following quality review



Paper Size ANSI A

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Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane Michigan South FIPS 2113 Feet

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FLAT ROCK, MICHIGAN

Project No. **12561538**
Revision No. **-**
Date **9/9/2021**

SOIL GAS DELINEATION MAP

FIGURE 1

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Print date: 09 Sep 2021 - 18:16

Data source: UAV Imagery captured on-site by GHD. BaseMap: Google (2021). Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

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SOIL DELINEATION MAP

FIGURE 2

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Print date: 09 Sep 2021 - 18:14

Data source: UAV Imagery captured on-site by GHD. BaseMap: Google (2021). Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.


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