

HSI SITE NO. 10882, WF TAYLOR
209 CROWNE LAKE DR SE DALTON, GA 30721

MONITORING & MAINTENANCE PLAN

October 12, 2023

Reference File: 680002

Prepared for:
W. F. TAYLOR, LLC
209 Crown Lake Drive
Dalton, Georgia 30721

Prepared by:
ENVIRONMENTAL INTERNATIONAL CORPORATION
161 Kimball Bridge Road, Suite 100, Alpharetta, GA 30009, USA
Phone 770.772.7100 • Fax 770.772.0555
<http://www.eicusa.com>

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1.0 INTRODUCTION

1.1 BACKGROUND

W.F. Taylor, LLC (Taylor) is at 209 Crown Lake Drive in Dalton, Whitfield County, Georgia. The property is a 3.18-acre land tract in a primarily industrially zoned area of south Dalton. The property consists of administrative buildings, warehouses, manufacturing, rail spur, paved and unpaved areas used for employee and truck trailer parking, and the storage of empty chemical totes and other supplies. Figure 1-1 depicts the site layout.

An Environmental Site Assessment (ESA) performed in 2007 led to the discovery of volatile organic compounds (VOCs) at the site. Although the actual source(s) contributory to the soil and groundwater impacts remained undefined, Taylor submitted a Hazardous Site Response Act (HSRA) notification to the Georgia Environmental Protection Division (EPD) in September 2007. On December 18, 2007, EPD listed the site under the hazardous site inventory (HSI), designating the site as HSI Site No. 10882 (CDM, 2010).

In June 2010, EPD approved a corrective action plan (CAP) to address the VOC impact. The CAP established the Type 3 risk reduction standard (RRS) as a cleanup goal. The CAP specified soil excavation in the vadose zone and in-situ enhanced biological treatment (EAB) as remedies to treat the impacted soil and groundwater.

Following the CAP cleanup goals, Taylor retained Camp, Dresser & McKee Smith, Inc. (CDM) as a contractor to conduct excavations of impacted soils near the northern edge of the Taylor building in 2012 and 2013. CDM also conducted a groundwater treatment pilot test study. Subsequently, CDM installed several groundwater monitoring wells and numerous injection wells. CDM utilized selected injection wells to introduce sodium lactate into the subsurface from 2013 through 2017 (CDM, 2019).

After initiating the CAP activities, groundwater impacts remained persistent at the site for over a decade. In 2019, Taylor identified additional soil and groundwater contamination in a small area within the original VOC footprint. Consequently, Taylor retained Environmental International Corporation (EIC) to review the site background data and remedial progress.

On March 10, 2021, EIC scheduled a stakeholder meeting between EPD and Taylor. During the meeting, EIC provided a summary of the state of the site to discuss the site conditions and proposed the EPD's voluntary remediation program (VRP) as a more practical and cost-effective strategy to address the residual soil and groundwater impacts. EPD concurred with EIC's findings and transitioned from a CAP-based remedy to a VRP-based remedy for the residual impairments.

On behalf of Taylor, EIC prepared a voluntary investigation and remediation plan (VIRP) application and submitted it to the EPD on April 30, 2021. EPD approved the VIRP on December 22, 2021. Taylor has completed all relevant tasks outlined in the VIRP and will prepare a Compliance Status Report (CSR) proposing Type 5 RRS as a final remedy that entails implantation of a Uniform Environmental Covenant (UEC) to address the prevailing site risks.

1.2 PURPOSE

As a condition of UEC approval, EPD required the preparation of this Monitoring and Maintenance Plan (MMP) consistent with the requirement of the VRP Act. The MMP aims to establish procedures for monitoring and maintaining institutional and engineering controls described in the UEC.

The MMP will be effective until EPD determines that the groundwater complies with Type 1, 2, 3, or 4 RRS, as defined in Georgia Rules for Hazardous Site Response (Rules), Chapter 391-3-19. Taylor can then petition for the termination or amendment of the UEC. Upon EPD's concurrence, the deed restrictions will then be removed, and the covenants will no longer apply to this site.



2.0 CONTROL MEASURES

The MMP covers both institutional and engineering controls for the site. The following sections discuss the specific control measures in place at the site.

