August 13, 2020

Ms. Rachel Hudson McManus, Hydrogeologist
UST Corrective Action Section, Groundwater Branch
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

**Re: Modified Corrective Action Plan**
**(Cost Proposal No. 19)**
**Former RaceWay Store No. 850**
**1250 Opelika Highway**
**Auburn, Alabama**
**Facility I.D. No. 14001-081-009546**
**Incident No. UST17-01-04**
**PPM Project No. 466161-MCAP**

Dear Ms. McManus:

Enclosed please find one copy of the Modified Corrective Action Plan (Cost Proposal No. 19) prepared by PPM Consultants, Inc. for the referenced site.

If you have any questions or need additional information, please do not hesitate to contact me at (205) 836-5650.

Sincerely,
PPM Consultants, Inc.

Matthew J. Ebbert, P.G.
Senior Geologist

c: Mr. Eric Blaylock, RaceTrac Petroleum, Inc.

# MODIFIED CORRECTIVE ACTION PLAN
# (COST PROPOSAL NO. 19)

## RACETRAC PETROLEUM, INC.
## FORMER RACEWAY STORE NO. 850
## 1250 OPELIKA ROAD
## AUBURN, ALABAMA

**FACILITY I.D. NO. 14001-081-009546**
**INCIDENT NO. UST17-01-04**

**PPM PROJECT NO. 466161-MCAP**

**AUGUST 13, 2020**

PPM CONSULTANTS

**MODIFIED CORRECTIVE ACTION PLAN**
**(COST PROPOSAL NO. 19)**

**FOR**

**FORMER RACEWAY STORE NO. 850**
**1250 OPELIKA ROAD**
**AUBURN, ALABAMA**

**FACILITY I.D. NO. 14001-081-009546**
**INCIDENT NO. UST17-01-04**

**PREPARED FOR:**

**RACETRAC PETROLEUM, INC.**
**200 GALLERIA PARKWAY SE, SUITE 900**
**ATLANTA, GEORGIA 30339**

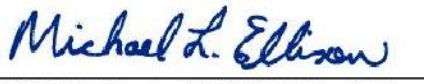
**PPM PROJECT NO. 466161-MCAP**

**AUGUST 13, 2020**


**PREPARED BY:**

**MATTHEW J. EBBERT, P.G.**
**SENIOR GEOLOGIST**

**REVIEWED BY:**



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**PRINCIPAL**

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**BIRMINGHAM, ALABAMA 35210**
**(205) 836-5650**

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# CERTIFICATION PAGE

*I certify under penalty of law that this Modified Corrective Action Plan for the Former RaceWay Store No. 850 facility located at 1250 Opelika Road, Auburn, Alabama, and the plans, specifications, and technical data submitted within were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. It is noted that data obtained prior to February 2019 were acquired by others and are assumed to be accurate and correct. Based on my inquiring of the person or persons who directly gathered the enclosed 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.*

Michael L. Ellison, P.E.
AL No. 23757

08/13/20
Date

# UST RELEASE FACT SHEET

## GENERAL INFORMATION:

SITE NAME: Former RaceWay Store No. 850

ADDRESS: 1250 Opelika Road, Auburn, Alabama

FACILITY I.D. NO.: 14001-081-009546

INCIDENT NO.: UST17-01-04

## RESULTS OF EXPOSURE ASSESSMENT:

(Information provided by EMC, Inc.)

| | |
|---|---|
| How many private drinking water wells are located within 1,000 ft. of site? | 1* |
| How many public water supply wells are located within 1 mile of the site? | 0 |
| Have any drinking water supply wells been impacted by contamination from this release? | { } Yes { X } No |
| Is there an imminent threat of contamination to any drinking water wells? | { } Yes { X } No |
| Have vapors or contaminated groundwater posed a threat to the public? | { } Yes { X } No |
| Are any underground utilities impacted or imminently threatened by the release? | { } Yes { X } No |
| Have surface waters been impacted by the release? | { } Yes { X } No |
| Is there an imminent threat of contamination to surface waters? | { } Yes { X } No |
| What is the type of surrounding population? | Commercial/Residential |

## CONTAMINATION DESCRIPTION:

Type of contamination at site: { X} Gasoline, { } Diesel, { } Waste Oil { } Kerosene, { } Other _

Free product present in wells? { X } Yes { } No RW-1 (globules 01-30-20)

Maximum TPH concentration measured in soil: 4.529 mg/kg

| | |
|---|---|
| Current maximum COC concentrations measured in groundwater: (April 2, 2020) | 16.3 mg/L benzene (MW-5)<br>71.2 mg/L total BTEX (AS-4)<br>1.2 mg/L MTBE (RW-7)<br>1.4 mg/L naphthalene (AS-2) |

ADEM Form 479 8/02

* - The domestic well previously identified near the site has been destroyed by construction activities.

# ADEM GROUNDWATER BRANCH
# UST SITE CLASSIFICATION SYSTEM CHECKLIST

Please read all of the following statements and mark either yes or no if the statement applies to your site. If you have conducted a Preliminary or Secondary Investigation, all questions should be answered. Closure site assessment reports may not provide you with all the necessary information, but answer the statements with the knowledge obtained during the closure site assessment.

SITE NAME: Former RaceWay Store No. 850
SITE ADDRESS: 1250 Opelika Road, Auburn, Alabama

FACILITY I.D. NO.: 14001-081-009546
INCIDENT NO.: UST17-01-04

OWNER NAME: RaceTrac Petroleum, Inc.
OWNER ADDRESS: 200 Galleria Parkway SE, Suite 900, Atlanta, Georgia 30339

NAME & ADDRESS OF PERSON COMPLETING THIS FORM: Matthew J. Ebbert, P.G., PPM Consultants, Inc. 5555 Bankhead Highway, Birmingham, Alabama 35210

| *CLASSIFICATION* | *DESCRIPTION* | *YES* | *NO* |
|---|---|---|---|
| CLASS A | IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR | | |
| A.1 | Vapor concentrations at or approaching explosive levels that could cause health effects, are present in a residence or building. | ☐ | ☒ |
| | | | |
| A.2 | Vapor concentrations at or approaching explosive levels are present in subsurface utility system(s), but no buildings or residences are impacted. | ☐ | ☒ |
| CLASS B | IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR | | |
| B.1 | An active public water supply well, public water supply line, or public surface water intake is impacted or immediately threatened. | ☐ | ☒ |
| | | | |
| B.2 | An active domestic water supply well, domestic water supply line or domestic surface water intake is impacted or immediately threatened. | ☐ | ☒ |
| | | | |
| B.3 | The release is located within a designated Wellhead Protection Area I. | ☐ | ☒ |
| CLASS C | IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR | | |
| C.1 | Ambient vapor/particulate concentrations exceed concentrations of concern from an acute exposure, or safety viewpoint. | ☐ | ☒ |
| | | | |
| C.2 | Free product is present on the groundwater, at ground surface, on surface water bodies, in utilities other than water supply lines, or in surface water runoff. | ☒ | ☐ |
| CLASS D | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| D.1 | There is a potential for explosive levels, or concentrations of vapors that could cause acute effects, to accumulate in a residence or other building. | ☐ | ☒ |
| | | | |
| D.2 | A non-potable water supply well is impacted or immediately threatened. | ☐ | ☒ |

**ADEM GROUNDWATER BRANCH**
**UST SITE CLASSIFICATION SYSTEM**
**CHECKLIST (continued)**

| *CLASSIFICATION* | *DESCRIPTION* | *YES* | *NO* |
|---|---|---|---|
| | | | |
| D.3 | Shallow contaminated surface soils are open to public access, and dwellings, parks, playgrounds, day care centers, schools or similar use facilities are within 500 feet of those soils. | ☐ | ☒ |
| CLASS E | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| E.1 | A sensitive habitat or sensitive resources (sport fish, economically important species, threatened and endangered species, etc.) are impacted and affected. | ☐ | ☒ |
| CLASS F | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| F.1 | Groundwater is impacted and a public well is located within 1 mile of the site. | ☐ | ☒ |
| | | | |
| F.2 | Groundwater is impacted and a domestic well is located within 1,000 feet of the site. | ☐ | ☒ |
| | | | |
| F.3 | Contaminated soils and/or groundwater are located within designated Wellhead Protection Areas (Areas II or III). | ☐ | ☒ |
| CLASS G | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| G.1 | Contaminated soils and/or groundwater are located within areas vulnerable to contamination from surface sources. | ☒ | ☐ |
| GLASS H | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| H.1 | Impacted surface water, stormwater or groundwater discharges within 500 feet of a surface water body used for human drinking water, whole body water-contact sports, or habitat to a protected or listed endangered plant and animal species. | ☐ | ☒ |
| CLASS I | LONG TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| I.1. | Site has contaminated soils and/or groundwater but does not meet any of the above-mentioned criteria. | ☐ | ☒ |

***ADDITIONAL COMMENTS:***

Water well information provided by EMC, Inc. A water line is located close to shallow contamination.
The site is located within the igneous and metamorphic aquifer recharge area and is susceptible to surface contamination.
The domestic well previously identified near the site has been destroyed by construction activities.

**Complete the classification evaluation questions listed above. Upon completion, determine the highest rank of the site (A.1 is the highest rank) based on the statements answered with a yes.**

| Enter the determined classification ranking: | **C.2** |
|---|---|

ADEM GROUNDWATER BRANCH
SITE CLASSIFICATION CHECKLIST
(5/8/95)

# 1.0 INTRODUCTION

PPM Consultants, Inc. (PPM) was retained by RaceTrac Petroleum, Inc. (RaceTrac) to prepare this Modified Corrective Action Plan (CAP) for the Former RaceWay Store No. 850 facility located at 1250 Opelika Road in Auburn, Alabama. The preparation of the Modified CAP was authorized by the Alabama Department of Environmental Management (ADEM) with approval of Cost Proposal No. 19 via letter dated June 6, 2019.

The purpose of this Modified CAP is to provide an approach to decrease constituent of concern (COC) concentrations in soil and groundwater to below Site-Specific Corrective Action Levels (SSCALs). The COCs for the site include benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), and naphthalene.

Prior corrective actions at the site have consisted of periodic mobile enhanced multi-phase extraction (MEME) events, air sparging, and remediation by natural attenuation (RNA) monitoring intended to address COC impact in soil and groundwater. Although reductions in dissolved COC concentrations were observed over time, additional corrective actions are necessary to achieve site objectives in a more-timely manner.

This Modified CAP provides a summary of pertinent environmental activities conducted to date at the facility and a detailed description of the proposed approach for continued site remediation. A schedule and cost estimates are included for the implementation of the Modified CAP and associated effectiveness monitoring.

# 2.0 SITE BACKGROUND

## 2.1 SITE LOCATION

The Former RaceWay Store No. 850 site was a retail petroleum station that is currently a vacant lot located at 1250 Opelika Road in Auburn, Alabama. The site is situated in the northwest ¼ of the southwest ¼ of Section 21, Township 19 North, Range 26 East of the Auburn, Alabama, Quadrangle. More specifically, the site is located at 32° 37’ 16" north latitude and 85° 27' 19" west longitude. The site location is shown in **Figure 1**, **Site Location Map** in **Appendix A**, **Figures**.

## 2.2 SURROUNDING AREA

The property is located along Opelika Road in a commercial/residential area of Auburn, Alabama. To the east, south, and west of the property a new residential and commercial area (Midtown Auburn) was recently constructed. U-Haul, Bombay Grill, and NAPA Auto Parts are located to the north, across Opelika Road.

## 2.3 SITE DESCRIPTION

The topography of the site is relatively flat on the northern portion of the property where the release occurred and slopes toward the south-southeast on the southern portion of the property. The northern portion is a vacant lot and southern portion contains a wooded area. Structures formerly at the site included: a store building, a canopy north of the store building, and three dispensers located beneath the canopy. The underground storage tank (UST) system, which was removed in December 2016, included three 8,000-gallon gasoline USTs and associated product transfer piping. The three USTs were located within a single UST pit adjacent to and east of the former store building. The product piping extended from the northwestern corner of the UST pit to the northwest, to the dispenser island located north of the store building. Site features are shown on **Figure 2, Site Map**.

Underground utilities identified at the site include electric, natural gas, water, and sanitary sewer. Underground electrical lines traversing northwest to southeast were identified on the offsite property to the east; however, their locations could not be determined. The natural gas, water, and sanitary sewer lines traverse from southwest to northeast along the south side of Opelika Road. The natural gas and sanitary sewer lines also traverse from southeast to northwest, across Opelika Road. Overhead power lines are also present at the site. The approximate locations of identified underground and above ground utilities are provided on **Figure 2**.

## 2.4 SITE HISTORY

The following provides a brief summary of pertinent activities conducted at the site to date.

**UST Closure Site Assessment**

On December 13 and 14, 2016, the three, 8,000-gallon gasoline USTs and associated piping were closed by removal. Groundwater was found to be greater than 5 feet below the base of the excavation. Total petroleum hydrocarbon (TPH) concentrations in soil

were above 100 milligrams per kilogram (mg/kg) in three samples collected along the piping trench. The concentrations of the three samples ranged from 138 mg/kg to 1,308 mg/kg. The UST Site Assessment Closure Report was submitted to ADEM on January 9, 2017.

Based on the results of the closure assessment, in correspondence dated February 2, 2017, ADEM notified RaceTrac of the requirement to conduct investigative and corrective actions and assigned Incident No. UST17-01-04 to the release. Additionally, the release was determined to be eligible for Alabama Tank Trust Fund (ATTF) coverage and Cost Proposal No. 1 (CP-1) for conducting a Preliminary Investigation and developing a Secondary Investigation Plan was pre-approved.

**Preliminary Investigation**

The Preliminary Investigation was conducted by EMC on April 4 and 5, 2017, and included the advancement of four soil borings and installation of four monitoring wells. Soil and groundwater samples were collected during the investigation to evaluate potential COC impact to the subsurface. Four Type II monitoring wells, MW-1 through MW-4, were constructed in soil borings MW-1 through MW-4, respectively.

Analytical results indicated that COC concentrations in soil were below ADEM's Initial Screening Levels (ISLs). Dissolved COC concentrations exceeded ISLs at monitoring wells MW-1, MW-3, and MW-4. The maximum benzene, MTBE, and naphthalene concentrations were 1.90 milligrams per liter (mg/L), 0.123 mg/L, and 0.216 mg/L, respectively. Free product was not observed in soil or groundwater. The extent of COC impact in soil and groundwater was not adequately delineated. The Preliminary Investigation Report was submitted to ADEM on April 14, 2017.

**Secondary Investigation**

The Secondary Investigation was initiated on July 7, 2017, and included the advancement of eight soil borings and installation of seven 2-inch, Type II monitoring wells (MW-5 through MW-11) and one 2-inch, Type III monitoring well (VEW-1). Soil and groundwater samples were collected during the investigation to evaluate potential COC impact to the subsurface.

Free product was not observed in soil or groundwater. Analytical results indicated that COC concentrations in soil exceeded the benzene ISL in borings MW-5, located north-

northeast of the former tank pit adjacent eastern property boundary and MW-11, located south of the former dispensers and in the central portion of the property. The benzene concentrations at MW-5 at a depth of 10 to 12 feet below ground surface (BGS) and at MW-11 at a depth of 20 to 22 feet BGS were 0.022 mg/kg and 0.387 mg/kg, respectively. Dissolved COC concentrations were above ISLs in 10 of the 12 wells (MW-1 through MW-5, MW-7, MW-9 through MW-11, and VEW-1). The maximum dissolved benzene concentration was 36.0 mg/L in MW-5, adjacent to the eastern property boundary. Dissolved COC concentrations were not horizontally or vertically delineated. The Secondary Investigation Report was submitted to ADEM on August 18, 2017, and recommended High Resolution Vertical Profiling (HRVP) be conducted to determine the extent of residual petroleum in the subsurface.

**Mobile Enhanced Multiphase Extraction (MEME) Events**

Nine monthly 8-hour MEME events were conducted at the site at monitoring wells MW-5, MW-10, and MW-11 between August 2017 and May 2018. During the events an estimated 60.9 pounds (9.8 equivalent gallons) of petroleum hydrocarbons were removed from the site subsurface. Influent hydrocarbon concentrations ranged from a low of 186 parts per million by volume (ppmv) to a high of 2,149 ppmv.

**HRVP**

In November 2017, HRVP was conducted at the site to determine the extent of residual petroleum in the subsurface. During the investigation, 24 soil borings were advanced to depths ranging from 14 to 31 feet BGS. The horizontal and vertical extents of residual petroleum above groundwater were defined within the boundaries of the property. The highest concentrations of residual petroleum were located in an area that extends from north of the former UST pit to the west-southwest to south of the former dispensers.

**Alabama Risk-Based Corrective Action (ARBCA) Report**

An ARBCA Report was conducted to assess current and potential future risk for the subject property and adjacent properties. The ARBCA Report was submitted to ADEM on January 30, 2018. Results of the evaluation indicated that representative COC concentrations in groundwater exceeded the benzene, toluene, ethylbenzene, MTBE, and naphthalene groundwater resource protection (GRP) values at point of compliance (POC) monitoring wells. The SSCALs were approved by ADEM in correspondence dated February 15, 2018.

## Air Sparge Pilot Study

An air sparge pilot study was conducted by EMC On May 16, 2018, to evaluate air sparging as a remediation means. Prior to conducting the study, an Underground Injection Control (UIC) Permit (ALIG010051) was requested and granted with effective date of April 3, 2018. The UIC Permit authorizes the injection of air, oxygen gas, and/or ozone gas into the subsurface at the site.

The pilot study included installation of air sparge well AS-1, installed approximately 10 feet cross-gradient of monitoring well MW-11 to a depth of approximately 32 feet. The pilot test was conducted by injecting air at AS-1 for a period of eight hours at pressures ranging from 19.5 to 22 pounds per square inch (psi). Groundwater samples were collected from AS-1, MW-3, MW-4, and MW-11 just prior to and after the event to compare dissolved COC concentrations. Laboratory results indicated concentrations of total BTEX in wells AS-1, MW-3, and MW-4 declined from 44.01 to 5.399, 9.905 to 8.436, and from 7.831 to 7.555 mg/L, respectively. The total BTEX concentration at MW-11 increased from 17.192 to 35.65 mg/L. Based on the results of the test, EMC concluded air sparging would be reasonably suited to remediate the contamination at the site.

