

**MONITORING AND  
MAINTENANCE PLAN  
FOR TYPE 5  
RISK REDUCTION STANDARDS**

**TAX PARCEL ID NO. 16-0899-000-10 (Tract  
2 and Tract 3)**

**Cobb County, Georgia**

**November 6, 2013**

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## **1.0      INTRODUCTION**

Tax Parcel No. 16-0899-000-10 (Tract 2 and Tract 3) (collectively, the "Property") will be remediated using engineering and institutional controls. The engineering controls include installation of an asphalt and/or concrete cap on Tract 3. The asphalt and/or concrete cap will be designed to address remaining contaminated soils at the Property. The institutional controls implemented will be an Environmental Covenant that includes this Monitoring and Maintenance (M&M) Plan.

This M&M plan contains five (5) sections and two (2) appendices. Section 2.0 describes the monitoring and control systems. Section 3.0 contains the maintenance and inspection plan. Section 4.0 describes land use of the Property. Reporting is presented in Section 5.0. The appendices are as follows: Appendix A contains a figure; and Appendix B contains forms.

## **2.0      ENGINEERING CONTROLS**

### **2.1      Asphalt and/or Concrete Cap**

The cap consists of a three (3) inch deep asphalt and/or concrete cap, which initially will extend across Tract 3 (see figure in Appendix A). The permanent cap will cover all remaining contaminated soil on Tract 3.

## **3.0      MAINTENANCE AND INSPECTION PLANS**

This section of the M&M plan describes the methods, procedures, and processes that must be used to inspect and maintain the engineering controls of the Property. Use of the Property must not damage the integrity of the asphalt and/or concrete cap. When intrusive activities are required, the extracted, impacted soil should be managed in accordance with all applicable local, state and federal rules and regulations governing the management of such material. Contaminated excavated soil in this area should not be placed back into the excavation, but be properly characterized for disposal and transported and disposed of at an appropriate disposal facility. Soil from the top ten (10) feet bgs ("surficial soil") may be reused if segregated from the deeper contaminated soil. The excavation should be backfilled with clean surficial soil or fill material and recapped with an impervious surface. Recapping of the area of excavation would not be necessary if all the impacted soil in the excavation area is removed to below applicable HSRA residential RRS to the water table for the regulated chemicals of concern. Intrusive activities must be performed by personnel with appropriate HAZWOPER training per OSHA's Hazardous Waste Operations and Emergency Response Standard 29 CFR 1910.120, and perform the work in accordance with a Health and Safety Plan prepared by a qualified safety professional. Maintenance and inspection of the Property must be performed by person(s) experienced in the maintenance and inspection of the engineering controls at the Property through both professional training and educational experience sufficient to evaluate the condition of the Property as it relates to the requirements set forth below. Minimum experience requires the inspector be a Georgia certified Professional Engineer or Professional Geologist.

Maintenance and inspection activity documentation includes the M&M Inspection Log form and Maintenance Record form, and the Land Use Certification form. Inspection logs include the date of the inspection, name of the inspector(s), component inspected, weather conditions, condition of the item inspected, notation of any damages requiring attention and indicate if the noted damage would be classified as Major Damage, as that term is defined below in Section 3.1, 3.2 and 3.3. A copy of the M&M Inspection Log form is in Appendix B. Maintenance records include the dates

repairs were initiated and completed, and the name of the person recording the information. Comments describing the severity of the damage (i.e.: major) must also be noted on the maintenance record along with a description of the repairs. A copy of the Maintenance Record and Land Use Certification forms are in Appendix B.

### **3.1 Asphalt and/or Concrete Cap**

It is necessary to maintain the integrity and effectiveness of the asphalt and/or concrete cap to avoid cracks extending through the depth of the asphalt and/or concrete cap; and or failure of coal tar emulsion asphalt seal such that surface water comes in contact with contaminated soil ("Major Damage"), including making repairs as necessary. The asphalt and/or concrete cap must be inspected every year. The inspection must evaluate the asphalt and/or concrete cap to ensure adequate quantity and quality of the asphalt and/or concrete cap to correct excessive settling and other events and to minimize the likelihood of run on and run off causing material surface water infiltration. Positive drainage must be maintained across the asphalt and/or concrete cap to prevent ponding. The results of the inspection must be recorded on the M&M Inspection Log form in Appendix B. All maintenance of the concrete cap must be documented in a logbook and on Maintenance Record forms. If Major Damage is noted, repairs must be completed within sixty (60) days of discovery. All other items requiring repair must be completed within ninety (90) days of discovery. Repairs must be made in accordance with the good engineering practices and must be conducted by qualified personnel.