2.1 INSTITUTIONAL CONTROLS

Institutional controls are a valuable preventative method of reducing the potential exposure of site personnel and visitors to underlying COCs at the site by implementing property use or access restrictions. As such, institutional controls shall be the primary method of limiting COC exposure at the site. The following subsections discuss the institutional control measures to be utilized at the site.

2.1.1 PROPERTY USE LIMITATIONS

The site shall be used only for non-residential purposes, as defined in Section 391-3-19-.02 of the Georgia Hazardous Site Response Act (HSRA) rules, as of the effective date of the UEC (OCGA, 2015). Any residential use of the site shall be prohibited unless approved in advance by the director of the EPD. Additionally, plans to construct enclosed buildings designed for continuous human occupancy will require a vapor intrusion study to evaluate potential COC exposure.

2.1.2 GROUNDWATER USE RESTRICTIONS

Any use of groundwater from the site is prohibited under the UEC. Annual inspections will confirm that groundwater from the site is not being extracted or utilized without EPD approval. Use of groundwater refers to all extraction methods that include but are not limited to, irrigation, cooling, fire suppression, and drinking water. The extraction of the groundwater for the use of characterization purposes (i.e. due diligence, corrective action, etc) is permitted.

The primary constituents of concern (COCs) established in the VIRP for groundwater are chlorinated volatile organic compounds (CVOCs). These COCs include trichloroethylene (TCE), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethylene (1,1-DCE), cis-1,2-dichloroethylene (1,2-DCE), and

vinyl chloride (VC). Figure 2-1 illustrates the residual COC footprint in groundwater based on the January 2023 sampling event.

2.2 ENGINEERING CONTROLS

Due to the restricted use zone (RUZ) being a potential exposure pathway Taylor backfilled the area with certified clean soil and then covered the area with pavement as a form of an engineering control to prevent COC exposure. A map of RUZ is shown in Figure 2-2.

Any activity at the site that may result in exposure to or create new exposure pathways for the COCs, is prohibited. Any land disturbance activities or other intrusive work that affects Area of Concern-3 (AOC-3) designated as RUZ, must be conducted in accordance with this plan. Intrusive activities include, but are not limited to, drilling; digging/excavating; placement of any objects or use of any equipment which deforms or stresses the surface beyond its load-bearing capacity; piercing the surface with a rod, spike, or similar item; bulldozing; or any earthwork in general. Upon the approval of this MMP and the UEC for the property, Taylor will install a conspicuous monument adjacent to the paved area near the RUZ which will state the following:

Restricted Area
Subject to Environmental Covenant
Call the property owner or the Georgia Environmental
Protection Division prior to digging or
commencing any land disturbing activity.

Before implementation, all intrusive activities must be evaluated by an environmentally qualified Taylor employee or their contractor to determine applicable health and safety requirements and waste management and disposal requirements. While conducting intrusive activities, appropriate personal protective equipment (PPE) will be utilized per a site health and safety plan (HASP). At a minimum, air monitoring for VOCs shall be conducted with a calibrated organic vapor analyzer (OVA), and all field work shall be performed within appropriate Occupational Health and Safety Administration (OSHA) exposure levels. Table 2-1 lists OSHA permissible exposure limits (PELs) for the primary COCs.

During the implementation of potential intrusive activities, any ground cover, soil, or other subsurface materials that were exposed to groundwater within the RUZ, will be adequately characterized and appropriately managed onsite. Any waste material requiring offsite transfer and disposal will be transported to an approved certified disposal facility with prior approval from Taylor personnel.

Any excavations performed within the RUZ will be backfilled with certified clean soil or fill material. The ground surface will be restored with a material compatible with the protective surface cover.



3.0 PLANNED USES OF THE PROPERTY

Taylor currently uses the site as a manufacturing facility. In accordance with the Environmental Covenant, the site's primary use does not and will not include residential use. An annual inspection will verify the use of the site by the owners to be consistent with a non-residential use. In addition, all lease agreements and other agreements concerning the use of the site will be reviewed to ensure the language is consistent with the non-residential use of the site.

Advance written notice to EPD will be provided for any planned future changes in the use of the site that will significantly change the conditions of the protective surface cover or otherwise significantly impact the institutional or engineering controls discussed in Section 2.0.