## Groundwater Monitoring and MEME Events

Two quarterly groundwater monitoring and 8-hour MEME events were conducted at the site from June 2018 through November 2018. The MEME events were conducted in August and November 2018. During the two events an estimated 11.1 pounds (1.8 equivalent gallons) of petroleum hydrocarbons were removed from the site subsurface. Influent hydrocarbon concentrations ranged from a low of 212 ppmv to a high of 868 ppmv. Dissolved COC concentrations continued to exceed SSCALs at multiple wells and the horizontal and vertical extents of dissolved COCs continued to be undefined except toward the south.

## Corrective Action Plan Evaluation

A CAP Evaluation was conducted to assess remedial strategies that would effectively and efficiently decrease COC concentrations in soil and groundwater to below GRP values established for the site. The CAP Evaluation was submitted to ADEM on July 3, 2018, and recommended an air sparge system be installed and operated at the site. However, ADEM directed RNA with MEME events be utilized to remediate the site. After

discussion with EMC, it was ultimately decided that RNA with MEME events including air sparging would be the corrective action for the site.

## Corrective Action Plan

A CAP was developed for the site to install air sparge and recovery wells and conduct quarterly RNA groundwater monitoring and quarterly 8-hour MEME events with air sparging to address the presence of COC concentrations in soil and groundwater. The CAP was submitted to ADEM on October 10, 2018, and a revised CAP was submitted on October 31, 2018. ADEM authorized implementation of the CAP in correspondence dated December 10, 2018.

## Additional Well Installation

In January 2019, EMC conducted an additional well installation at the site and included advancement of 13 soil borings and installation of nine recovery wells and four air sparge wells. Soil and groundwater samples were collected during the investigation to evaluate potential COC impact to the subsurface. Nine Type II, 4-inch inside diameter (I.D.) recovery wells, RW-1 through RW-9 and four Type II, 2-inch I.D. air sparge wells AS-2 through AS-5 were constructed in soil borings RW-1 through RW-9 and AS-2 through AS-5, respectively. The recovery wells were constructed with 10 feet of screen and set at depths of approximately 25 to 30 feet BGS. The air sparge wells (including AS-1) were constructed with 2 feet of screen and set at depths of approximately 32 feet BGS. The exception was RW-1 which was constructed with 5 feet of screen and set to a depth of approximately 10 feet BGS for the purpose of recovering vapor from an area of shallow impact just south of the dispensers.

Dissolved COC concentrations exceeded SSCALs at each of the newly installed recovery wells and sparge wells. The maximum dissolved benzene concentration was 42.8 mg/L in AS-2, located near MW-5. Free product was not observed in soil or groundwater. The Additional Well Installation Report was submitted to ADEM on February 11, 2019.

PPM became the consultant for this site on January 15, 2019, and after learning a new residential and retail development (Midtown Auburn) was being constructed east, south, and west of the site property, recommended off-site delineation of dissolved COC concentrations and preparation of a modified CAP to more aggressively remediate the site.

**RNA Monitoring and MEME events with Air Sparging**

From February 2019 to April 2020, PPM conducted quarterly RNA groundwater monitoring and 8-hour MEME events with air sparging in accordance with the approved CAP. These activities were conducted pending off-site property access to the Midtown Auburn properties. The property owner, ultimately gave access to the off-site properties on January 6, 2020, after construction activities were complete.

**Additional Secondary Investigation**

PPM completed additional delineation activities at the Former RaceWay Store No. 850 facility. Tasks completed included advancement of eleven direct-push technology (DPT) soil borings (DPT-1/MW-12, DPT-2, DPT-3/MW-13, DPT-4 through DPT-8/MW-15, DPT-9, DPT-10, and VEW-2), installation of nine shallow Type II, 2-inch I.D. monitoring wells (MW-1R, MW-6R, MW-7R, MW-8R, MW-12, MW-13, MW-14, MW-15, and MW-16), and installation of one deep Type II monitoring well (VEW-2).

Soil samples were collected for description and analysis of BTEX, MTBE, and naphthalene from DPT-1 through DPT-10, and MW-14. Subsurface soil identified from visual inspection generally consisted of clay, sandy clay, and silty clay with mica content generally increasing with depth from ground surface to 74 feet BGS. The soil was consistent with what was expected to be encountered in an area with high-grade metamorphic and igneous geology.

No COCs were detected in soil above their respective ISL during the investigation.

Temporary wells were installed within borings DPT-1 through DPT-10 and groundwater samples were collected and analyzed for BTEX, MTBE, and naphthalene. SSCALs had not been developed for the temporary wells; therefore, results were compared to ISLs. Dissolved benzene and MTBE concentrations exceeded the ISLs at DPT-1 (0.078 mg/L and 0.050 mg/L, respectively). The dissolved ethylbenzene and naphthalene concentrations of 0.78 mg/L and 0.32 mg/L exceeded the ISLs at DPT-10. No other dissolved COC were detected above ISLs. The newly installed wells effectively delineated the horizontal extent of impact.

Based on the soil and groundwater data collected during this investigation, PPM concluded that indoor inhalation of vapors from the accidental release of petroleum products was not likely at off-site properties.

## 2.5 SITE CONDITIONS

### 2.5.1 COCs in Soil

Analytical data for soil samples obtained during prior investigations conducted at the site indicate that COC concentrations were detected in numerous soil borings. Detected concentrations of some COCs in samples collected from HR-14, AS-2, AS-4, and DPE-1 were greater than the SSCALs. The samples that contained elevated COC concentrations were typically collected from 10 to 22 feet BGS with one sample collected from 5 to 7 feet BGS. Based on the results of prior investigations and the HRVP Study performed by EMC, soil impact appears to be localized in the area from the former dispenser islands to the northern half of the former UST pit.

A summary of COC concentrations in soil is provided in **Table 1, Soil Analytical Summary** in **Appendix B, Tables**, and presented in **Figure 3, COC Concentrations in Soil Greater than SSCALs**.

### 2.5.2 Groundwater Elevations

During the April 2, 2020, groundwater sampling event, depth to groundwater in the Type II wells that are set below the perched zone at RW-1, ranged from 19.16 feet below top of casing (BTOC) in monitoring well MW-2 to 21.02 feet BTOC in AS-1. Free product was observed in RW-1; however, a thickness could not be determined. The depth to groundwater measured in the deep Type III well, VEW-1, was 20.02 feet. Based on these measurements, the groundwater flow from the area of the former UST pit and dispensers appears to be generally toward the northwest and west. The hydraulic gradient measured between wells AS-3 and RW-5 was calculated to be 0.044 feet/foot (ft/ft).

**Figure 4**, **Groundwater Elevation Map (April 2, 2020)** depicts the groundwater elevation and estimated flow direction. Groundwater elevation data are shown in **Table 2, Groundwater Elevation Survey Data**.

### 2.5.3 COCs in Groundwater

Analytical results from the April 2, 2020, groundwater sampling event indicate that COC concentrations in groundwater samples ranged as follows:

- Benzene: 0.00091 mg/L – 16.3 mg/L
- Toluene: <0.0005 mg/L – 40.5 mg/L

- Ethylbenzene: <0.0005 mg/L – 3.1 mg/L
- Total Xylenes: <0.003 mg/L – 16.5 mg/L
- Total BTEX: 0.00091 mg/L – 71.2 mg/L
- MTBE: 0.00064 mg/L – 1.2 mg/L
- Naphthalene: 0.011 mg/L – 1.4 mg/L.

Dissolved benzene concentrations exceeded the SSCALs at 19 of the 20 sampled wells. Other constituents that exceeded SSCALs included dissolved toluene at three locations, dissolved MTBE at four locations, and dissolved naphthalene at 14 locations. No other dissolved COC concentration exceeded SSCALs. The horizontal extents of dissolved COCs are not defined at the site in any direction based on this data; however, recent additional investigation activities have helped to define the horizontal extent.

Groundwater grab samples were collected from 1-inch I.D., Type II, temporary wells installed in DPT-1 through DPT-10 in May 2020. Dissolved COC concentrations were detected in groundwater samples from only DPT-1 and DPT-10. Groundwater from the remaining borings, DPT-2 through DPT-9, were below detection limits (BDL). SSCALs have not been developed for the temporary well locations; therefore, concentrations were compared to ADEM ISLs. Dissolved benzene and MTBE concentrations at DPT-1 (0.078 mg/L and 0.050 mg/L, respectively) and the dissolved ethylbenzene and naphthalene concentrations at DPT-10 (0.78 mg/L and 0.32 mg/L, respectively) were above ISLs.

Groundwater analytical results are summarized in **Table 3, Groundwater Analytical Summary**. The apparent horizontal extent of dissolved COC impact, including the April 2, 2020 groundwater sampling data and data collected from the temporary wells in May 2020 is shown on the following figures:

- **Figure 5, Dissolved Benzene Isoconcentration Map (April 2, 2020)**
- **Figure 6, Dissolved MTBE Isoconcentration Map (April 2, 2020)**
- **Figure 7, Dissolved Naphthalene Isoconcentration Map (April 2, 2020)**.

# 3.0 REMEDIAL APPROACH

## 3.1 REMEDIAL OBJECTIVES

This Modified CAP has been prepared to achieve the following objectives:

- Reduce the potential for further migration of dissolved COCs
- Reduce adsorbed COC concentrations in soil to below SSCALs
- Reduce dissolved COC concentrations in groundwater to below SSCALs
- Accomplish site objectives in a safe, timely, and cost-effective manner.

## 3.2 DUAL-PHASE VACUUM EXTRACTION

### 3.2.1 Overview of DPVE

Dual-phase vacuum extraction (DPVE) is a method of extracting vapor and liquid from the subsurface by applying high vacuum to recovery wells in the region where the COCs are present. These high vacuums produce both vapor and liquid phase flow from the subsurface. The flow of air through the subsurface creates a concentration gradient that causes the volatilization of some contaminants that may be present in the vadose zone while delivering oxygen, which can increase microbial activity necessary to biodegrade other contaminants. Free product floating on the groundwater can also be removed at a higher rate in comparison to traditional pump and treat techniques.

The vacuum applied by the DPVE system to a recovery well source creates a low pressure head in the well casing, resulting in a low point in the hydraulic system increasing water flow to the well more readily. The flow of water from the subsurface results in the removal of substances dissolved or suspended in the water and can help to control or reverse the migration of dissolved COC impact. Therefore, DPVE enhances the recovery of COC in the subsurface by removing free product at a higher rate, increasing the groundwater capture zone around the recovery well, and affecting more of the vadose zone by depressing the water table.

Hydrocarbons in the liquid and vapor phase are brought to the surface where they are separated in a vapor-liquid separation vessel. The extracted liquid phase may include both water and hydrocarbons. Multiple liquid phases can be separated in secondary treatment systems. The free phase hydrocarbons are collected for off-site disposal or recycling, and the water is routed for treatment prior to discharging to a permitted location. The vapor phase can be treated by means of a thermal or catalytic oxidizer, through a carbon filter, or in some cases, discharged directly to the atmosphere depending on discharge limits established by ADEM.

Additional details on the installation and utilization of the technology at this site are presented in the following sections.

### 3.2.2 Design Considerations

A pilot test was not performed for this Modified CAP as MEME events have previously been performed at the facility. In general, monitoring wells MW-5, MW-10, and MW-11; recover wells RW-6, RW-7, RW-8, and RW-9; and air sparge well AS-4 were utilized as extraction wells during the MEME events. Groundwater elevations were measured prior to initiating the MEME events and prior to event termination. Induced pressures were also measured prior to each event termination.

#### 3.2.2.1 Liquid Removal

During the 16 8-hour MEME events, an estimated 7,647 gallons of liquid were removed from the subsurface. Based on the events, this equates to an average recovery rate of 1.0 gallons per minute (gpm). Free product has been periodically observed in recovery well RW-1 prior to initiating the events. Data from the MEME events are summarized on **Table 4, Estimated Hydrocarbon Removal**.

#### 3.2.2.2 Induced Pressure Radius of Influence

Induced vacuum (differential pressure) readings, collected during the April 2020 MEME event, above the Environmental Protection Agency (EPA) minimum response limit of 0.1 inches of water column (in. w.c.) were measured at recovery wells RW-4 (0.64 in. w.c.), RW-5 (0.44 in. w.c.), and RW-8 (0.11 in. w.c.). The MEME event data indicate that vacuum influence is possible at a radius of at least 30 feet.

#### 3.2.2.3 Hydraulic Radius of Influence

Groundwater levels were measured and recorded at adjacent monitoring wells during the MEME events to evaluate the effect of the aquifer under the influence of applied vacuum. Drawdowns from 1.01 feet to 3.01 feet were observed in the wells used for extraction during the April 2020 event. Water levels in the two air sparge wells decreased 11.29 feet and 12.14 feet during the event.

#### 3.2.2.4 Vapor/Hydrocarbon Removal

The rate of vapor removal measured during the MEME events typically ranged from 175 to 225 actual cubic feet per minute (acfm). An estimated 586 pounds (95 equivalent gallons)

of hydrocarbons were removed during the 16 8-hour extraction events. Volatile organic compound (VOC) concentrations typically spiked during the first hour of the event and slowly declined toward the end of the events. VOC recovery rates have dramatically increased in the past five events (April 2019 through April 2020) and account for approximately 88 percent of the VOC mass recovered during the 16 MEME events performed at the site. Data from the MEME events are summarized on **Table 4**.

Sixteen recovery wells (nine existing and seven proposed) are proposed to be utilized based on the extent of COC impact in soil and groundwater. Additional information relative to the overall number of proposed recovery wells required is provided in **Section 3.6**. Previous MEME event data reported by Fruits and Associates and recent groundwater data obtained by PPM were utilized for DPVE system selection and recovery well layout.

The proposed DPVE system and recovery well layout are anticipated to sufficiently recover free product, soil vapors, and impacted groundwater within the target area. The varying depths of the recovery wells/screened intervals should produce adequate influence across shallow and lower zones of impact.

### 3.2.3 DPVE System

PPM recommends that an oil-sealed liquid-ring vacuum pump (LRVP) with a minimum operating capacity of 400 acfm at 14 to 18 inches of mercury (in Hg) be used at the site. The LRVP should be powered by a totally enclosed fan cooled (TEFC) motor.

The phase separation equipment should consist of an aluminum construction vacuum-rated knockout pot for separation of the extracted liquids (free product and groundwater) and vapor, an oil/water separator (OWS), and an air stripper (AS) for groundwater treatment.

The aboveground transfer capacity of the unit should be rated for at least 20 gpm on average in the liquid phase. Other components of the DPVE system are discussed in the following sections.

### 3.2.4 Air Treatment

Vapor emissions from the LRVP should be treated by means granular activated carbon (GAC). Two 1,000-pound GAC vessels should be acquired with the purchase of the DPVE system.

No treatment is planned for air stripper emissions as it is anticipated that most VOCs will be removed from the groundwater during the extraction process. As PPM will not be implementing this plan, a request to the ADEM Air Division has not been made to date. Therefore, prior to implementing this Modified CAP a request to the ADEM Air Division should be made by the contractor.

### 3.2.5 Water Treatment

Groundwater should be treated by an air stripper that may consist of a three-tray stripper equipped with a blower that can remove up to 99 percent of contaminants. The design flow rate should be based on a minimum of 20 gpm. Once treated, the groundwater should be pumped to a permitted outfall or the local publicly owned treatment works (POTW) sewer system. PPM spoke with the City of Auburn Sewer District, and was informed that they would accept treated groundwater into the sanitary sewer system, following review of site-specific information. As PPM will not be operating the system, the new consultant should apply for a new National Pollutant Discharge Elimination System (NPDES) permit for the DPVE system effluent or request permission to discharge to the local POTW.

### 3.2.6 Electrical Components

The internal DPVE electrical equipment should meet or exceed Class I, Division 2 National Electrical Code (NEC) standards for explosion-proof apparatus. Power will be provided to the system by Alabama Power.

### 3.2.7 Fail Safe and Telemetry Components

The DPVE unit should be equipped with a telemetry system to provide prompt notification of system shut down if the system cannot restart automatically. The telemetry system should be programmed to automatically contact designated personnel in the event of an alarm condition. The telemetry system should be able to provide data on the cause of shutdowns and, under certain conditions, permits restart of the DPVE system from a remote location.

The telemetry system should also be capable of being accessed for remote monitoring of major system parameters. An hour meter wired to the electrical system of the LRVP should be installed which will provide the total runtime of the system over a given time period. A cellular based communication account can be established to facilitate communication with the telemetry system.

### 3.2.8 Monitoring Components

Monitoring ports should be installed at select locations for collection of vapor extraction and water discharge data. In addition, a flow totalizer meter should be installed to monitor total volume of water discharged from the system. Site glasses can be installed to visually assess the rate of liquid extraction from the subsurface and to make necessary adjustments to enhance liquid recovery rates.

## 3.3 RECOVERY WELL CONSTRUCTION

It is recommended that DPVE be applied to the subsurface by means of 16 4-inch I.D. recovery wells that include existing recovery wells RW-1 through RW-9 and proposed recovery wells (PRW-10 through PRW-16) positioned at strategic locations on the site. In general, adsorbed COC impact has been reported at shallow depths above initial saturation observed during soil boring installation. The average depth to groundwater in the treatment area is approximately 21 feet BGS. Therefore, the termination depth of each proposed recovery well should extend to approximately 25 to 30 feet BGS to achieve sufficient reduction of adsorbed and dissolved COC impact and hydraulic control.

Vacuum applied to these recovery points should induce air flow, capture groundwater, and remove residual free product throughout the target area. Air and groundwater flow from each recovery well can be controlled with gate valves in the manifold to be located adjacent to the DPVE unit. Existing monitoring wells should be used to monitor site response and to serve as locations for measuring induced vacuum and groundwater drawdown once the system is operational. Should the radius of influence from these extraction points be deemed insufficient to capture the majority of COC impact, additional extraction points may be added as needed. The placement of the existing and proposed recovery wells is provided in **Figure 8, Proposed DPVE System Layout**.

## 3.4 ANTICIPATED SITE RESPONSE

The following provides information regarding anticipated site response to remedial efforts based on actual and assumed site conditions.

### 3.4.1 Pneumatic Response

PPM proposes application of DPVE to existing recovery wells RW-1 through RW-9 and proposed recovery wells PRW-10 through PRW-16. The intent of this configuration is to induce air movement throughout the area of COC impact above SSCALs and to

hydraulically contain dissolved COC impact. It is anticipated that the pneumatic response will extend up to 35 feet from on-line recovery wells, depending on the overall configuration utilized.