### **3.2 Granite Markers**

The Environmental Covenant mandates that the Property be fitted with markers identifying the Property as a "restricted area". Granite markers are to be placed in the locations shown on the attached figure in Appendix A. The structural integrity of the markers must be maintained to avoid crushed, broken, or defaced markers making markers unreadable; markers removed from any corner of the Property boundary; and/or damage to asphalt or concrete, such that the marker can be removed ("Major Damage"). The granite markers are to be inspected every calendar year. The results of the inspection must be recorded on the M&M Inspection Log form in Appendix B. All maintenance of the granite markers must be documented in a logbook and on Maintenance Record forms. If Major Damage is noted, repairs must be completed within sixty (60) days of discovery. All other items requiring repair must be completed within ninety (90) days of discovery. Repairs must be made in accordance with good engineering practices and must be conducted by qualified personnel.

### **3.3 Groundwater Monitoring Wells**

The groundwater monitoring wells at the site (MW-4, MW-7, MW-13, MW-17D, MW-22 and MW-25) must be maintained and inspected annually in accordance with the requirements of the Environmental Covenant. All inspections of the monitoring well system must be documented in a logbook and will be recorded on the M&M Inspection Log form in Appendix B. Damage to the locks, wells, and well labels could result from vandalism or weathering. Any damage of the groundwater-monitoring network must be repaired. If locks have rusted and do not function properly, they must be replaced. All wells must remain securely locked.

The wells must be visually inspected for signs of grout or concrete stress or failure, and the watertight locking caps must be inspected for cracked or torn rubber seals. All maintenance of the monitoring well system must be documented in a logbook and on Maintenance Record forms.

The following conditions are considered major damage:

- Damaged well vault or vault cover
- Damaged well cap
- Damaged well casing inside well
- Erosion undermining concrete pad around well
- Damage or cracking of concrete pad around well

If major damage is noted, repairs must be completed within sixty (60) days of discovery. All other items requiring repair must be completed within ninety (90) days of discovery. Repairs must be made in accordance with good engineering practices and must be conducted by qualified personnel.

#### **4.0 PLANNED USES OF PROPERTY**

Any use of the Property must preserve the integrity and effectiveness of the cap. The Property shall only be used for non-residential purposes on the ground floor with residential use restricted to upper floors. The Property must be inspected annually with regard to the use of the Property. Use of the Property must remain non-residential on the ground floor unless a change in use is approved by the Director.

- The inspection must verify the use of the Property by owners, tenants, and other occupants to be consistent with non-residential use on the ground floor.
- All lease agreements, and other agreements concerning the use of the Property, including contracts and informal agreements, must be reviewed to ensure they are consistent with the non-residential use on the ground floor.

The results of the inspection must be summarized in a Property use statement. Any future changes in use of the Property that materially impacts the engineering controls must be approved by EPD in accordance with Paragraph 2 of the Environmental Covenant. The M&M Plan must be reviewed and revised as appropriate. If it is determined the M&M Plan must be revised, the revised M&M Plan will be submitted to EPD for review and approval within sixty (60) days of the change in use.

The asphalt and/or concrete cap will be designed to have a minimum of three (3) inches of asphalt and/or concrete cover. The cap shall be designed to minimize the infiltration of surface water into the contaminated soils that remain on the Property. The cap may be penetrated in order to perform work necessary to implement corrective action; perform additional remediation; install, maintain, repair or replace utilities, structures and engineering controls; or for any other reason approved by EPD. All such activities must be performed in a manner to minimize the release or exposure to the regulated substances under the cap, in accordance with this Monitoring and Maintenance Plan.

#### **5.0 REPORTING**

Should regulated substances be detected in the groundwater at MW-4 or MW-7 exceeding the approved Type 4 non-residential RRS, the Annual Groundwater Monitoring Report will include a schedule for verification sampling of the impacted well(s) and an evaluation of whether a release has occurred off-property. If a release off-property has occurred, a Corrective Action Plan will be submitted within 120 days of the determination that will describe the actions that will be completed to maintain or achieve compliance with the Type 4 RRS and to delineate the extent of the release.

## 5.1

A maintenance and inspection report that includes each inspection event, along with a cover letter, must be submitted to EPD annually by October 15. In the cover letter for the maintenance and inspection report, the name, mailing address, telephone number, facsimile number, and e-mail of the person EPD should contact regarding the requirements associated with the Property must be provided to EPD.