4.0 REPORTING

The site property owner shall complete and submit to EPD an annual report by January 30 of each year, which will include at a minimum:

- A certification of non-residential use of the property;
- Documentation stating whether or not the activity and use limitations in the UEC are being abided by;
- All forms, logs, and other paperwork related to inspections and maintenance of engineering and institutional controls; (a blank copy of the annual inspection form is included as Attachment 4-1)
- Details of activities associated with the property, which may potentially affect the engineering or institutional controls set in place; and
- Documentation and an evaluation of the status of engineering controls effectiveness in preventing COC exposure;

The cover letter for the annual report will include the name, mailing address, telephone number, facsimile number, and e-mail of the person that EPD should contact regarding the requirements associated with the property. A qualified P.E. or P.G. will certify the annual report.

5.0 REFERENCES

Camp, Dresser & McKee Inc. (CDM), 2010. Corrective Action Plan. W.F. Taylor Company, Inc. 3601 South Dixie Road Dalton, Whitfield County, Georgia HSI Number 10882. Dalton, Georgia. June 18, 2010.

CDM, 2019. 2019 Annual Corrective Action Report. W.F. Taylor Company, Inc. (HSI 10882). Dalton, Georgia. December 30, 2019.

Official Code of Georgia Annotated (OCGA), 2015. *The Georgia Hazardous Site Response Act (HSRA)* – OCGA §12-8-90 *et seq.* Title 12, Chapter 8, Article 3, Part 2, 2015.

TABLES

Table 2-1: COC Toxicity Information

No.	Chemical Identification		Source		Control Measures			Exposure Limits	
	Chemical Name	CAS Number	Soil	Groundwater	Engineering Controls	Exposure Monitoring	PPE	OSHA PEL and NIOSH REL (ppm)*	IDLH (ppm)
1	Trichloroethylene (TCE)	79-01-6	NA	X	X	X	X	NIOSH 25* ² OSHA 100	Ca, 1000
2	1,1-Dichloroethane	75-34-3	NA	X	X	X	X	100	3000
3	1,1-Dichloroethene	75-35-4	NA	X	X	X	X	Not Established	Ca, Not Established
4	cis-1,2-Dichloroethylene	540-59-0	NA	X	X	X	X	200	1000
5	Vinyl Chloride	75-01-4	NA	X	X	X	X	1	Ca, Not Established

Notes:

Table was derived from information provided in NIOSH Pocket Guide to Chemical Hazards (NIOSH, 2007)