### 3.4.2 Hydraulic Response

PPM conservatively assumes sustained liquid removal rates up to 0.75 gpm from a single recovery well and a combined extraction rate of up to 4.5 gpm with six recovery wells in operation simultaneously. This rate may decrease over time as the site is gradually dewatered and due to seasonal fluctuations in groundwater elevations. PPM anticipated an approximate 10-foot radius of influence based on data collected during MEME events and professional experience.

## 3.5 PERMITS

A NPDES permit or an agreement with the local POTW will be required to discharge treated groundwater from the DPVE system. Upon Modified CAP approval by ADEM, the consultant shall either prepare an NPDES permit application or make arrangements with the POTW for discharge of the water.

### 3.5.1 Effluent Water

Operation of the DPVE system produces both liquid and vapor phase discharge. It is expected that the extraction process will vacuum-strip up to 80 percent of the COC constituents from the liquid stream. The air stripper should be capable of removing up to 99 percent of remaining COC constituents. Effluent water should be discharged to the permitted outfall per the parameters established by the pending NPDES permit or the POTW outfall per the parameters established by the POTW.

### 3.5.2 Effluent Air

The ADEM Air Division has not been notified of the proposed remediation system and associated methods of emissions treatment as PPM will not be operating the DPVE system. The new consultant shall properly notify the ADEM Air Division to obtain authorization to operate the system. The recovered vapors should be treated with GAC. After effluent vapor concentrations remain below site-specific emission thresholds (SSETs) established by ADEM, the GAC may be removed from the discharge stream (once approved by ADEM).

## 3.6 DPVE SYSTEM INSTALLATION

### 3.6.1 General

The DPVE system should be located within a fenced enclosure once the system has been installed. The proposed location of the unit is shown on **Figure 8**.

Installation dates will be based on the approval date of this Modified CAP by ADEM, submittal of cost proposals by the new consultant, equipment availability, and subcontractor scheduling. Initial installation activities should consist of the following:

- Submittal of an ADEM NPDES permit or POTW application
- Submittal of notification of the DPVE system to the ADEM Air Division
- Installation of recovery wells
- Installation of piping from each recovery well to the DPVE system location
- Completion of a comprehensive baseline sampling event
- Completion of a Solid Waste Profile
- Construction of a manifold to connect the recovery wells to the LRVP
- Mobilization of the DPVE unit and GAC vessels to the site
- Installation of required electrical power supply equipment and lines
- Connection to the local power service provided by Alabama Power
- Site survey of new recovery wells and associated trenching
- Connection of telemetry through a wireless cellular based service
- Preliminary system testing and startup.

### 3.6.2 Recovery Well Construction

Sixteen recovery wells should be utilized for soil and groundwater remediation. Each recovery well has been strategically placed such that remedial objectives can be obtained. Proposed recovery wells are located proximal to monitoring wells that have periodically contained free product and elevated COC concentrations above SSCALs and areas identified by the HRVP Study to contain petroleum hydrocarbons.

The borings for the proposed recovery wells should be advanced to approximately 25 to 30 feet BGS, with 4.25-inch I.D. hollow-stem augers. The borings should then be reamed with 10.25-inch I.D. augers. Down-hole drilling equipment should be cleaned prior to use

at each location with a high-pressure steam rinse. Soil cuttings generated during boring advancement should be placed in roll-off containers for disposal.

The wells should be constructed with 15-foot lengths of 4-inch I.D., 0.01-inch slotted polyvinyl chloride (PVC) screen and appropriate length of riser pipe. Well-graded sand should be placed in the boring annulus for each of the proposed wells from the bottom of the boring to approximately 1 to 2 feet above the screen. A bentonite seal approximately 2 feet thick should be constructed above the sand pack and the remaining annular space should be cemented to within approximately 1 foot BGS. The recovery wells should be completed with 2-foot by 2-foot well vaults that extend slightly above the existing land surface in an effort to reduce the potential for surficial contamination. The site should be subsequently surveyed for horizontal and vertical control. Locations should be referenced to existing monitoring wells at the site.

### 3.6.3 Utility Connections

**Electrical**

The DPVE system should be equipped with a main control panel. The DPVE system should be properly wired by a local electrician for safe system operation. The certified electrical subcontractor should install a temporary power pole, weather head and meter base, a fused main disconnect, and the proper wiring to the system control panel. Electrical work should be performed in general accordance with applicable state and local codes.

**Telemetry**

Remote communication to the telemetry system can be provided by a wireless cellular service provided. The connectivity should provide remote communication through a secure log in.

**Water Effluent**

A 2-inch diameter water effluent discharge line should be installed from the DPVE system to the permitted/approved discharge point.

### 3.6.4 Recovery Piping and Trenches

Vacuum should be applied to 16 independent recovery lines consisting of 4-inch I.D. Schedule (SCH) 40 PVC piping within trenches extending from the system manifold to each individual recovery well. Vacuum at the wellhead should be measured with pressure gauges affixed to the ¾-inch piping extending from each recovery well to the system manifold within the system fencing. The piping should be installed to a depth of at least 18 inches BGS but additional excavation may occur in the trenches if visible COC impact is present during the trenching activities. Efforts should be made to ensure that the piping does not interfere with existing underground utilities.

Trenches should be backfilled with crusher-run gravel. Excavated soils generated during recovery well and trench installation should be placed in roll-containers and transported to permitted Subtitle D landfill, upon approval by ADEM.

### 3.6.5 System Placement and Security

Off-loading and positioning of the remediation system and the two 1,000-pound carbon vessels at the locations designated on **Figure 8** should be accomplished using a crane. The system should be set-up and leveled on concrete block footings. The system should be enclosed in an 8-foot tall wooden privacy fence to prevent unauthorized access. Warning signs will be posted on each side of the privacy fence.

## 3.7 GROUNDWATER MONITORING

A baseline groundwater monitoring event should be conducted at the site prior to system start up. The following provides a description of the typical fieldwork methodology for the baseline event and subsequent effectiveness monitoring events.

A groundwater elevation survey should be performed prior to sampling the wells. Depth to groundwater measurements should be accomplished at each well location to be sampled with an oil/water interface probe capable of measuring the water depth to within +/- 0.01 feet. The interface probe should be cleaned prior to use at each well location by means of a phosphate free soap rinse, an isopropyl rinse, and a rinse of distilled water. Rinse fluids can be discharged to the land surface in areas that do not drain back to the respective well locations.

Prior to sampling, each monitoring well should be purged of approximately three well-casing volumes (or to near dryness) utilizing single use, disposable PVC bailers and nylon rope or a peristaltic pump with new tubing. Purge water from monitoring wells should be stored on site. Once the system is in operation, the purge water should be transferred to the system air stripper for treatment and subsequent discharge to the permitted outfall. Grab samples should be collected from on-line recovery wells via single use, disposable bailers as groundwater is continuously removed from these locations during system operation.

Each sample for COC analysis should be transferred from the bailer into 40-milliliter (ml) glass vials containing hydrochloric acid (HCl) as a preservative. Each container should be filled with the sample, promptly capped, and appropriately labeled to indicate the sample origin. A duplicate sample from one well should be collected for quality assurance/quality control (QA/QC) protocol. Containers should then be placed in an iced cooler for preservation during shipment to the laboratory.

Upon completion of sampling activities, sample coolers should be transported or shipped under standard chain-of-custody protocol to an independent testing laboratory for analyses.

## 3.8 DPVE STARTUP/INITIAL OPTIMIZATION

During the initial startup of the system, vacuum should not be applied to the recovery wells in order to allow adequate time to check system operation. System components should be monitored to ensure that the system is operating properly prior to applying the vacuum to the subsurface. During the first day of operation, the vacuum should gradually be applied to the recovery wells by slowly decreasing the percentage of ambient air introduced at the LRVP intake. Data should be collected to evaluate the initial VOC concentrations in the discharge air, the average groundwater removal rate, and the average airflow rate through the subsurface. This information can provide a comparison of the system performance during the optimization period. The initial startup period is anticipated to be completed in approximately two days.

Measurement of water table drawdown in the recovery wells can be used to evaluate the hydraulic radius of influence and can assist in estimating the capture zone. The vapor discharge rate and ambient airflow rates should be measured to assess if the system is effective in creating sufficient airflow in the subsurface. Adjustments which may optimize the air flow could include adjusting the level of applied vacuum to the recovery well in various combinations, installing passive venting wells, and cleaning of well screens due to clogging or biological fouling.

The volume of groundwater removed from the subsurface should be monitored to observe the groundwater recovery rate and volume. Modifications should be performed in the field to enhance the rate of groundwater recovery such as adjusting the level of applied vacuum to the recovery points in various combinations.

## 3.9 DPVE OPERATIONS AND MAINTENANCE

Periodic site visits should be conducted for O&M and monitoring activities. These activities should be conducted by an engineer, geologist, or technician experienced in DPVE O&M.

Site visits should occur approximately two times per month. Additional visits may be required based on site-specific conditions encountered. O&M and monitoring activities recommended to be conducted during these routine visits are discussed in the following sections.

Normal operations should include O&M of the system and continued optimization of system performance as needed. Scheduled visits should be made to maintain the system components and ensure the system is operating as intended. Minor system components should be regularly inspected and replaced or repaired as required. Pumps within the unit should be serviced on a routine basis. If a shutdown of the system occurs, the consultant should attempt to provide personnel to restart/repair the system within 72 hours of receiving notification of shut down.

Typical O&M activities should include the following:

- Visual inspection of treatment system components and their condition (including pipe connections for potential leaks due to vibration)
- Inspection and testing of fluid level probes and cleaning as needed
- Monitoring of vacuum levels at designated points in the DPVE system
- Monitoring of pressure levels on the exhaust side of the LRVP
- Monitoring of service water volumes used
- Monitoring of vapor temperatures at designated points in the DPVE system
- Removal of silt and sludge buildup from the knockout pot and other system components
- Evaluation of free product separation effectiveness in the oil separator (if present)
- Removal of air stripper foulants.

## 3.10 MONITORING

The progress of corrective action activities should be monitored to evaluate if the remedial objectives are being met. Soil analytical results obtained during the previous investigations at the site should be used for comparison purposes. Results from the baseline groundwater sampling should be used to gauge the progress of groundwater remediation efforts.

### 3.10.1 DPVE System Monitoring

System monitoring should include routine measurement of operational parameters and should coincide with O&M activities. Parameters to be measured, recorded, or calculated during the monthly activities are as follows:

- Y Date of each site visit
- Y Measuring groundwater/free product elevation in select monitoring wells (minimum of once per quarter for the first year)
- Y Manual bailing of free product from monitoring and recovery wells (if observed)
- Y Hydraulic and pneumatic radius of influence and supporting calculations
- Y Mass of hydrocarbons removed in vapor and liquid phase and supporting calculations
- Y Volume of liquids removed and discharged
- Y Air flow readings at pump discharge
- Y Liquid flow totalizer readings at system effluent
- Y Vapor concentrations at the LRVP discharge and carbon vessels
- Y Effluent sampling results and permit compliance status
- Y Total system runtime and explanations of unscheduled shutdowns
- Y O&M activities and system condition.

The information should be compiled into an on-going project database designed to automatically calculate information such as mass of hydrocarbons and volume of groundwater removed. This information is automatically calculated for both the monitoring period and life of the project.

### 3.10.2 Monthly System Sampling

Effluent water samples should be collected on a monthly basis in accordance with the NPDES permit for the site or the agreement with the POTW. If an NPDES permit is obtained, Discharge Monitoring Reports (DMRs) should be submitted to ADEM semi-annually. Water effluent samples should be analyzed for pH, oil and grease (EPA Method 1664A), BTEX, MTBE, and naphthalene (EPA Method 8260). A field measurement of pH should be performed at the time samples are collected. The volume of water discharged, as indicated by the in-line flow meter, should also be recorded at this time.

Effluent vapor samples from the LRVP emissions should be collected on a quarterly basis. Each sample should be analyzed for total VOCs per EPA Method 8260, modified for air.

### 3.10.3 Quarterly Groundwater Sampling

Groundwater samples from each of the recovery wells and monitoring wells should be collected, at least once annually. Limited groundwater sampling events are recommended during subsequent quarterly periods to monitor the effectiveness of the system at reducing dissolved COC concentrations. Groundwater samples should be analyzed for BTEX, MTBE, and naphthalene per EPA Method 8260.

## 3.11 GROUNDWATER MONITORING

A groundwater monitoring event should be conducted at the site to establish baseline conditions before system start up. Samples should be collected from each accessible well for analysis of BTEX, MTBE, and naphthalene per EPA Method 8260.

The following provides a detailed description of the proposed fieldwork methodology for effectiveness monitoring events.

A groundwater elevation survey should be performed prior to sampling the wells. Depth to groundwater measurements should be accomplished at each well location to be sampled with an oil/water interface probe capable of measuring the water depth to within +/- 0.01 feet. The interface probe should be cleaned prior to use at each well location by means of a phosphate free soap rinse, an isopropyl rinse, and a rinse of distilled water. Rinse fluids can be discharged to the land surface in areas that do not drain back to the respective well locations.

Prior to sampling, each well should be purged of approximately three well-casing volumes (or to near dryness) utilizing single use, disposable PVC bailers and nylon rope or a peristaltic pump with new tubing. Purge water from sampled monitoring wells should be contained for temporary storage. Recovered purge water should be treated by the DPVE system or taken to a permitted petroleum-contact water disposal facility. It is estimated that 75 to 150 gallons of purge water will be generated during the sampling event.

Each sample for COC analysis should be transferred from the bailer into 40- ml glass vials containing HCl as a preservative. Each container should be filled with the sample, promptly capped, and appropriately labeled to indicate the sample origin. A duplicate sample should be collected from one well for QA/QC protocol. Containers should then be placed in an iced cooler for preservation during shipment to the laboratory.

Personnel should wear disposable nitrile gloves during well purge and sample collection activities in an effort to reduce the potential for cross-contamination and as part of personal protective equipment (PPE) for the project. Gloves should be changed and discarded between each sample acquisition.

Select water quality parameters [pH, temperature, specific conductance, oxidation reduction potential (ORP), and dissolved oxygen (DO)] should be measured during sample collection. Measurements should be performed for each well sampled and will be representative of the water collected from the well. Instrument readings should be documented in the project field book or sampling log.

On completion of sampling activities, sample coolers should be transported or shipped under standard chain-of-custody protocol to an independent testing laboratory for analyses.

# 4.0 REPORTING

Reports should be prepared in accordance with ADEM requirements. These reports should include:

1. Report of Corrective Action Implementation
   This report should be submitted within 60 days of system start-up and should include a description of the work performed, results of the baseline groundwater monitoring event, and pertinent photographs of field activities.

2. Reporting of Corrective Action Effectiveness
   Quarterly progress reports should be submitted to ADEM, which summarize field activities and progress of the system toward reducing COC concentrations to below SSCALs. These reports should include an evaluation of the system effectiveness and recommendations concerning any additional modifications or changes in remedial approaches that may be necessary. ADEM Corrective Action System Effectiveness Monitoring Report (CASEMR) forms should be included with each report.

3. Site Closure Report/Monitoring Well Abandonment
   This report should describe in detail the closure of the site and removal of all remediation equipment and monitoring, recovery, and sparge wells.

# 5.0 CLOSURE EVALUATION

The data collected during site monitoring activities should be evaluated on a quarterly basis or more frequently if needed. Criteria for considering termination of remedial activities should include reduction of COC concentrations to at or below SSCALs or a determination that asymptotic levels have been reached.

Remedial measures should be terminated following approval from ADEM. The site should be monitored for potential increases in COC concentrations (rebound) once corrective actions have ceased. Recommendations should be made concerning further remedial action should COC concentrations rebound.

# 6.0 PROJECT SCHEDULE

The contractor should notify ADEM five days in advance of the scheduled system installation efforts to allow Department personnel the opportunity to visit the site during work activities if possible. If rescheduling is necessary, ADEM should be notified by telephone of the new date and reason for rescheduling.

## 6.1 ESTIMATED SCHEDULE FOR SYSTEM INSTALLATION

The equipment manufacturers typically require a lead time for building the system at 10 to 12 weeks to build the system after award of the contract. PPM estimates that site preparation/system installation activities will require approximately two to three weeks to

complete, pending site and weather conditions encountered. System offloading and connection activities will likely require two to three days to complete.

System start-up activities will require approximately two days for adequate system monitoring prior to departing from the site. Based on this anticipated schedule, PPM estimates that system installation, start up, and initial optimization efforts can be completed within 120 days of Modified CAP and cost proposal approvals. A report can be submitted within 150 days of authorization.

### 6.2 ESTIMATED CLEAN UP TIME

Although the length of time required to reach the cleanup objectives cannot be predicted precisely, PPM anticipates that the DPVE unit will be operated for at least two years, with sufficient runtime. A more accurate prediction of cleanup time can be provided once the system has been in operation long enough to establish trends in VOC mass removal rates, groundwater extraction rates, and hydraulic and pneumatic capture zones.