The maintenance and inspection report must include the following signed certifications:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate that information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

---

Authorized Signature

I certify that I am a qualified engineer or geologist who has received a baccalaureate or post-graduate degree in engineering, geology, or similar discipline, and have sufficient training and experience in designing and/or evaluating caps and installing and evaluating monitoring wells, as demonstrated by State registration and completion of accredited university courses, that enable me to make sound professional judgment regarding the effectiveness of engineering controls at this site. I also certify that this report meets the requirements set forth in the Monitoring and Maintenance Plan for the site. I further certify that this report was prepared by myself or by a subordinate working under my direction.

---

PE/PG Signature and Seal

## 5.2

A property use statement regarding compliance with the non-residential use on the ground floor must be submitted to EPD annually by October 15, with the annual maintenance and inspection report.

The property use statement must include the following signed certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate that information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant

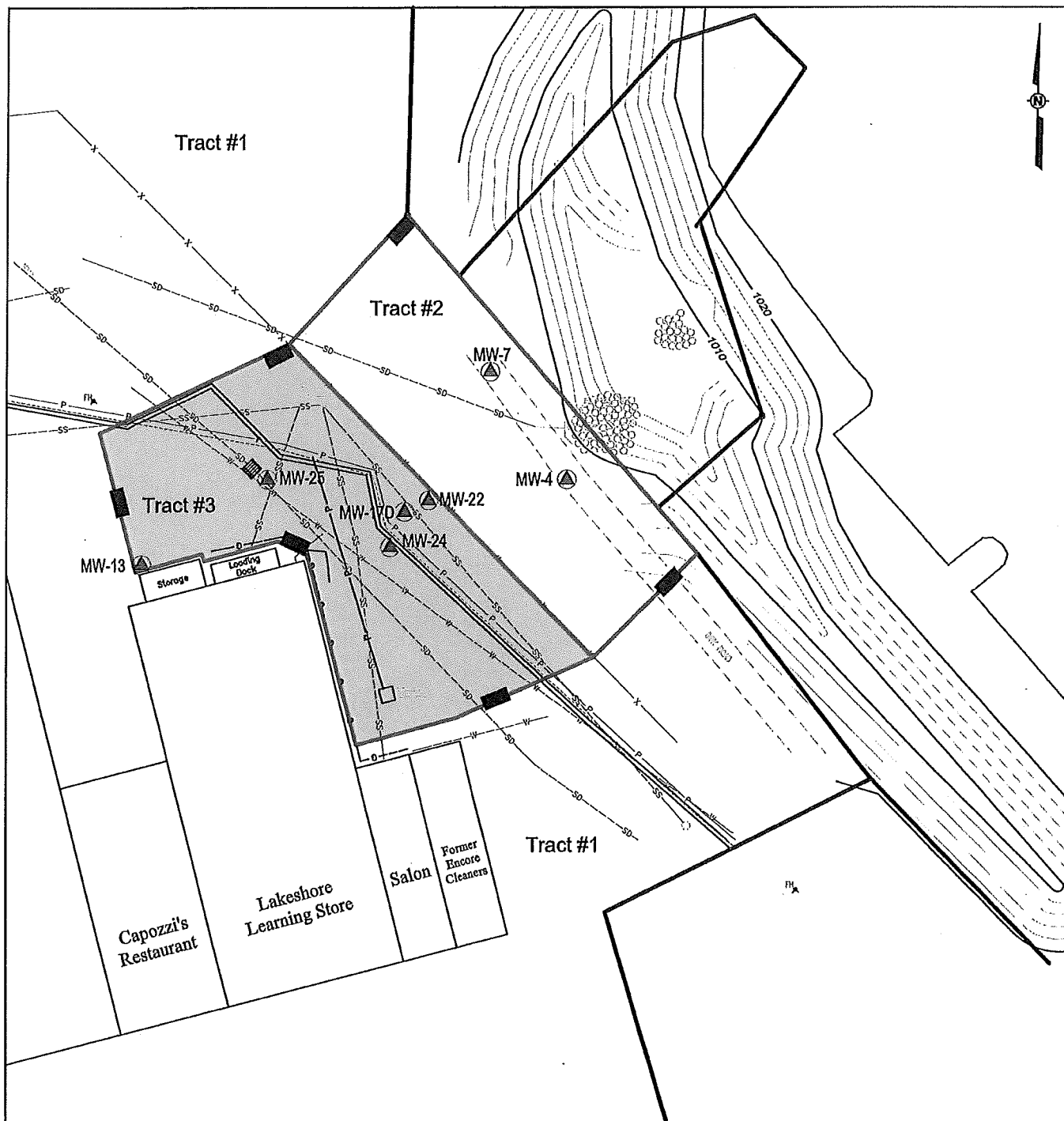
penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