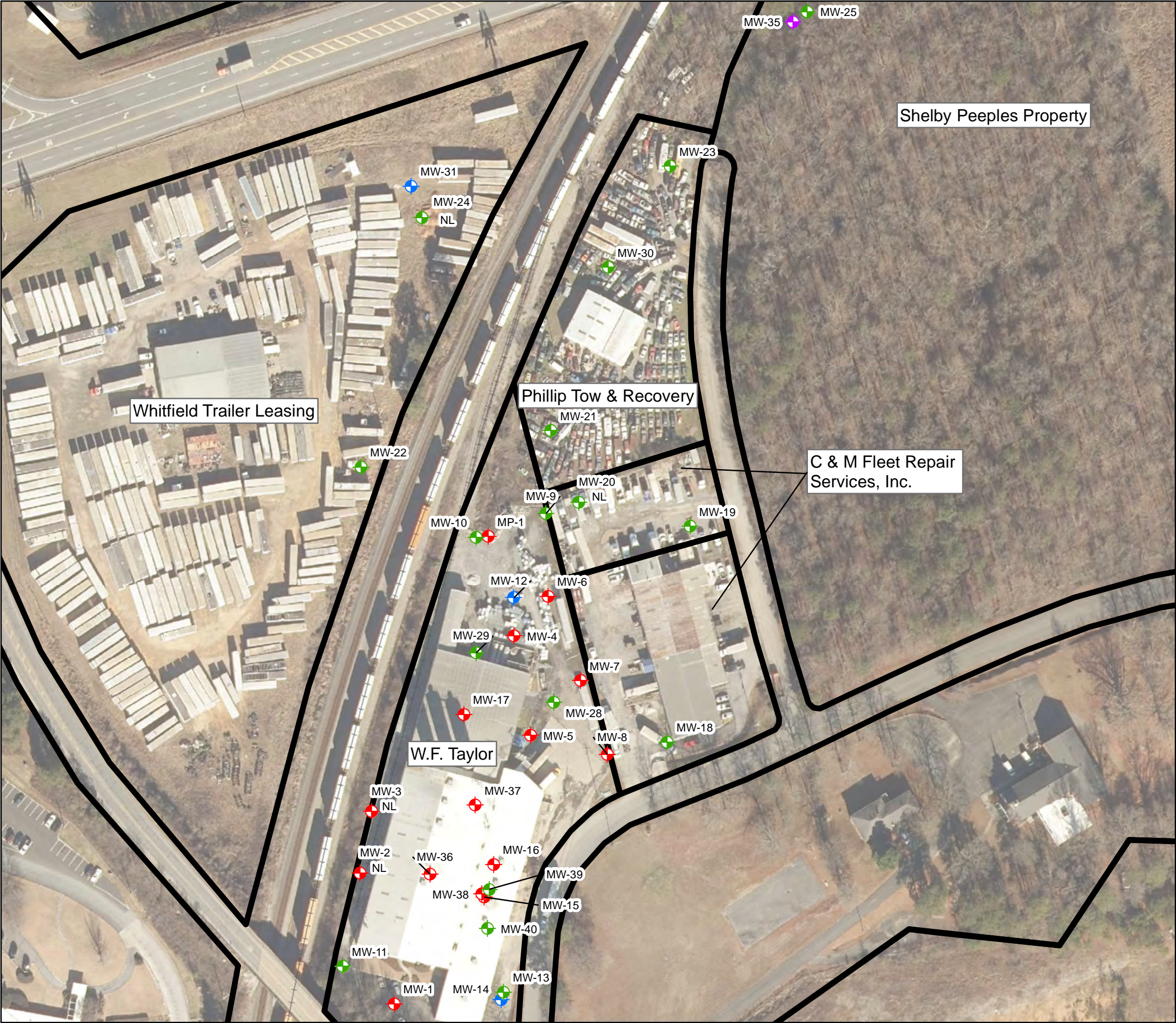
* = unless otherwise stated OSHA PEL and NIOSH REL are the same

Ca = denotes potential occupational carcinogens

*² - NIOSH considers trichloroethylene (TCE) to be a potential occupational carcinogen and recommends a REL of 2 ppm (as a 60-minute ceiling) during the use of TCE as an anesthetic agent, and 25 ppm (as a 10--hour TWA) during all other exposures.

FIGURES





Legend

- Parcel Boundaries
- Upper Residuum Well
- Lower Residuum Well
- Bedrock Level 1 Well
- Bedrock Level 2 Well

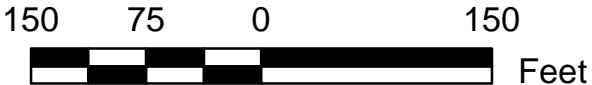
NOTES: AERIAL PHOTO IS FROM WHITFIELD COUNTY GIS DATABASE OBTAINED IN APRIL 2022. WELL LOCATIONS ARE BASED ON A SURVEY CONDUCTED IN APRIL 2022. THE SURVEY WAS CONDUCTED BY LAND SURVEYORS AND CONSULTANTS, LLC UNDER CONTRACT WITH EIC.

AS WELLS MW-2, MW-3, MW-20, AND MW-24 COULD NOT BE LOCATED, THEIR LOCATIONS ARE APPROXIMATED BASED ON PREVIOUS WELL LOCATIONS MAPS PREPARED FOR THE SITE, AS NO SURVEY DATA WAS AVAILABLE FOR THESE WELL LOCATIONS.

THE UPPER/LOWER RESIDUUM AND THE BEDROCK LEVELS 1 AND 2 DESIGNATIONS THAT INDICATE THE DEPTHS AND LITHOLOGY AT THE SCREEN INTERVAL WERE ASSIGNED IN THE HISTORICAL REPORTS. EIC HAS MAINTAINED THESE DESIGNATIONS THROUOUT THE VRP TO BE CONSISTENT WITH THESE HISTORICAL REPORTS.