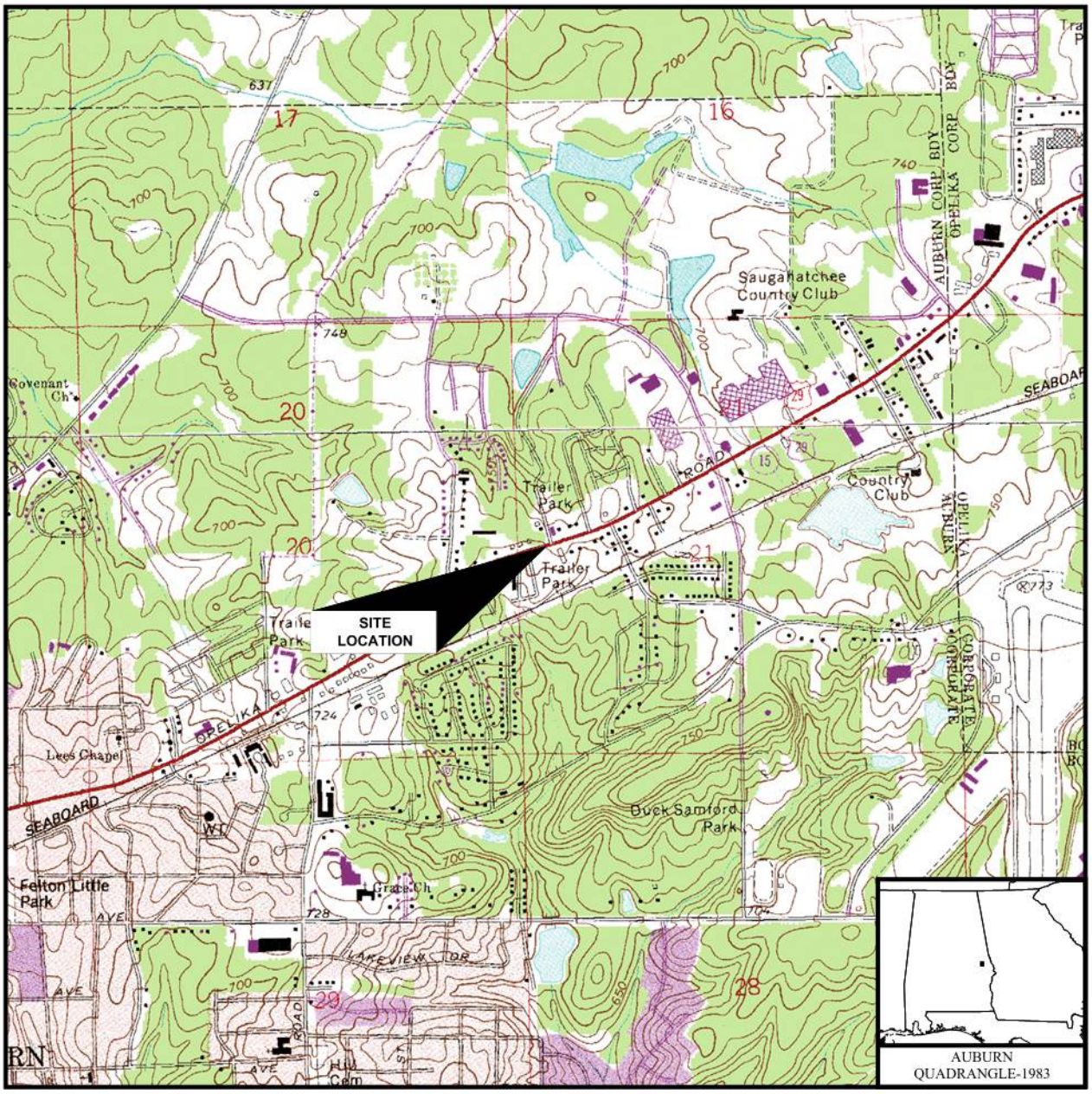
## 7.0 COST ESTIMATE

The work elements for this CAP are eligible for reimbursement from the ATTF. As PPM will not be retained to install or operate the remediation system, cost proposals have not been prepared for these tasks. For budgetary purposes, the following estimates are provided to implement the Modified CAP. These have been developed using PPM's professional experience with similar projects performed under the ATTF. PPM recently received quotations from three equipment manufacturers: Product Recovery Management (PRM); Mid-Atlantic Environmental, Inc. (MAE2); and Newterra, Inc. for a system of similar design and these serve as the basis for the system purchase estimate.

- System Purchase $115,000 to $140,000
- System Installation $90,000 to $125,000
- Quarterly O&M (per year) $100,000 to $130,000

# APPENDICES

# APPENDIX A – FIGURES




SCALE: 1 : 24,000

1 .5 0 1
MILES

1000 0 1000 5000 10,000
FEET

1 0 KILOMETER 1 2
1000 0 METER 1000 2000

| | |
|---|---|
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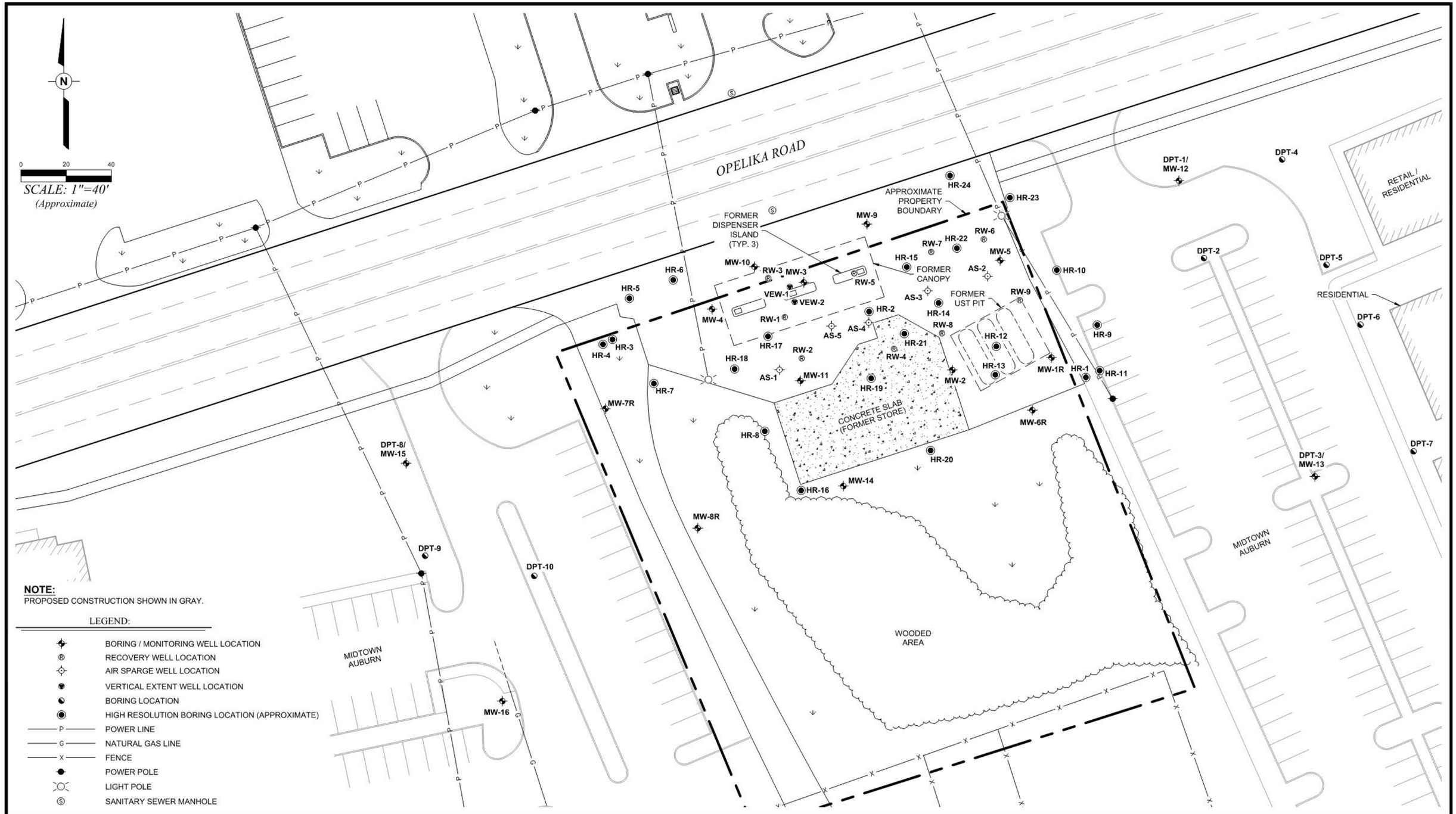
| DRAWN BY: BWH | DRAWN DATE: 07/28/20 |
| PROJECT NUMBER: 466161 | PHASE: MCAP |

RACETRAC PETROLEUM, INC.
**FORMER RACEWAY STORE NO. 850**
1250 OPELIKA ROAD
AUBURN, ALABAMA

SITE LOCATION MAP

FIGURE NUMBER
1




**NOTE:**
PROPOSED CONSTRUCTION SHOWN IN GRAY.

LEGEND:

- BORING / MONITORING WELL LOCATION
- RECOVERY WELL LOCATION
- AIR SPARGE WELL LOCATION
- VERTICAL EXTENT WELL LOCATION
- BORING LOCATION
- HIGH RESOLUTION BORING LOCATION (APPROXIMATE)
- P — POWER LINE
- G — NATURAL GAS LINE
- X — FENCE
- POWER POLE
- LIGHT POLE
- SANITARY SEWER MANHOLE

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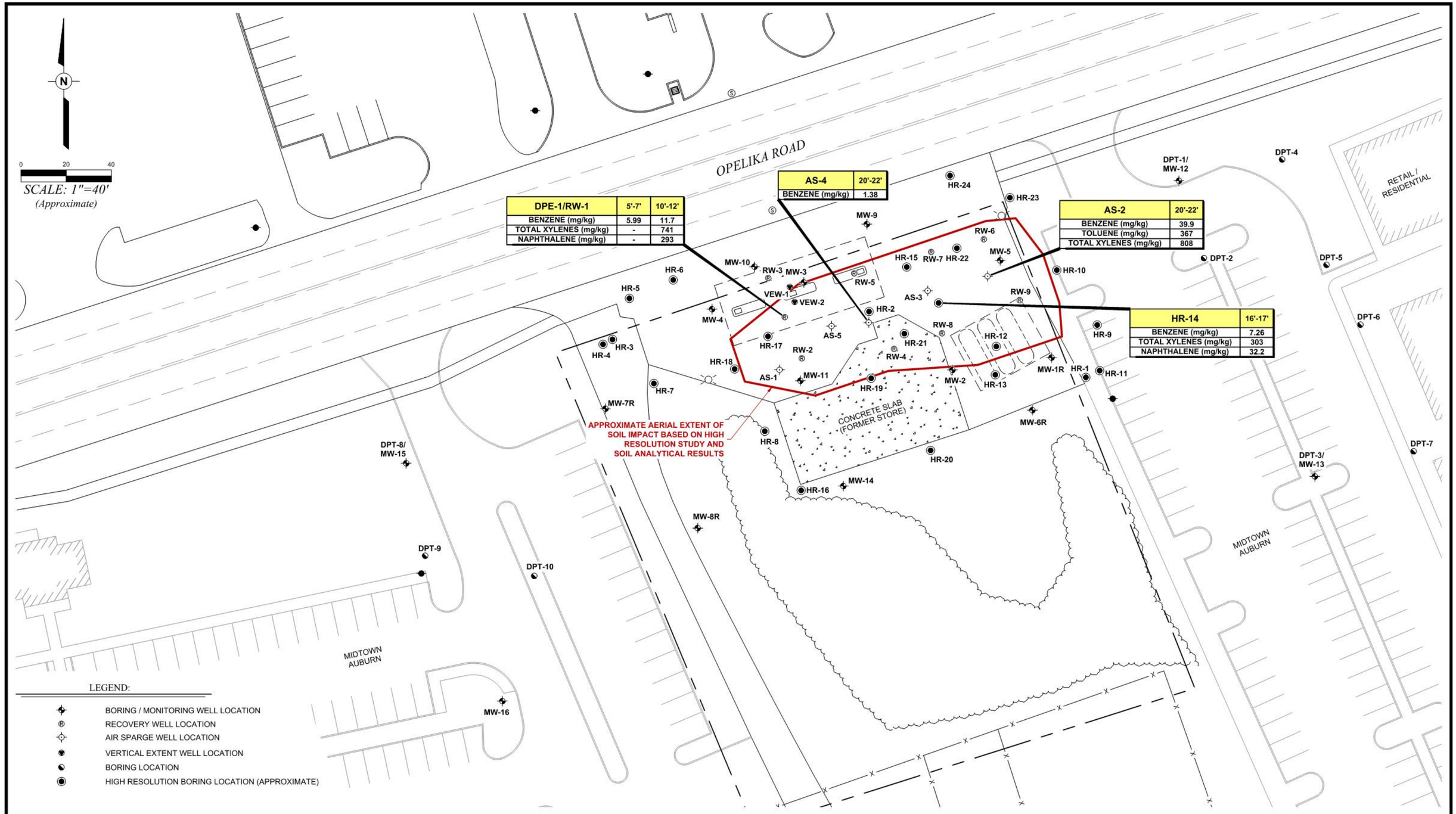
| 466161 | MCAP |

RACETRAC PETROLEUM, INC.
**FORMER RACEWAY STORE NO. 850**
1250 OPELIKA ROAD
AUBURN, ALABAMA

SITE MAP

FIGURE NUMBER
2




| | |
|---|---|
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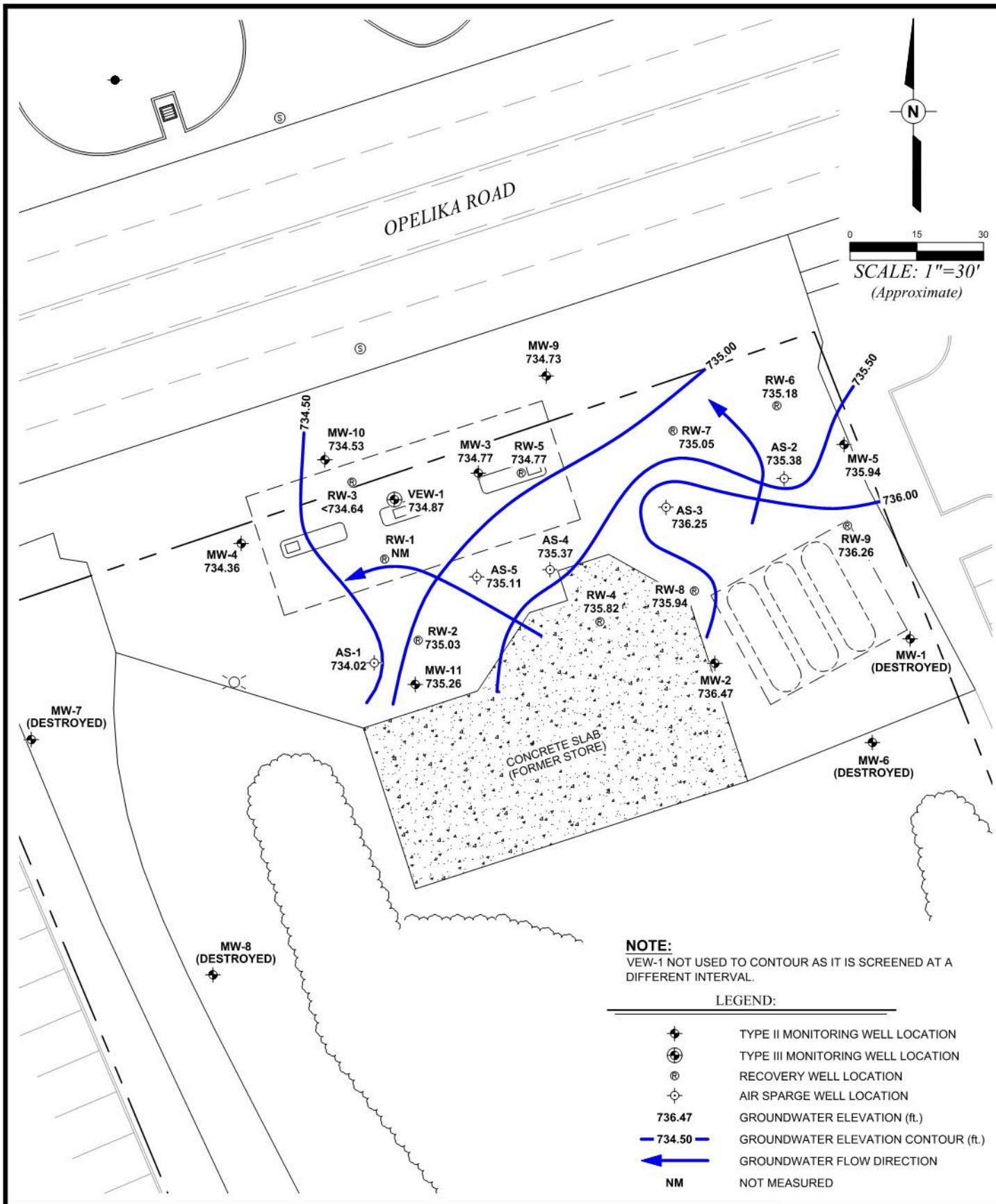
| PROJECT NUMBER: 466161 | PHASE: MCAP |

RACETRAC PETROLEUM, INC.
**FORMER RACEWAY STORE NO. 850**
1250 OPELIKA ROAD
AUBURN, ALABAMA

COC CONCENTRATIONS IN SOIL GREATER THAN SSCALs

FIGURE NUMBER
3




**NOTE:**
VEW-1 NOT USED TO CONTOUR AS IT IS SCREENED AT A DIFFERENT INTERVAL.

LEGEND:

| | |
|---|---|
| ⌖ | TYPE II MONITORING WELL LOCATION |
| ⊕ | TYPE III MONITORING WELL LOCATION |
| Ⓡ | RECOVERY WELL LOCATION |
| ⊙ | AIR SPARGE WELL LOCATION |
| 736.47 | GROUNDWATER ELEVATION (ft.) |
| 734.50 | GROUNDWATER ELEVATION CONTOUR (ft.) |
| ← | GROUNDWATER FLOW DIRECTION |
| NM | NOT MEASURED |