---

Authorized Signature

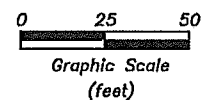
## APPENDIX A - FIGURE





# LEGEND

|  |                          |  |                   |
|--|--------------------------|--|-------------------|
|  | Monitoring Well Location |  | Sanitary Sewer    |
|  | Site Boundary            |  | Storm Drain Inlet |
|  | Other Parcel Boundary    |  | Waterline         |
|  | Asphaltic Cap            |  | Gasline           |
|  | Granite Marker           |  | Powerline         |
|  | Fenceline                |  | Gravel/Dirt Road  |
|  | Storm Sewer              |  | Communications    |



**EPS**

1050 Crown Pointe Parkway  
Suite 550  
Atlanta, GA 30338  
(404) 315-9113

Encore Dry Cleaners (Former) HSI Site #10530  
4281 Roswell Road (Parcels 2 & 3)  
Marietta, GA 30062

DATE: August 2013

REV: JDV

Asphaltic Cap Layout

FIGURE

1

## APPENDIX B- FORMS

TAX PARCEL ID # \_\_\_\_\_ (Tract 2) and  
TAX PARCEL ID # \_\_\_\_\_ (Tract 3)

MAINTENANCE RECORD FORM

Date: \_\_\_\_\_

Weather \_\_\_\_\_

Inspector(s) \_\_\_\_\_

| Component Inspected          | Repair Dates |           | Inspector | Description of Repairs | Check if Major Damage |
|------------------------------|--------------|-----------|-----------|------------------------|-----------------------|
|                              | Initiated    | Completed |           |                        |                       |
| Asphalt and/or Concrete Cap  |              |           |           |                        |                       |
| Granite Markers              |              |           |           |                        |                       |
| Groundwater Monitoring Wells |              |           |           |                        |                       |

**Comments:**

This Maintenance Record Form was prepared in accordance with the requirements and obligations in the Monitoring and Maintenance Plan for the Site.

\_\_\_\_\_  
(Name), PE/PG

TAX PARCEL ID # \_\_\_\_\_ (Tract 2) and  
TAX PARCEL ID # \_\_\_\_\_ (Tract 3)

M&M INSPECTION LOG

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Weather \_\_\_\_\_

Inspector(s) \_\_\_\_\_

| Component Inspected          | Condition of Component | Check if Major Damage |
|------------------------------|------------------------|-----------------------|
| Asphalt and/or Concrete Cap  |                        |                       |
| Granite Markers              |                        |                       |
| Groundwater Monitoring Wells |                        |                       |

**Comments:**

This Inspection Log was prepared in accordance with the requirements and obligations in the Monitoring and Maintenance Plan for the Site.

\_\_\_\_\_  
(Name), PE/PG

**LAND-USE CERTIFICATION FORM**  
**Encore Dry Cleaners (Former) HSI No. 10530**

| TYPE                   | No. | CRITERIA RESPONSE   | YES | NO |
|------------------------|-----|---|-----|----|
| Land Use               | 1   | Does this property meet the definition of non-residential property as defined in HSRA Rule 391-3-19.02(2)?<br><br>"Non-residential property means any property or portion of a property not currently being used for human habitation or for other purposes with a 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..." |     |    |
|                        | 1a  | If no to 1, attach a written explanation to this form.  |     |    |
| Exposure               | 2   | Has excavation, construction, utility installation or maintenance, or similar land disturbing activities been conducted at the site within the last year?   |     |    |
|                        | 2a  | If yes to 2, was work performed using appropriate personal protective equipment (PPE)?  |     |    |
|                        | 2b  | Has groundwater beneath the property been used or extracted for drinking water or any other non-remedial purpose?   |     |    |
|                        | 2c  | If yes to 2b, attach a written explanation to this form.  |     |    |
| Institutional Controls | 3   | Do all leases or other property instruments for the site have the applicable deed notice language inserted into them.   |     |    |
|                        | 3a  | If no to 3, attach a written explanation to this form.  |     |    |
| Inspection             | 4   | Date of Inspection and Name of Inspector:   |     |    |
|                        | 4a  | Photographs showing current land use (attached)   |     |    |

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
NAME (Please type or print)

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

# **EXHIBIT C**

## **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.**