MW-26, MW-34, AND INJECTION WELLS ARE NOT SHOWN ON THIS MAP.

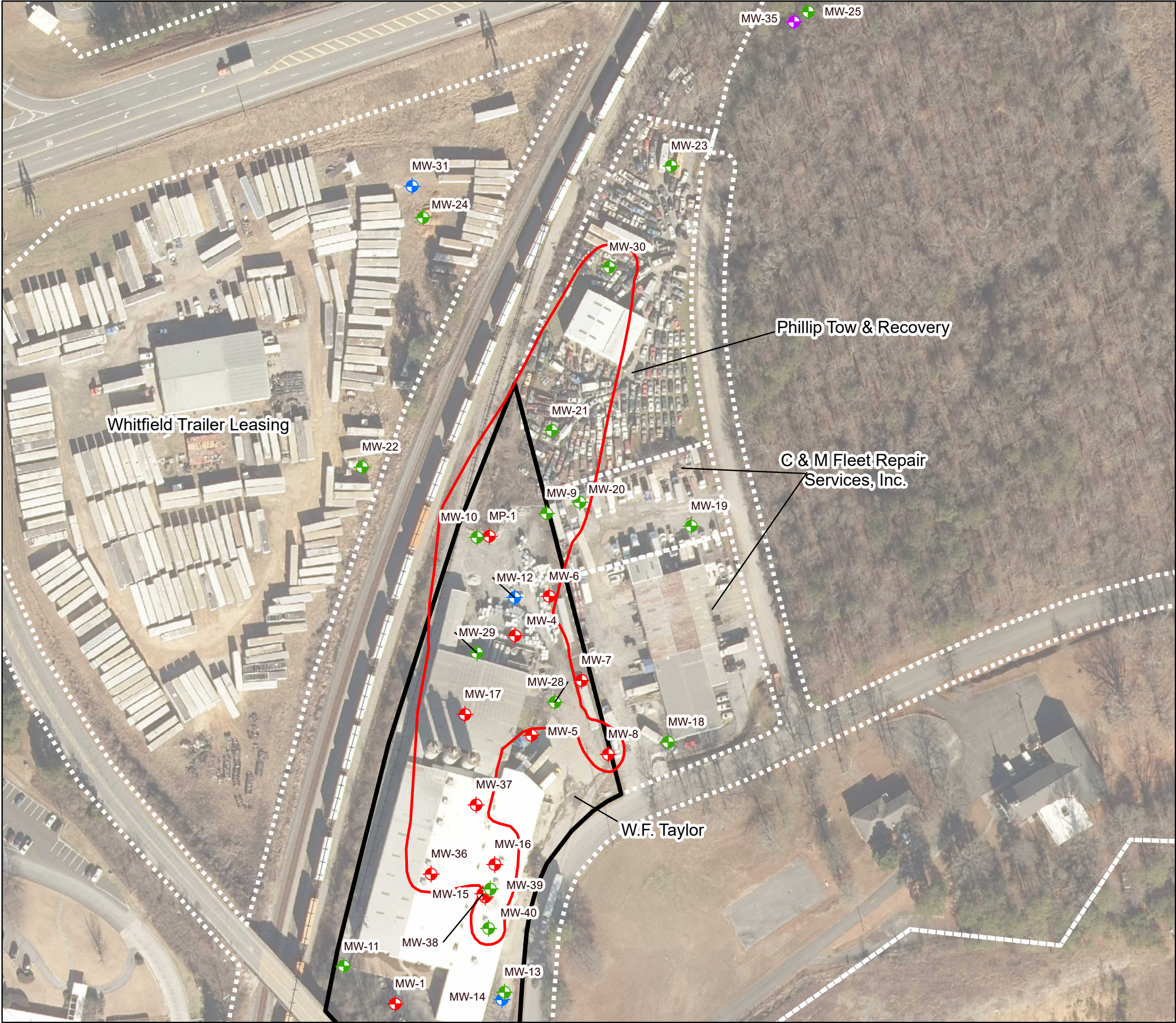
NL - NOT LOCATED



ENGINEERING FIRM:
ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD., STE 100
ALPHARETTA, GEORGIA 30009

CLIENT:
W.F. TAYLOR
209 CROWN LAKE DR., SE
DALTON, GEORGIA 30721

FIGURE 1-1: SITE LAYOUT MAP



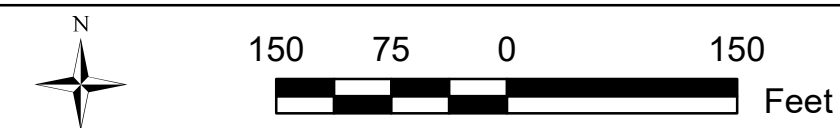
Legend


- Upper Residuum Well
- Lower Residuum Well
- Bedrock Level 1 Well
- Bedrock Level 2 Well
- COC Footprint
- Parcel Boundaries
- W.F. Taylor Parcel Boundary
- MW-1 Well Label

NOTES: AERIAL PHOTO IS FROM WHITFIELD COUNTY GIS DATABASE OBTAINED IN APRIL 2022. WELL LOCATIONS ARE BASED ON A SURVEY CONDUCTED IN APRIL 2022. THE SURVEY WAS CONDUCTED BY LAND SURVEYORS AND CONSULTANTS, LLC UNDER CONTRACT WITH EIC.

COC FOOTPRINT DERIVED FROM GROUNDWATER SAMPLING CONDUCTED IN JANUARY 2023 BY EIC.

COC - CONSTITUENTS OF CONCERN





ENGINEERING FIRM:

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD., STE 100
ALPHARETTA, GEORGIA 30009

CLIENT:

W.F. TAYLOR
209 CROWN LAKE DR., SE
DALTON, GEORGIA 30721

FIGURE 2-1: JANUARY 2023 GROUNDWATER RESIDUAL COC FOOTPRINT MAP

ATTACHMENT 4-1
ANNUAL INSPECTION REPORT
FORM

Evaluator(s) Initials: _____

Date: _____

Annual Inspection Report Form

Site Location: WF TAYLOR 209 CROWNE LAKE DR SE DALTON, GA 30721

Name of Evaluator(s): _____

Signature(s): _____

Date of Evaluation: _____

The following evaluation form is for the purpose of evaluating site conditions as they pertain to the environmental covenant set in place at the site. Additional information such as photos, figures, or tables, can be attached to this form as needed.

Section 1: Land Use

1. Does the Property meet the definition of non-residential property as defined in HSRA Rule 391-3-19-.02(2)?

Circle one (Yes , No)

"Non-residential property means any property or portion of a property not currently being used for human habitation or for other purposes with similar potential for human exposure, at which activities have been or are being conducted that can be categorized in one of the 1987 Standard Industrial Classification major group..."