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|---|---|
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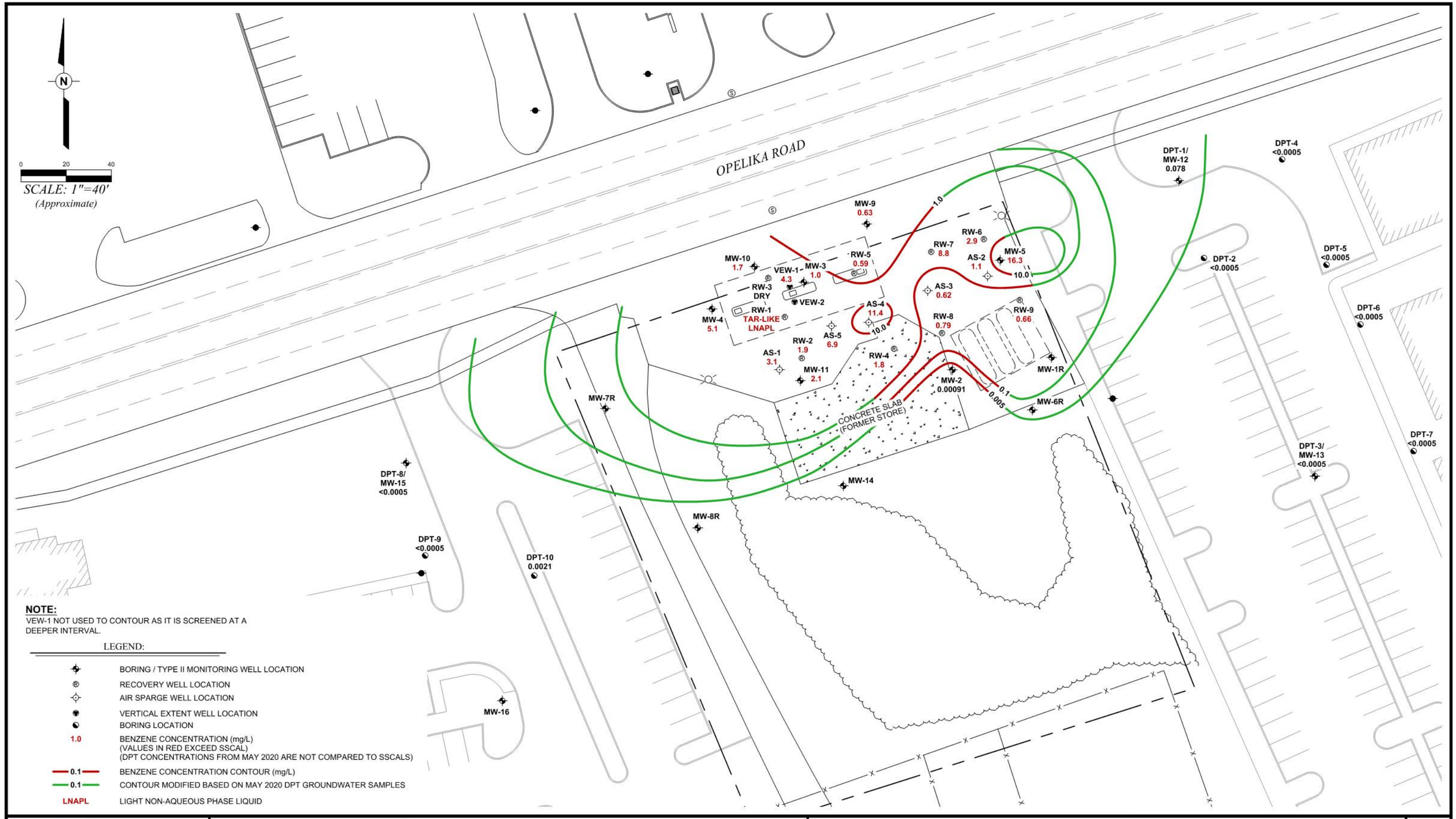
RACETRAC PETROLEUM, INC.
**FORMER RACEWAY STORE NO. 850**
1250 OPELIKA ROAD
AUBURN, ALABAMA

# GROUNDWATER ELEVATION MAP (APRIL 2, 2020)

FIGURE NUMBER
4




**NOTE:**
VEW-1 NOT USED TO CONTOUR AS IT IS SCREENED AT A DEEPER INTERVAL.

LEGEND:

| | |
|---|---|
| ⌖ | BORING / TYPE II MONITORING WELL LOCATION |
| ® | RECOVERY WELL LOCATION |
| ⊹ | AIR SPARGE WELL LOCATION |
| ⌖ | VERTICAL EXTENT WELL LOCATION |
| ◒ | BORING LOCATION |
| 1.0 | BENZENE CONCENTRATION (mg/L)<br>(VALUES IN RED EXCEED SSCAL)<br>(DPT CONCENTRATIONS FROM MAY 2020 ARE NOT COMPARED TO SSCALS) |
| 0.1 | BENZENE CONCENTRATION CONTOUR (mg/L) |
| 0.1 | CONTOUR MODIFIED BASED ON MAY 2020 DPT GROUNDWATER SAMPLES |
| LNAPL | LIGHT NON-AQUEOUS PHASE LIQUID |

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|---|---|
| BWH | 07/28/20 |
| PROJECT NUMBER: | PHASE: |
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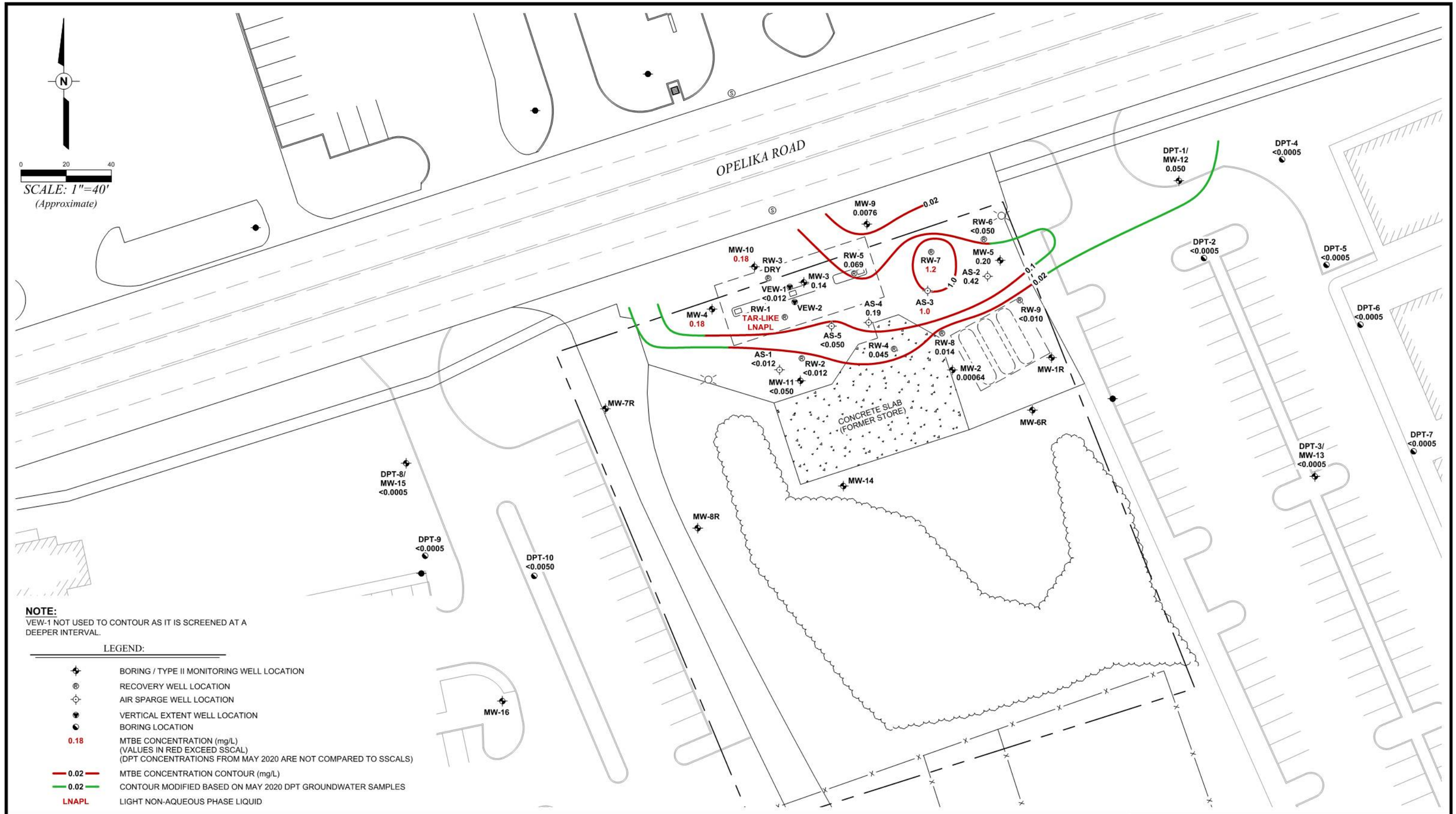
RACETRAC PETROLEUM, INC.
**FORMER RACEWAY STORE NO. 850**
1250 OPELIKA ROAD
AUBURN, ALABAMA

# DISSOLVED BENZENE ISOCONCENTRATION MAP (APRIL 2, 2020)

FIGURE NUMBER
5




**NOTE:**
VEW-1 NOT USED TO CONTOUR AS IT IS SCREENED AT A DEEPER INTERVAL.

LEGEND:

| | |
|---|---|
| ⌖ | BORING / TYPE II MONITORING WELL LOCATION |
| ® | RECOVERY WELL LOCATION |
| ⊙ | AIR SPARGE WELL LOCATION |
| ▼ | VERTICAL EXTENT WELL LOCATION |
| ◒ | BORING LOCATION |
| 0.18 | MTBE CONCENTRATION (mg/L) (VALUES IN RED EXCEED SSCAL) (DPT CONCENTRATIONS FROM MAY 2020 ARE NOT COMPARED TO SSCALS) |
| 0.02 | MTBE CONCENTRATION CONTOUR (mg/L) |
| 0.02 | CONTOUR MODIFIED BASED ON MAY 2020 DPT GROUNDWATER SAMPLES |
| LNAPL | LIGHT NON-AQUEOUS PHASE LIQUID |

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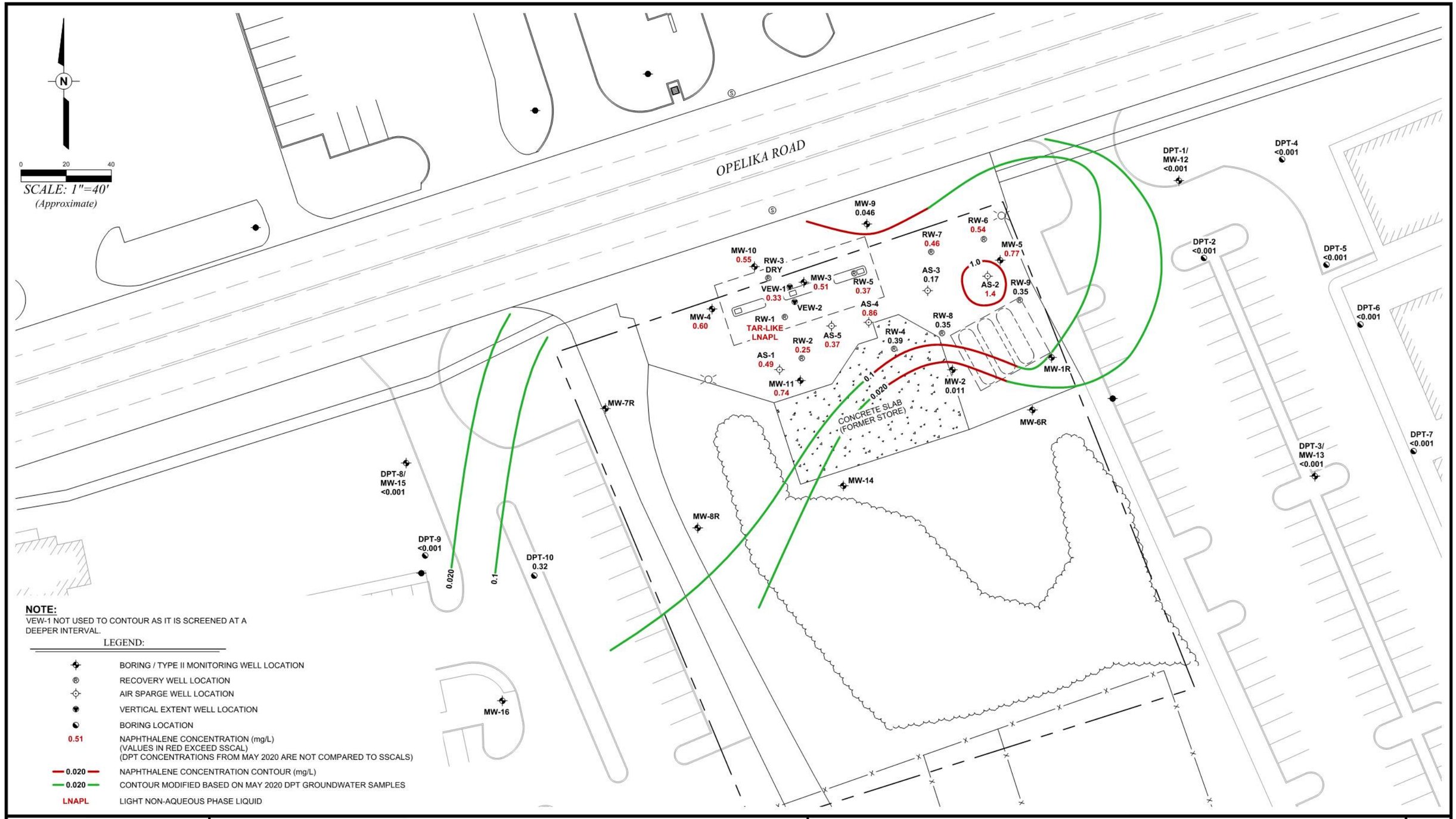
|---|---|
| BWH | 07/28/20 |
| PROJECT NUMBER: | PHASE: |
| 466161 | MCAP |

RACETRAC PETROLEUM, INC.
**FORMER RACEWAY STORE NO. 850**
1250 OPELIKA ROAD
AUBURN, ALABAMA

# DISSOLVED MTBE ISOCONCENTRATION MAP
(APRIL 2, 2020)

FIGURE NUMBER
6




**NOTE:**
VEW-1 NOT USED TO CONTOUR AS IT IS SCREENED AT A DEEPER INTERVAL.

LEGEND:

| | |
|---|---|
| ⌖ | BORING / TYPE II MONITORING WELL LOCATION |
| Ⓡ | RECOVERY WELL LOCATION |
| ⊙ | AIR SPARGE WELL LOCATION |
| ◉ | VERTICAL EXTENT WELL LOCATION |
| ◔ | BORING LOCATION |
| 0.51 | NAPHTHALENE CONCENTRATION (mg/L)<br>(VALUES IN RED EXCEED SSCAL)<br>(DPT CONCENTRATIONS FROM MAY 2020 ARE NOT COMPARED TO SSCALS) |
| 0.020 | NAPHTHALENE CONCENTRATION CONTOUR (mg/L) |
| 0.020 | CONTOUR MODIFIED BASED ON MAY 2020 DPT GROUNDWATER SAMPLES |
| LNAPL | LIGHT NON-AQUEOUS PHASE LIQUID |

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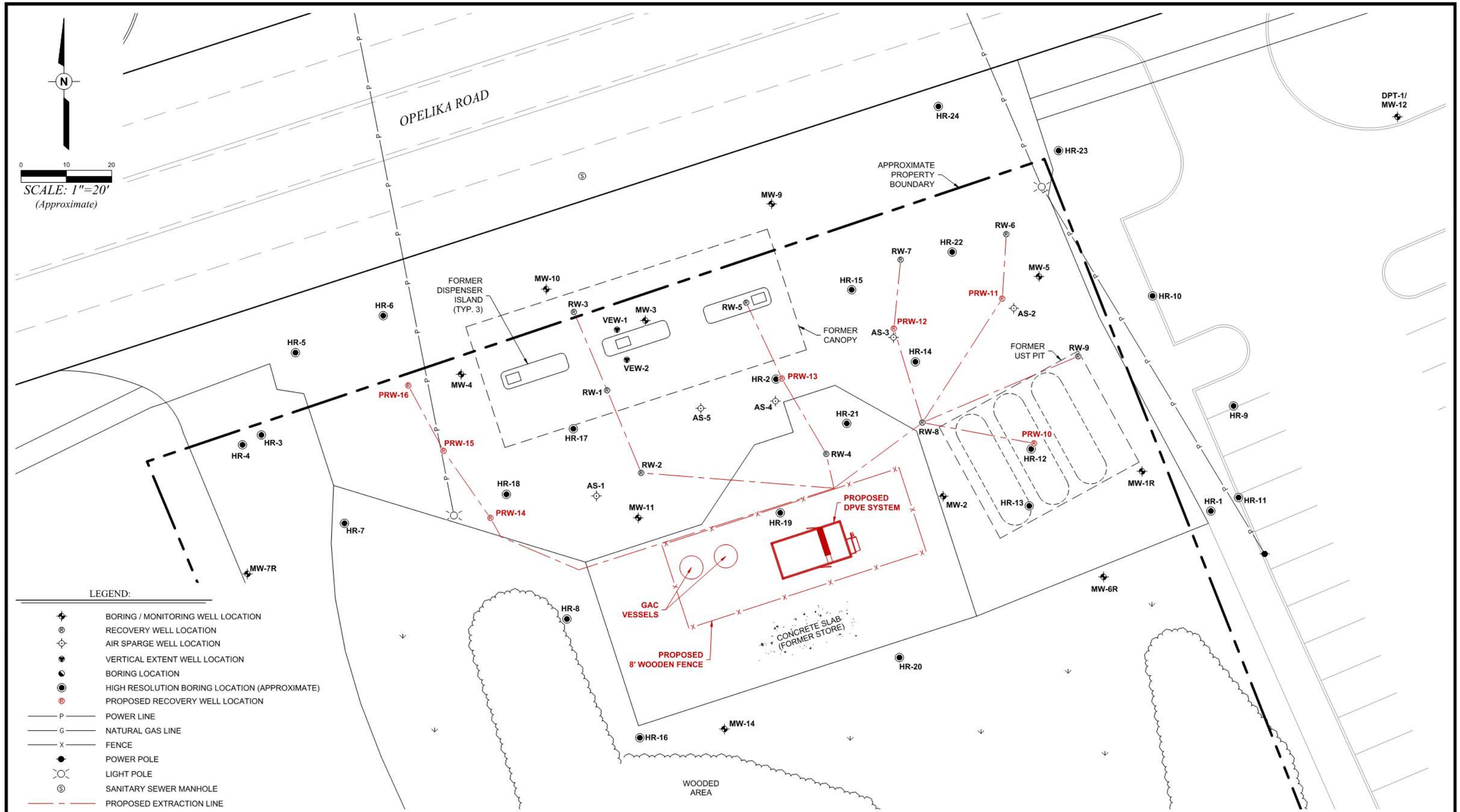
| DRAWN BY: | DRAWN DATE: |
|---|---|
| BWH | 07/28/20 |
| PROJECT NUMBER: | PHASE: |
| 466161 | MCAP |

RACETRAC PETROLEUM, INC.
**FORMER RACEWAY STORE NO. 850**
1250 OPELIKA ROAD
AUBURN, ALABAMA

# DISSOLVED NAPHTHALENE ISOCONCENTRATION MAP (APRIL 2, 2020)

FIGURE NUMBER
7




| | |
|---|---|
| PPM CONSULTANTS, INC. www.ppmco.com | |
| DRAWN BY: BWH | DRAWN DATE: 07/28/20 |
| PROJECT NUMBER: 466161 | PHASE: MCAP |

RACETRAC PETROLEUM, INC.
**FORMER RACEWAY STORE NO. 850**
1250 OPELIKA ROAD
AUBURN, ALABAMA

PROPOSED DPVE SYSTEM LAYOUT

FIGURE NUMBER
8

# APPENDIX B – TABLES

**TABLE 1**
**SOIL ANALYTICAL SUMMARY**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| SAMPLE I.D. | SAMPLE DEPTH (ft BGS) | SAMPLE DATE | HEADSPACE READING (ppmv) | BENZENE (mg/kg) | TOLUENE (mg/kg) | ETHYL-BENZENE (mg/kg) | XYLENES (mg/kg) | TOTAL BTEX (mg/kg) | MTBE (mg/kg) | NAPHTH-ALENE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **SSCAL - Commercial Indoor Inhalation** | | | | **0.787** | **148** | **545** | **220** | **--** | **1,620** | **195** |
| MW-1 | 15-17 | 4/4/2017 | NR | <0.005 | 0.006 | 0.021 | 0.241 | 0.268 | 0.007 | 0.318 |
| MW-1 | 25-27 | 4/4/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | 0.083 | 0.095 |
| **SSCAL - GRP Source Boring** | | | | **0.262** | **110** | **110** | **220** | **--** | **0.301** | **17.5** |
| MW-2 | 5-7 | 4/4/2017 | NR | <0.005 | <0.005 | <0.005 | 0.021 | 0.021 | <0.005 | <0.025 |
| MW-2 | 15-17 | 4/4/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| **SSCAL - GRP Source Boring** | | | | **0.262** | **110** | **110** | **220** | **--** | **0.301** | **17.5** |
| MW-3 | 10-12 | 4/4/2017 | NR | <0.005 | 0.025 | 0.039 | 0.196 | 0.260 | 0.007 | <0.025 |
| MW-3 | 20-22 | 4/4/2017 | NR | <0.005 | 0.006 | 0.010 | 0.073 | 0.089 | 0.023 | <0.025 |
| MW-4 | 5-7 | 4/4/2017 | NR | <0.005 | 0.008 | 0.009 | 0.047 | 0.064 | <0.005 | <0.025 |
| MW-4 | 20-22 | 4/4/2017 | NR | <0.005 | 0.007 | 0.016 | 0.080 | 0.103 | <0.005 | <0.025 |
| MW-5 | 10-12 | 7/11/2017 | NR | 0.022 | 0.058 | 0.056 | 0.241 | 0.377 | <0.005 | 0.165 |
| MW-5 | 15-17 | 7/11/2017 | NR | <0.005 | 0.137 | 0.512 | 3.88 | 4.529 | 0.731 | 0.529 |
| MW-6 | 5-7 | 7/11/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-6 | 20-22 | 7/11/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-7 | 5-7 | 7/11/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-7 | 15-17 | 7/11/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-8 | 5-7 | 7/11/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-8 | 10-12 | 7/11/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-9 | 10-12 | 7/11/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-9 | 20-22 | 7/12/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-10 | 5-7 | 7/12/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-10 | 15-17 | 7/12/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| MW-11 | 10-12 | 7/12/2017 | NR | 0.387 | 23.6 | 21.5 | 91.2 | 136.687 | 0.810 | 1.32 |
| MW-11 | 20-22 | 7/12/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| HR-9 | 14-15 | 11/29/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| HR-10 | 11-12 | 11/29/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| HR-12 | 12-1 | 11/29/2017 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| HR-14 | 16-17 | 11/29/2017 | NR | **7.26** | 67.5 | 54.9 | **303** | 432.66 | <0.005 | **32.2** |
| **SSCAL - GRP Source Boring** | | | | **0.262** | **110** | **110** | **220** | **--** | **0.301** | **17.5** |
| AS-2 | 5-7 | 1/8/2019 | NR | 0.018 | <0.005 | 0.043 | <0.015 | 0.061 | <0.005 | 0.049 |
| AS-2 | 20-22 | 1/8/2019 | NR | **39.9** | **367** | 173 | **808** | 1,387.9 | <0.005 | 86.1 |
| AS-3 | 10-12 | 1/8/2019 | NR | 0.045 | 0.007 | 0.019 | 0.022 | 0.093 | 0.007 | <0.025 |
| AS-3 | 15-17 | 1/8/2019 | NR | 0.296 | 0.077 | 0.167 | 0.576 | 1.116 | 0.039 | <0.025 |
| AS-4 | 5-7 | 1/8/2019 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| AS-4 | 20-22 | 1/9/2019 | NR | **1.38** | 18.6 | 17.3 | 82.5 | 119.78 | <0.005 | 11.7 |

**TABLE 1**
**SOIL ANALYTICAL SUMMARY**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| SAMPLE I.D. | SAMPLE DEPTH (ft BGS) | SAMPLE DATE | HEADSPACE READING (ppmv) | BENZENE (mg/kg) | TOLUENE (mg/kg) | ETHYL-BENZENE (mg/kg) | XYLENES (mg/kg) | TOTAL BTEX (mg/kg) | MTBE (mg/kg) | NAPHTH-ALENE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **SSCAL - Commercial Indoor Inhalation** | | | | **0.787** | **148** | **545** | **220** | **--** | **1,620** | **195** |
| AS-5 | 1-3 | 1/9/2019 | NR | 0.104 | 0.210 | 2.49 | 0.110 | 2.914 | <0.005 | 0.055 |
| AS-5 | 15-17 | 1/9/2019 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <0.005 | <0.025 |
| DPE-1 | 5-7 | 1/9/2019 | NR | **5.99** | 0.680 | 105 | 107 | 218.67 | <0.005 | 75.6 |
| DPE-1 | 10-12 | 1/9/2019 | NR | **11.7** | 14.4 | 352 | **741** | 1119.1 | <0.005 | **293** |
| DPE-2 | 5-7 | 1/9/2019 | NR | <0.005 | 0.006 | <0.005 | <0.015 | 0.006 | <0.005 | <0.025 |
| DPE-2 | 10-12 | 1/9/2019 | NR | 0.005 | 0.014 | 0.006 | 0.019 | 0.044 | <0.005 | <0.025 |
| DPE-3 | 1-3 | 1/9/2019 | NR | 0.009 | 0.006 | 0.015 | <0.015 | 0.030 | <0.005 | 0.033 |
| DPE-3 | 15-17 | 1/9/2019 | NR | 0.043 | 0.010 | 0.094 | 0.257 | 0.404 | 0.023 | 0.114 |
| DPE-4 | 20-22 | 1/9/2019 | NR | 0.432 | 3.36 | 11.9 | 56.7 | 72.392 | <0.005 | 9.35 |
| DPE-5 | 5-7 | 1/9/2019 | NR | 0.008 | <0.005 | 0.112 | 0.021 | 0.141 | <.0005 | 1.05 |
| DPE-5 | 10-12 | 1/9/2019 | NR | 0.012 | 0.010 | 0.050 | 0.104 | 0.176 | <.0005 | <0.025 |
| DPE-6 | 10-12 | 1/10/2019 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <.0005 | <0.025 |
| DPE-6 | 20-22 | 1/10/2019 | NR | 0.274 | 0.225 | 0.140 | 0.907 | 1.546 | <.0005 | 0.190 |
| DPE-7 | 5-7 | 1/10/2019 | NR | 0.023 | 0.006 | <0.005 | 0.020 | 0.049 | <.0005 | <0.025 |
| DPE-7 | 20-22 | 1/10/2019 | NR | 0.061 | 0.005 | 0.019 | 0.049 | 0.134 | 0.011 | <0.025 |
| DPE-8 | 10-12 | 1/10/2019 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <.0005 | <0.025 |
| DPE-8 | 15-17 | 1/10/2019 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <.0005 | <0.025 |
| DPE-9 | 15-17 | 1/10/2019 | NR | <0.005 | <0.005 | <0.005 | <0.015 | BDL | <.0005 | <0.025 |
| DPT-1-22-24 | 22-24 | 5/18/2020 | 0 | <0.0063 | <0.0063 | <0.0063 | <0.019 | BDL | <0.0063 | <0.0063 |
| DPT-1-27-29 | 27-29 | 5/18/2020 | 10 | <0.0059 | <0.0059 | <0.0059 | <0.018 | BDL | <0.0059 | <0.0059 |
| DPT-2-22-24 | 22-24 | 5/19/2020 | 0 | <0.0059 | <0.0059 | <0.0059 | <0.018 | BDL | <0.0059 | <0.0059 |
| DPT-2-27-29 | 27-29 | 5/19/2020 | 0 | <0.0054 | <0.0054 | <0.0054 | <0.016 | BDL | <0.0054 | <0.0054 |
| DPT-3-22-24 | 22-24 | 5/19/2020 | 0 | <0.0057 | <0.0057 | <0.0057 | <0.017 | BDL | <0.0057 | <0.0057 |
| DPT-4-22-24 | 22-24 | 5/20/2020 | 0 | <0.0047 | <0.0047 | <0.0047 | <0.014 | BDL | <0.0047 | <0.0047 |
| DPT-4-27-29 | 27-29 | 5/20/2020 | 0 | <0.0056 | <0.0056 | <0.0056 | <0.017 | BDL | <0.0056 | <0.0056 |
| DPT-5-22-24 | 22-24 | 5/19/2020 | 0 | <0.0062 | <0.0062 | <0.0062 | <0.018 | BDL | <0.0062 | <0.0062 |
| DPT-5-27-29 | 27-29 | 5/19/2020 | 0 | <0.0068 | <0.0068 | <0.0068 | <0.021 | BDL | <0.0068 | <0.0068 |
| DPT-6-22-24 | 22-24 | 5/19/2020 | 0 | <0.0072 | <0.0072 | <0.0072 | <0.021 | BDL | <0.0072 | <0.0072 |
| DPT-6-27-29 | 27-29 | 5/19/2020 | 0 | <0.0060 | <0.0060 | <0.0060 | <0.018 | BDL | <0.0060 | <0.0060 |
| DPT-7-22-24 | 22-24 | 5/19/2020 | 0 | <0.0052 | <0.0052 | <0.0052 | <0.016 | BDL | <0.0052 | <0.0052 |
| DPT-7-27-29 | 27-29 | 5/19/2020 | 0 | <0.0061 | <0.0061 | <0.0061 | <0.018 | BDL | <0.0061 | <0.0061 |
| DPT-8-22-24 | 22-24 | 5/20/2020 | 0 | <0.0056 | <0.0056 | <0.0056 | <0.017 | BDL | <0.0056 | <0.0056 |
| DPT-8-27-29 | 27-29 | 5/20/2020 | 5 | <0.0054 | <0.0054 | <0.0054 | <0.016 | BDL | <0.0054 | <0.0054 |

**TABLE 1**
**SOIL ANALYTICAL SUMMARY**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| SAMPLE I.D. | SAMPLE DEPTH (ft BGS) | SAMPLE DATE | HEADSPACE READING (ppmv) | BENZENE (mg/kg) | TOLUENE (mg/kg) | ETHYL-BENZENE (mg/kg) | XYLENES (mg/kg) | TOTAL BTEX (mg/kg) | MTBE (mg/kg) | NAPHTH-ALENE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **SSCAL - Commercial Indoor Inhalation** | | | | **0.787** | **148** | **545** | **220** | **--** | **1,620** | **195** |
| DPT-9-22-24 | 22-24 | 5/20/2020 | 0 | <0.0054 | <0.0054 | <0.0054 | <0.016 | BDL | <0.0054 | <0.0054 |
| DPT-9-27-29 | 27-29 | 5/20/2020 | 0 | <0.0058 | <0.0058 | <0.0058 | <0.017 | BDL | <0.0058 | <0.0058 |
| DPT-10-17-19 | 17-19 | 5/20/2020 | 120 | <0.0061 | <0.0061 | <0.0061 | 0.098 | 0.098 | <0.0061 | <0.0061 |
| DPT-10-22-24 | 22-24 | 5/20/2020 | 200 | <0.0052 | 0.19 | 0.16 | 0.91 | 1.26 | <0.0052 | 0.038 |
| MW-14-14-16 | 14-16 | 5/19/2020 | 0 | <0.0050 | <0.0050 | <0.0050 | <0.015 | BDL | <0.0050 | <0.0050 |
| MW-14-19-21 | 19-21 | 5/19/2020 | 0 | <0.0068 | <0.0068 | <0.0068 | <0.020 | BDL | <0.0068 | <0.0068 |

*Notes:* *ft BGS - feet below ground surface*
*mg/kg - milligrams per kilogram*
*ppmv - parts per million by volume*
*BDL - below detection limit*
*Headspace analysis conducted with a RKI (calibrated to hexane)*
*BTEX, MTBE, naphthalene analyses conducted per EPA Method 8260/5035*
***Bold*** *values exceed Site-Specific Corrective Action Levels (SSCALs)*

*Source:* *PPM Consultants, Inc.*
*PPM Project No. 466161-MCAP*

**TABLE 2**
**GROUNDWATER ELEVATION SURVEY DATA**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| WELL I.D. | DATE | TOP OF CASING ELEVATION (ft) | WELL DEPTH (ft-BTOC) | SCREENED INTERVAL (ft-BTOC) | DEPTH TO FREE PRODUCT (ft-BTOC) | DEPTH TO WATER (ft-BTOC) | GROUND-WATER ELEVATION (ft) |
|---|---|---|---|---|---|---|---|
| MW-1 | 7/12/2017 | 755.33 | 35.0 | 25 - 35 | - | 20.89 | 734.44 |
| | 11/29/2017 | | | | - | 20.91 | 734.42 |
| | 3/28/2018 | | | | - | 19.43 | 735.90 |
| | 8/7/2018 | | | | - | 20.42 | 734.91 |
| | 3/14/2019 | DESTROYED | | | | | |
| MW-2 | 7/12/2017 | 755.63 | 29.0 | 19 - 29 | - | 20.28 | 735.35 |
| | 11/29/2017 | | | | - | 21.19 | 734.44 |
| | 3/28/2018 | | | | - | 19.34 | 736.29 |
| | 5/17/2018 | | | | - | 20.21 | 735.42 |
| | 8/7/2018 | | | | - | 20.46 | 735.17 |
| | 11/6/2018 | | | | - | 21.81 | 733.82 |
| | 3/14/2019 | | 28.9 | | - | 20.08 | 735.55 |
| | 6/18/2019 | | 28.9 | | - | 21.01 | 734.62 |
| | 10/31/2019 | | 29.2 | | - | 23.80 | 731.83 |
| | 1/30/2020 | | 28.9 | | - | 21.35 | 734.28 |
| | 4/2/2020 | | 29.0 | | - | 19.16 | 736.47 |
| MW-3 | 7/12/2017 | 754.74 | 30.0 | 20 - 30 | - | 22.03 | 732.71 |
| | 11/29/2017 | | | | - | 21.24 | 733.50 |
| | 3/28/2018 | | | | - | 20.61 | 734.13 |
| | 5/17/2018 | | | | - | 21.06 | 733.68 |
| | 5/22/2018 | | | | - | 20.82 | 733.92 |
| | 8/7/2018 | | | | - | 20.87 | 733.87 |
| | 11/6/2018 | | | | - | 21.85 | 732.89 |
| | 3/14/2019 | | 30.1 | | - | 20.30 | 734.44 |
| | 6/18/2019 | | 30.1 | | - | 20.42 | 734.32 |
| | 10/31/2019 | | 30.2 | | - | 22.56 | 732.18 |
| | 1/30/2020 | | 30.2 | | - | 22.08 | 732.66 |
| | 4/2/2020 | | 30.1 | | - | 19.97 | 734.77 |
| MW-4 | 7/12/2017 | 754.42 | 30.0 | 20 - 30 | - | 21.92 | 732.50 |
| | 11/29/2017 | | | | - | 21.39 | 733.03 |
| | 3/28/2018 | | | | - | 20.70 | 733.72 |
| | 5/17/2018 | | | | - | 21.00 | 733.42 |
| | 5/22/2018 | | | | - | 21.04 | 733.38 |
| | 8/7/2018 | | | | - | 21.33 | 733.09 |
| | 11/6/2018 | | | | - | 21.24 | 733.18 |
| | 3/14/2019 | | 30.1 | | - | 20.60 | 733.82 |
| | 6/18/2019 | | 30.1 | | - | 20.77 | 733.65 |
| | 10/31/2019 | | 30.2 | | - | 22.75 | 731.67 |
| | 1/30/2020 | | 30.3 | | - | 22.10 | 732.32 |
| | 4/2/2020 | | 30.3 | | - | 20.06 | 734.36 |
| MW-5 | 7/12/2017 | 755.91 | 28.0 | 18 - 28 | - | 21.83 | 734.08 |
| | 11/29/2017 | | | | - | 21.78 | 734.13 |
| | 3/28/2018 | | | | - | 20.52 | 735.39 |
| | 5/17/2018 | | | | - | 21.00 | 734.91 |
| | 8/7/2018 | | | | - | 20.96 | 734.95 |
| | 11/6/2018 | | | | - | 22.22 | 733.69 |
| | 3/14/2019 | | 28.1 | | - | 20.86 | 735.05 |
| | 6/18/2019 | | 28.1 | | - | 21.31 | 734.60 |
| | 10/31/2019 | | 27.9 | | - | 23.84 | 732.07 |
| | 1/30/2020 | | 28.2 | | - | 22.43 | 733.48 |
| | 4/2/2020 | | 28.1 | | - | 19.97 | 735.94 |