If not, provide a written explanation below.

2. Has the use of the property changed or has construction occurred on the property?

Circle one (Yes , No)

If yes, provide an explanation below.

Annual Inspection Report Form

Section 3: Property Instruments and Permanent Monuments

5. Do all leases or other property instruments for the site have the applicable deed notice language inserted into them? (i.e. HSRA Rule 391-3-19-.08 and O.C.G.A. 44.5-48)

Circle one (Yes , No)

If not, provide a written explanation below.

6. Are permanent markers in place at the site to provide notice that the site is subject to an environmental covenant and that the GA EPD or property owner should be contacted prior to digging or performing land disturbing activities?

Circle one (Yes , No)

If not, provide a written explanation below.

Inspect the following elements and determine their condition.

Item	Condition				
	Poor	Fair	Acceptable	Good	Excellent
Monument <i>(should be visible, legible, and in a conspicuous location; void of surrounding tall vegetation; not deformed, cracked, or otherwise broken.)</i>					
Surrounding Area <i>(should be neatly landscaped if in grass area, if in paved area, pavement should be level and without cracks or other holes)</i>					

Annual Inspection Report Form

Section 4: Exposure Control

7. Overall, have there been any significant changes to the condition of the ground surface/cover at AOC-3 since the previous evaluation? (e.g. more or less paved area; leveling or construction activities)

Circle one (Yes , No)

If yes, provide a detailed description of the changes and include photographs or illustrations of the changes as needed.

Section 5: Additional Notes

8. Provide any additional notes regarding relevant conditions at AOC-3 not addressed above, which may adversely impact the effectiveness of engineering controls or exposure prevention.