**TABLE 2**
**GROUNDWATER ELEVATION SURVEY DATA**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| WELL I.D. | DATE | TOP OF CASING ELEVATION (ft) | WELL DEPTH (ft-BTOC) | SCREENED INTERVAL (ft-BTOC) | DEPTH TO FREE PRODUCT (ft-BTOC) | DEPTH TO WATER (ft-BTOC) | GROUND-WATER ELEVATION (ft) |
|---|---|---|---|---|---|---|---|
| MW-6 | 7/12/2017 | 755.62 | 28.0 | 18 - 28 | - | 19.99 | 735.63 |
| | 11/29/2017 | | | | - | 21.10 | 734.52 |
| | 3/28/2018 | | | | - | 18.94 | 736.68 |
| | 8/7/2018 | | | | - | 20.41 | 735.21 |
| | 3/14/2019 | DESTROYED | | | | | |
| MW-7 | 7/12/2017 | 751.51 | 26.0 | 16 - 26 | - | 19.28 | 732.23 |
| | 11/29/2017 | | | | - | 20.60 | 730.91 |
| | 3/28/2018 | | | | - | 18.86 | 732.65 |
| | 8/7/2018 | | | | - | 20.36 | 731.15 |
| | 11/6/2018 | | | | - | 21.53 | 729.98 |
| | 3/14/2019 | DESTROYED | | | | | |
| MW-8 | 7/12/2017 | 747.53 | 24.0 | 14 - 24 | - | 15.70 | 731.83 |
| | 3/28/2018 | | | | - | 15.05 | 732.48 |
| | 8/7/2018 | | | | - | 17.02 | 730.51 |
| | 3/14/2019 | DESTROYED | | | | | |
| MW-9 | 7/12/2017 | 755.02 | 28.0 | 18 - 28 | - | 22.52 | 732.50 |
| | 11/29/2017 | | | | - | 21.51 | 733.51 |
| | 3/28/2018 | | | | - | 21.12 | 733.90 |
| | 8/7/2018 | | | | - | 20.96 | 734.06 |
| | 11/6/2018 | | | | - | 21.93 | 733.09 |
| | 3/14/2019 | | 28.0 | | - | 20.65 | 734.37 |
| | 6/18/2019 | | 28.0 | | - | 20.68 | 734.34 |
| | 10/31/2019 | | 28.0 | | - | 22.81 | 732.21 |
| | 1/30/2020 | | 28.2 | | - | 22.48 | 732.54 |
| | 4/2/2020 | | 28.0 | | - | 20.29 | 734.73 |
| MW-10 | 7/12/2017 | 754.38 | 28.0 | 18 - 28 | - | 22.12 | 732.26 |
| | 11/29/2017 | | | | - | 21.12 | 733.26 |
| | 3/28/2018 | | | | - | 20.68 | 733.70 |
| | 8/7/2018 | | | | - | 21.58 | 732.80 |
| | 11/6/2018 | | | | - | 21.52 | 732.86 |
| | 3/14/2019 | | 28.3 | | - | 20.29 | 734.09 |
| | 6/18/2019 | | 28.1 | | - | 20.31 | 734.07 |
| | 10/31/2019 | | 28.1 | | - | 22.36 | 732.02 |
| | 1/30/2020 | | 28.5 | | - | 22.00 | 732.38 |
| | 4/2/2020 | | 28.4 | | - | 19.85 | 734.53 |
| MW-11 | 7/12/2017 | 754.64 | 28.0 | 18 - 28 | - | 21.15 | 733.49 |
| | 11/29/2017 | | | | - | 20.84 | 733.80 |
| | 3/28/2018 | | | | - | 19.76 | 734.88 |
| | 5/17/2018 | | | | - | 20.30 | 734.34 |
| | 5/22/2018 | | | | - | 19.76 | 734.88 |
| | 8/7/2018 | | | | - | 20.42 | 734.22 |
| | 11/6/2018 | | | | - | 21.52 | 733.12 |
| | 3/14/2019 | | 27.8 | | - | 20.00 | 734.64 |
| | 6/18/2019 | | 28.1 | | - | 20.48 | 734.16 |
| | 10/31/2019 | | 27.8 | | - | 22.87 | 731.77 |
| | 1/30/2020 | | 28.1 | | - | 21.65 | 732.99 |
| | 4/2/2020 | | 27.8 | | - | 19.38 | 735.26 |

**TABLE 2**
**GROUNDWATER ELEVATION SURVEY DATA**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| WELL I.D. | DATE | TOP OF CASING ELEVATION (ft) | WELL DEPTH (ft-BTOC) | SCREENED INTERVAL (ft-BTOC) | DEPTH TO FREE PRODUCT (ft-BTOC) | DEPTH TO WATER (ft-BTOC) | GROUND-WATER ELEVATION (ft) |
|---|---|---|---|---|---|---|---|
| VEW-1 | 7/12/2017 | 754.89 | 50.0 | 45 - 50 | - | 32.92 | 721.97 |
| | 11/29/2017 | | | | - | 21.17 | 733.72 |
| | 3/28/2018 | | | | - | 20.90 | 733.99 |
| | 8/7/2018 | | | | - | 21.02 | 733.87 |
| | 11/6/2018 | | | | - | 22.05 | 732.84 |
| | 3/14/2019 | | NM | | - | NM | NM |
| | 6/18/2019 | | 49.7 | | - | 20.74 | 734.15 |
| | 10/31/2019 | | 50.2 | | - | 22.93 | 731.96 |
| | 1/30/2020 | | 50.1 | | - | 22.29 | 732.60 |
| | 4/2/2020 | | 49.7 | | - | 20.02 | 734.87 |
| RW-1 | 3/14/2019 | 754.78 | 10.1 | 5 - 10 | - | 9.56 | <744.78 |
| | 6/18/2019 | | NM | | - | NM | NM |
| | 10/31/2019 | | NM | | 8.52 | 8.54 | 746.26 |
| | 1/30/2020 | | NM | | FP | NM | NM |
| | 4/2/2020 | | NM | | FP | NM | NM |
| RW-2 | 3/14/2019 | 755.14 | 24.9 | 15 - 25 | - | 20.65 | 734.49 |
| | 6/18/2019 | | 24.9 | | - | 21.06 | 734.08 |
| | 10/31/2019 | | 25.2 | | - | 23.29 | 731.85 |
| | 1/30/2020 | | 24.9 | | - | 22.34 | 732.80 |
| | 4/2/2020 | | 25.1 | | - | 20.11 | 735.03 |
| RW-3 | 3/14/2019 | 754.64 | 19.8 | 15 - 20 | - | DRY | <734.64 |
| | 6/18/2019 | | 19.8 | | - | DRY | <734.64 |
| | 10/31/2019 | | 19.8 | | - | DRY | <734.64 |
| | 1/30/2020 | | 19.9 | | - | DRY | <734.64 |
| | 4/2/2020 | | 19.9 | | - | DRY | <734.64 |
| RW-4 | 3/14/2019 | 755.65 | 23.9 | 15 - 25 | - | 20.82 | 734.83 |
| | 6/18/2019 | | 23.9 | | - | 21.17 | 734.48 |
| | 10/31/2019 | | 23.7 | | - | DRY | DRY |
| | 1/30/2020 | | 24.4 | | - | 22.20 | 733.45 |
| | 4/2/2020 | | 23.7 | | - | 19.83 | 735.82 |
| RW-5 | 3/14/2019 | 755.06 | 25.4 | 15 - 25 | - | 20.63 | 734.43 |
| | 6/18/2019 | | 25.4 | | - | 20.72 | 734.34 |
| | 10/31/2019 | | 25.6 | | - | 22.85 | 732.21 |
| | 1/30/2020 | | 26.0 | | - | 22.46 | 732.60 |
| | 4/2/2020 | | 25.6 | | - | 20.29 | 734.77 |
| RW-6 | 3/14/2019 | 756.09 | 25.0 | 15 - 25 | - | 21.43 | 734.66 |
| | 6/18/2019 | | 25.0 | | - | 21.62 | 734.47 |
| | 10/31/2019 | | 25.0 | | - | 24.50 | 731.59 |
| | 1/30/2020 | | 25.2 | | - | 23.13 | 732.96 |
| | 4/2/2020 | | 25.2 | | - | 20.91 | 735.18 |
| RW-7 | 3/14/2019 | 755.61 | 25.0 | 15 - 25 | - | 21.00 | 734.61 |
| | 6/18/2019 | | 25.0 | | - | 21.12 | 734.49 |
| | 10/31/2019 | | 25.2 | | - | 23.61 | 732.00 |
| | 1/30/2020 | | 25.6 | | - | 22.80 | 732.81 |
| | 4/2/2020 | | 25.1 | | - | 20.56 | 735.05 |
| RW-8 | 3/14/2019 | 755.55 | 25.6 | 15 - 25 | - | 20.44 | 735.11 |
| | 6/18/2019 | | 25.6 | | - | 21.05 | 734.50 |
| | 10/31/2019 | | 25.6 | | - | 23.65 | 731.90 |
| | 1/30/2020 | | 25.8 | | - | 21.95 | 733.60 |
| | 4/2/2020 | | 25.5 | | - | 19.61 | 735.94 |

**TABLE 2**
**GROUNDWATER ELEVATION SURVEY DATA**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| WELL I.D. | DATE | TOP OF CASING ELEVATION (ft) | WELL DEPTH (ft-BTOC) | SCREENED INTERVAL (ft-BTOC) | DEPTH TO FREE PRODUCT (ft-BTOC) | DEPTH TO WATER (ft-BTOC) | GROUND-WATER ELEVATION (ft) |
|---|---|---|---|---|---|---|---|
| RW-9 | 3/14/2019 | 755.77 | 25.4 | 15 - 25 | - | 20.60 | 735.17 |
| | 6/18/2019 | | 25.4 | | - | 21.14 | 734.63 |
| | 10/31/2019 | | 25.3 | | - | 23.73 | 732.04 |
| | 1/30/2020 | | 25.4 | | - | 22.12 | 733.65 |
| | 4/2/2020 | | 25.3 | | - | 19.51 | 736.26 |
| AS-1 | 3/14/2019 | 755.04 | 33.0 | 30-32 | - | 20.66 | 734.38 |
| | 6/18/2019 | | 33.1 | | - | 21.04 | 734.00 |
| | 10/31/2019 | | 32.9 | | - | 23.26 | 731.78 |
| | 1/30/2020 | | 33.4 | | - | 22.27 | 732.77 |
| | 4/2/2020 | | 33.1 | | - | 21.02 | 734.02 |
| AS-2 | 3/14/2019 | 755.87 | 31.6 | 30-32 | - | 21.08 | 734.79 |
| | 6/18/2019 | | 31.6 | | - | 21.43 | 734.44 |
| | 10/31/2019 | | 31.4 | | - | 24.31 | 731.56 |
| | 1/30/2020 | | 31.8 | | - | 22.78 | 733.09 |
| | 4/2/2020 | | 31.6 | | - | 20.49 | 735.38 |
| AS-3 | 3/14/2019 | 755.52 | 32.6 | 30-32 | - | 20.85 | 735.02 |
| | 6/18/2019 | | 32.6 | | - | 21.14 | 734.38 |
| | 10/31/2019 | | 32.5 | | - | 24.84 | 730.68 |
| | 1/30/2020 | | 32.5 | | - | 22.60 | 732.92 |
| | 4/2/2020 | | 32.6 | | - | 19.27 | 736.25 |
| AS-4 | 3/14/2019 | 755.32 | 32.5 | 30-32 | - | 20.55 | 734.77 |
| | 6/18/2019 | | 32.5 | | - | 20.98 | 734.34 |
| | 10/31/2019 | | 32.3 | | - | 23.40 | 731.92 |
| | 1/30/2020 | | 32.7 | | - | 22.23 | 733.09 |
| | 4/2/2020 | | 32.3 | | - | 19.95 | 735.37 |
| AS-5 | 3/14/2019 | 755.14 | 30.6 | 30-32 | - | 20.60 | 734.54 |
| | 6/18/2019 | | 30.6 | | - | 21.15 | 733.99 |
| | 10/31/2019 | | 32.6 | | - | 23.22 | 731.92 |
| | 1/30/2020 | | 32.7 | | - | 22.31 | 732.83 |
| | 4/2/2020 | | 32.3 | | - | 20.03 | 735.11 |

*Notes:* *ft-BTOC - feet below top of casing*
*Elevations for MW-1 through MW-11 and VEW-1 based on survey performed by EMC*
*NM - Not measured*
*NL - Not located*
*FP - Free product*

*Source(s):* *Environmental Management & Consulting, Inc. (EMC)*
*PPM Consultants, Inc.*
*PPM Project No. 466161-MCAP*

**TABLE 3**
**GROUNDWATER ANALYTICAL SUMMARY**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| SAMPLE I.D. | SAMPLE DATE | BENZENE (mg/L) | TOLUENE (mg/L) | ETHYL-BENZENE (mg/L) | XYLENES (mg/L) | TOTAL BTEX (mg/L) | MTBE (mg/L) | NAPH-THALENE (mg/L) |
|---|---|---|---|---|---|---|---|---|
| MW-1 | 4/5/2017 | 0.097 | 0.483 | 0.256 | 1.55 | 2.386 | 0.304 | 0.032 |
| | 7/12/2017 | **0.208** | 1.54 | 0.711 | 3.98 | 6.439 | 0.504 | 0.367 |
| | 11/29/2017 | **0.238** | 2.33 | 1.15 | 7.42 | 11.138 | **0.660** | **1.59** |
| | 3/28/2018 | **0.300** | 2.75 | 1.37 | 9.07 | 13.49 | 0.510 | **1.35** |
| | 8/7/2018 | **0.277** | 2.41 | 1.40 | 9.82 | 13.907 | 0.185 | **1.71** |
| | 1/30/2019 | NL | NL | NL | NL | NL | NL | NL |
| | 3/14/2019 | DESTROYED | | | | | | |
| ***SSCAL - GRP - POC*** | | ***0.138*** | ***27.6*** | ***19.3*** | ***175*** | **--** | ***0.552*** | ***0.552*** |
| MW-2 | 4/5/2017 | 0.002 | <0.001 | <0.001 | 0.005 | 0.007 | <0.001 | 0.005 |
| | 7/12/2017 | 0.026 | 0.001 | 0.009 | 0.012 | 0.048 | 0.006 | 0.029 |
| | 11/29/2017 | 0.025 | 0.001 | 0.016 | 0.020 | 0.062 | 0.007 | 0.100 |
| | 3/28/2018 | 0.010 | 0.001 | 0.007 | 0.008 | 0.026 | 0.003 | 0.160 |
| | 8/7/2018 | 0.007 | 0.002 | 0.009 | 0.009 | 0.027 | 0.002 | 0.170 |
| | 11/6/2018 | 0.014 | 0.008 | 0.007 | 0.009 | 0.038 | 0.002 | 0.235 |
| | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | 0.0041 | <0.0005 | 0.00054 | <0.003 | 0.00464 | 0.0011 | 0.032 |
| | 6/18/2019 | <0.0005 | <0.0005 | <0.0005 | <0.003 | BDL | <0.0005 | 0.0054 |
| | 10/31/2019 | 0.0069 | <0.0005 | 0.0015 | <0.003 | 0.0084 | 0.0013 | 0.051 |
| | 1/30/2020 | 0.0037 | <0.0005 | 0.0014 | <0.003 | 0.0051 | 0.00083 | 0.060 |
| | 4/2/2020 | 0.00091 | <0.0005 | <0.0005 | <0.003 | 0.00091 | 0.00064 | 0.011 |
| ***SSCAL - GRP - POC*** | | ***0.119*** | ***23.7*** | ***16.6*** | ***175*** | **--** | ***0.475*** | ***0.475*** |
| MW-3 | 4/5/2017 | **1.90** | 0.209 | 2.41 | 4.30 | 8.819 | 0.123 | 0.061 |
| | 7/13/2017 | **2.06** | 0.074 | 2.18 | 3.17 | 7.484 | 0.109 | 0.186 |
| | 11/29/2017 | **1.63** | 0.338 | 2.94 | 6.27 | 11.178 | 0.210 | **1.32** |
| | 3/28/2018 | **2.09** | 0.173 | 3.26 | 5.58 | 11.103 | 0.102 | **0.542** |
| | 5/17/2018 | **1.83** | 0.275 | 2.36 | 5.44 | 9.905 | **0.229** | **0.732** |
| | 11/6/2018 | **1.54** | 0.231 | 3.66 | 8.49 | 13.921 | 0.081 | **1.00** |
| | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | **1.2** | 0.35 | 2.6 | 6.1 | 10.25 | 0.16 | **0.97** |
| | 6/18/2019 | **1.3** | 0.34 | 2.8 | 6.9 | 11.34 | 0.18 | **1.1** |
| | 10/31/2019 | **0.61** | 0.14 | 1.3 | 4.2 | 6.25 | 0.099 | **0.58** |
| | 1/30/2020 | **0.55** | 0.11 | 1.3 | 3.3 | 5.26 | 0.097 | **0.76** |
| | 4/2/2020 | **1.0** | 0.095 | 2.3 | 4.1 | 7.495 | 0.14 | **0.51** |
| ***SSCAL - GRP - POC*** | | ***0.054*** | ***10.8*** | ***7.59*** | ***108*** | **--** | ***0.217*** | ***0.217*** |
| MW-4 | 4/5/2017 | **0.814** | 0.052 | 1.17 | 3.58 | 5.616 | 0.035 | **0.216** |
| | 7/12/2017 | **0.487** | 0.059 | 0.537 | 1.52 | 2.603 | 0.008 | 0.051 |
| | 11/29/2017 | **0.519** | 0.064 | 0.900 | 2.75 | 4.233 | 0.018 | **0.345** |
| | 3/28/2018 | **0.360** | 0.043 | 0.602 | 1.91 | 2.915 | 0.005 | 0.055 |
| | 5/17/2018 | **0.752** | 0.099 | 1.56 | 5.42 | 7.831 | 0.031 | **0.399** |
| | 8/7/2018 | **0.752** | 0.095 | 1.73 | 6.30 | 8.877 | 0.028 | **0.344** |
| | 11/6/2018 | **1.52** | 0.132 | 2.26 | 8.18 | 12.092 | 0.032 | **0.678** |
| | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | **2.3** | 0.25 | 2.2 | 8.1 | 12.85 | **0.10** | **0.60** |
| | 6/18/2019 | **2.7** | 0.34 | 2.3 | 8.8 | 14.14 | **0.13** | **0.50** |
| | 10/31/2019 | **4.0** | 0.58 | 2.7 | 11.1 | 18.38 | **0.17** | **0.54** |
| | 1/30/2020 | **5.1** | 0.63 | 2.9 | 11.6 | 20.23 | **0.19** | **0.68** |
| | 4/2/2020 | **5.1** | 0.57 | 3.1 | 13.5 | 22.27 | **0.18** | **0.60** |
| ***SSCAL - GRP - POC*** | | ***0.023*** | ***4.66*** | ***3.27*** | ***46.6*** | **--** | ***0.093*** | ***0.093*** |
| MW-5 | 7/13/2017 | **36.0** | **47.7** | 4.92 | 25.1 | 113.72 | **0.991** | **0.883** |
| | 11/29/2017 | **FP** | **FP** | **FP** | **FP** | **FP** | **FP** | **FP** |
| | 3/27/2018 | **41.2** | **84.0** | 9.88 | 58.4 | 193.48 | **0.720** | **1.03** |
| | 8/7/2018 | **25.5** | **57.2** | 7.84 | 46.4 | 136.94 | 0.316 | **2.21** |
| | 11/6/2018 | **27.2** | **41.8** | 4.34 | 27.3 | 100.64 | 0.180 | **1.60** |
| | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | **13.7** | 18.5 | 1.9 | 11.2 | 45.3 | 0.19 | **0.99** |
| | 6/18/2019 | **18.8** | 24.2 | 2.0 | 11.9 | 56.9 | 0.28 | **0.80** |
| | 10/31/2019 | **6.7** | 9.2 | 1.2 | 8.0 | 25.1 | 0.11 | 0.41 |
| | 1/30/2020 | **18.9** | **29.5** | 2.7 | 16.8 | 67.9 | 0.26 | **1.2** |
| | 4/2/2020 | **16.3** | **27.4** | 2.7 | 16.5 | 62.9 | 0.20 | **0.77** |
| ***SSCAL - GRP - POC*** | | ***0.124*** | ***24.7*** | ***17.3*** | ***175*** | **--** | ***0.494*** | ***0.494*** |

**TABLE 3**
**GROUNDWATER ANALYTICAL SUMMARY**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| SAMPLE I.D. | SAMPLE DATE | BENZENE (mg/L) | TOLUENE (mg/L) | ETHYL-BENZENE (mg/L) | XYLENES (mg/L) | TOTAL BTEX (mg/L) | MTBE (mg/L) | NAPH-THALENE (mg/L) |
|---|---|---|---|---|---|---|---|---|
| MW-6 | 7/13/2017 | <0.001 | 0.003 | <0.001 | <0.003 | 0.003 | <0.001 | <0.005 |
| | 11/29/2017 | <0.001 | <0.001 | <0.001 | <0.003 | BDL | <0.001 | <0.005 |
| | 3/28/2018 | <0.001 | <0.001 | <0.001 | <0.003 | BDL | <0.001 | <0.005 |
| | 8/7/2018 | <0.001 | 0.001 | <0.001 | <0.003 | 0.001 | <0.001 | <0.005 |
| | 1/30/2019 | NL | NL | NL | NL | NL | NL | NL |
| | 3/14/2019 | DESTROYED | | | | | | |
| ***SSCAL - GRP - POC*** | | ***0.087*** | ***17.400*** | ***12.2*** | ***174*** | **--** | ***0.348*** | ***0.348*** |
| MW-7 | 7/13/2017 | **0.142** | 0.202 | 0.128 | 0.351 | 0.823 | 0.006 | 0.017 |
| | 11/29/2017 | **0.113** | 0.067 | 0.117 | 0.377 | 0.674 | 0.007 | **0.042** |
| | 3/28/2018 | **0.192** | 0.108 | 0.148 | 0.569 | 1.017 | 0.009 | 0.016 |
| | 8/7/2018 | **0.420** | 0.260 | 0.316 | 1.30 | 2.296 | 0.010 | **0.061** |
| | 11/6/2018 | **0.551** | 0.439 | 0.375 | 1.55 | 2.915 | 0.007 | **0.100** |
| | 1/30/2019 | NL | NL | NL | NL | NL | NL | NL |
| | 3/14/2019 | DESTROYED | | | | | | |
| ***SSCAL - GRP - POC*** | | ***0.010*** | ***2.07*** | ***1.45*** | ***20.7*** | **--** | ***0.041*** | ***0.041*** |
| MW-8 | 7/13/2017 | <0.001 | 0.002 | 0.009 | 0.060 | 0.071 | <0.001 | 0.011 |
| | 3/28/2018 | <0.001 | <0.001 | 0.003 | 0.026 | 0.029 | <0.001 | <0.005 |
| | 8/7/2018 | 0.002 | 0.005 | 0.005 | 0.055 | 0.067 | <0.001 | 0.007 |
| | 1/30/2019 | NL | NL | NL | NL | NL | NL | NL |
| | 3/14/2019 | DESTROYED | | | | | | |
| ***SSCAL - GRP - POC*** | | ***0.010*** | ***2.05*** | ***1.43*** | ***20.5*** | **--** | ***0.041*** | ***0.041*** |
| MW-9 | 7/13/2017 | **0.813** | 0.026 | 0.440 | 0.921 | 2.200 | 0.011 | 0.078 |
| | 11/29/2017 | **0.468** | 0.011 | 0.391 | 0.747 | 1.617 | 0.007 | 0.025 |
| | 3/28/2018 | **0.610** | 0.015 | 0.403 | 0.781 | 1.809 | 0.010 | 0.036 |
| | 8/7/2018 | **0.468** | 0.013 | 0.364 | 0.681 | 1.526 | 0.004 | 0.041 |
| | 11/6/2018 | **0.655** | 0.012 | 0.379 | 0.740 | 1.786 | 0.002 | 0.029 |
| | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | **0.56** | 0.013 | 0.30 | 0.60 | 1.473 | 0.0074 | 0.037 |
| | 6/18/2019 | **0.51** | 0.0094 | 0.25 | 0.46 | 1.2294 | 0.0054 | 0.026 |
| | 10/31/2019 | **0.46** | 0.0083 | 0.27 | 0.59 | 1.3283 | 0.0046 | 0.031 |
| | 1/30/2020 | **0.38** | 0.0069 | 0.15 | 0.35 | 0.8869 | <0.0050 | 0.030 |
| | 4/2/2020 | **0.63** | 0.012 | 0.31 | 0.67 | 1.622 | 0.0076 | 0.046 |
| ***SSCAL - GRP - POC*** | | ***0.079*** | ***15.7*** | ***11.0*** | ***157*** | **--** | ***0.314*** | ***0.314*** |
| MW-10 | 7/13/2017 | **2.38** | 3.70 | **5.06** | 21.7 | 32.84 | **0.140** | **1.92** |
| | 11/29/2017 | **1.69** | 2.24 | 4.11 | 19.0 | 27.04 | **0.142** | **0.894** |
| | 3/27/2018 | **1.96** | 1.85 | **4.52** | 20.4 | 28.73 | **0.216** | **0.913** |
| | 8/6/2018 | **0.986** | 0.791 | 2.64 | 12.7 | 17.117 | **0.118** | **0.821** |
| | 11/5/2018 | **1.33** | 0.740 | 2.40 | 12.0 | 16.470 | 0.093 | **0.975** |
| | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | **2.0** | 1.1 | 2.1 | 9.3 | 14.5 | **0.23** | **0.62** |
| | 6/18/2019 | **1.7** | 0.73 | 1.7 | 8.2 | 12.33 | **0.23** | **0.60** |
| | 10/31/2019 | **0.14** | 0.074 | 0.28 | 1.6 | 2.094 | 0.020 | **0.13** |
| | 1/30/2020 | **1.3** | 0.49 | 1.5 | 7.7 | 10.99 | **0.17** | **0.63** |
| | 4/2/2020 | **1.7** | 0.63 | 1.9 | 9.8 | 14.03 | **0.18** | **0.55** |
| ***SSCAL - GRP - POC*** | | ***0.029*** | ***5.88*** | ***4.12*** | ***58.8*** | **--** | ***0.118*** | ***0.118*** |
| MW-11 | 7/13/2017 | **4.08** | **37.2** | **5.92** | 27.9 | 75.10 | <0.001 | **0.942** |
| | 11/29/2017 | **2.92** | **26.6** | 4.67 | 22.4 | 56.59 | <0.001 | **1.24** |
| | 3/27/2018 | **3.42** | **39.0** | **6.88** | 34.4 | 83.70 | <0.001 | **1.16** |
| | 5/17/2018 | **0.712** | 7.08 | 1.65 | 7.75 | 17.192 | <0.001 | **0.628** |
| | 8/6/2018 | **2.11** | **18.5** | 2.90 | 14.8 | 38.31 | <0.001 | **0.730** |
| | 11/5/2018 | **3.00** | **28.2** | 4.54 | 23.4 | 59.14 | 0.001 | **1.22** |
| | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | **2.2** | **20.3** | 2.4 | 11.9 | 36.8 | <0.050 | **1.0** |
| | 6/18/2019 | **2.4** | **22.9** | 2.7 | 12.8 | 40.8 | <0.10 | **0.78** |
| | 10/31/2019 | **1.4** | **10.4** | 1.6 | 9.2 | 22.6 | <0.050 | **0.80** |
| | 1/30/2020 | **1.7** | **11.9** | 1.8 | 9.4 | 24.8 | <0.050 | **0.97** |
| | 4/2/2020 | **2.1** | **19.5** | 2.5 | 12.7 | 36.8 | <0.050 | **0.74** |
| ***SSCAL - GRP - POC*** | | ***0.038*** | ***7.60*** | ***5.32*** | ***76.0*** | **--** | ***0.152*** | ***0.152*** |

**TABLE 3**
**GROUNDWATER ANALYTICAL SUMMARY**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| SAMPLE I.D. | SAMPLE DATE | BENZENE (mg/L) | TOLUENE (mg/L) | ETHYL-BENZENE (mg/L) | XYLENES (mg/L) | TOTAL BTEX (mg/L) | MTBE (mg/L) | NAPH-THALENE (mg/L) |
|---|---|---|---|---|---|---|---|---|
| VEW-1 | 7/13/2017 | **3.64** | 5.84 | 2.43 | 9.49 | 21.4 | 0.014 | **0.583** |
| | 8/7/2018 | **3.24** | 5.90 | 2.02 | 8.47 | 19.63 | 0.001 | **0.341** |
| | 11/5/2018 | **4.50** | **8.71** | 2.77 | 13.1 | 29.08 | 0.006 | **0.401** |
| | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 6/18/2019 | **4.4** | 5.9 | 1.5 | 6.3 | 18.1 | <0.025 | **0.35** |
| | 10/31/2019 | **3.8** | 3.1 | 0.89 | 6.2 | 13.99 | <0.012 | **0.29** |
| | 1/30/2020 | **4.4** | 3.1 | 1.1 | 5.8 | 14.4 | <0.012 | **0.32** |
| | 4/2/2020 | **4.3** | 4.9 | 1.3 | 7.0 | 17.5 | <0.012 | **0.33** |
| ***SSCAL - GRP - POC*** | | ***0.0432*** | ***8.64*** | ***6.05*** | ***86.4*** | **--** | ***0.173*** | ***0.173*** |
| RW-1 | 1/30/2019 | **2.64** | 0.815 | 4.81 | 3.38 | 11.645 | 0.057 | **2.38** |
| | 3/14/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 6/18/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 10/31/2019 | **FP** | **FP** | **FP** | **FP** | **FP** | **FP** | **FP** |
| | 1/30/2020 | **FP** | **FP** | **FP** | **FP** | **FP** | **FP** | **FP** |
| | 4/2/2020 | **FP** | **FP** | **FP** | **FP** | **FP** | **FP** | **FP** |
| ***SSCAL - GRP - POC*** | | ***0.0432*** | ***8.64*** | ***6.05*** | ***86.4*** | **--** | ***0.173*** | ***0.173*** |
| RW-2 | 1/30/2019 | **0.625** | 1.84 | 0.235 | 2.28 | 4.980 | <0.001 | *0.103* |
| | 3/14/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 6/18/2019 | **3.0** | 7.7 | 1.4 | 5.7 | 17.8 | <0.050 | **0.30** |
| | 10/31/2019 | **1.9** | 4.0 | 1.0 | 4.7 | 11.6 | <0.012 | **0.35** |
| | 1/30/2020 | **2.0** | 3.9 | 0.92 | 4.4 | 11.22 | <0.010 | **0.28** |
| | 4/2/2020 | **1.9** | 3.5 | 1.0 | 4.6 | 11.0 | <0.012 | **0.25** |
| ***SSCAL - GRP - POC*** | | ***0.054*** | ***10.8*** | ***7.59*** | ***108*** | **--** | ***0.217*** | ***0.217*** |
| RW-3 | 1/30/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 6/18/2019 | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 10/31/2019 | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 1/30/2020 | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 4/2/2020 | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| ***SSCAL - GRP - POC*** | | ***0.0432*** | ***8.64*** | ***6.05*** | ***86.4*** | **--** | ***0.173*** | ***0.173*** |
| RW-4 | 1/30/2019 | **2.65** | 8.81 | 4.54 | 26.4 | 42.40 | 0.072 | **4.69** |
| | 3/14/2019 | **2.2** | 3.3 | 1.8 | 9.0 | 16.3 | 0.058 | 0.45 |
| | 6/18/2019 | **2.3** | 1.4 | 1.8 | 7.6 | 13.1 | 0.054 | 0.38 |
| | 10/31/2019 | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 1/30/2020 | **1.3** | 0.42 | 1.1 | 3.8 | 6.62 | 0.039 | **0.50** |
| | 4/2/2020 | **1.8** | 0.54 | 1.6 | 3.5 | 7.44 | 0.045 | 0.39 |
| ***SSCAL - GRP - POC*** | | ***0.124*** | ***24.7*** | ***17.3*** | ***175*** | **--** | ***0.494*** | ***0.494*** |
| RW-5 | 1/30/2019 | **0.584** | 0.037 | 0.608 | 1.18 | 2.409 | 0.074 | 0.196 |
| | 3/14/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 6/18/2019 | **0.41** | 0.022 | 0.70 | 1.5 | 2.632 | 0.079 | **0.24** |
| | 10/31/2019 | **0.41** | 0.023 | 0.57 | 1.6 | 2.603 | 0.067 | **0.38** |
| | 1/30/2020 | **0.48** | 0.026 | 0.80 | 1.8 | 3.106 | 0.074 | **0.30** |
| | 4/2/2020 | **0.59** | 0.032 | 1.1 | 2.3 | 4.022 | 0.069 | **0.37** |
| ***SSCAL - GRP - POC*** | | ***0.054*** | ***10.8*** | ***7.59*** | ***108*** | **--** | ***0.217*** | ***0.217*** |
| RW-6 | 1/30/2019 | **5.05** | 11.8 | 1.83 | 10.6 | 29.28 | 0.061 | **0.723** |
| | 3/14/2019 | **3.6** | 7.4 | 1.2 | 6.5 | 18.7 | <0.025 | **0.51** |
| | 6/18/2019 | **3.9** | 7.4 | 1.2 | 6.8 | 19.3 | 0.045 | **0.42** |
| | 10/31/2019 | **4.9** | 10.3 | 1.1 | 7.3 | 23.6 | 0.053 | **1.4** |
| | 1/30/2020 | **4.4** | 8.7 | 0.55 | 6.5 | 20.15 | 0.060 | **0.54** |
| | 4/2/2020 | **2.9** | 5.6 | 0.92 | 6.9 | 16.32 | <0.050 | **0.54** |
| ***SSCAL - GRP - POC*** | | ***0.101*** | ***20.2*** | ***14.1*** | ***175*** | **--** | ***0.404*** | ***0.404*** |
| RW-7 | 1/30/2019 | **7.3** | 9.18 | 3.0 | 12.8 | 32.28 | **0.714** | *0.40* |
| | 3/14/2019 | **4.9** | 5.2 | 1.4 | 5.5 | 17.0 | **0.65** | 0.29 |
| | 6/18/2019 | **3.4** | 2.7 | 0.89 | 3.1 | 10.09 | **0.52** | 0.16 |
| | 10/31/2019 | **3.6** | 3.8 | 1.0 | 4.6 | 13.0 | **0.48** | 0.25 |
| | 1/30/2020 | **7.9** | 10.2 | 1.3 | 7.7 | 27.1 | **1.1** | 0.36 |
| | 4/2/2020 | **8.8** | 13.0 | 2.1 | 9.7 | 33.6 | **1.2** | **0.46** |
| ***SSCAL - GRP - POC*** | | ***0.101*** | ***20.2*** | ***14.1*** | ***175*** | **--** | ***0.404*** | ***0.404*** |

**TABLE 3**
**GROUNDWATER ANALYTICAL SUMMARY**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| SAMPLE I.D. | SAMPLE DATE | BENZENE (mg/L) | TOLUENE (mg/L) | ETHYL-BENZENE (mg/L) | XYLENES (mg/L) | TOTAL BTEX (mg/L) | MTBE (mg/L) | NAPH-THALENE (mg/L) |
|---|---|---|---|---|---|---|---|---|
| RW-8 | 1/30/2019 | **1.9** | 1.32 | 0.96 | 10.6 | 14.78 | 0.084 | *0.314* |
| | 3/14/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 6/18/2019 | **0.66** | 0.32 | 1.2 | 4.0 | 6.18 | 0.026 | 0.37 |
| | 10/31/2019 | **3.1** | 1.8 | 1.8 | 8.7 | 15.4 | 0.056 | **0.65** |
| | 1/30/2020 | **0.99** | 0.94 | 0.47 | 2.5 | 4.90 | 0.012 | 0.27 |
| | 4/2/2020 | **0.79** | 0.17 | 1.0 | 2.0 | 3.96 | 0.014 | 0.35 |
| ***SSCAL - GRP - Source*** | | ***0.124*** | ***24.70*** | ***17.3*** | ***175*** | **--** | ***0.494*** | ***0.494*** |
| RW-9 | 1/30/2019 | **9.1** | **34.0** | 4.94 | 31.9 | 79.94 | 0.026 | ***0.514*** |
| | 3/14/2019 | **3.0** | 13.9 | 1.6 | 9.3 | 27.8 | <0.025 | 0.35 |
| | 6/18/2019 | **3.2** | 10.5 | 2.1 | 10.7 | 26.5 | <0.050 | 0.47 |
| | 10/31/2019 | **4.5** | 11.8 | 2.0 | 12.3 | 30.6 | <0.050 | **0.91** |
| | 1/30/2020 | **6.0** | 12.2 | 1.8 | 11.3 | 31.3 | <0.050 | **0.75** |
| | 4/2/2020 | **0.66** | 1.2 | 0.95 | 4.8 | 7.61 | <0.010 | 0.35 |
| ***SSCAL - GRP - Source*** | | ***0.124*** | ***24.70*** | ***17.3*** | ***175*** | **--** | ***0.494*** | ***0.494*** |
| AS-1 | 1/10/2019 | NS | NS | NS | NS | NS | NS | NS |
| | 3/14/2019 | **3.3** | 4.0 | 1.3 | 7.5 | 16.1 | 0.0015 | **0.51** |
| | 6/18/2019 | **4.0** | 7.0 | 1.6 | 8.5 | 21.1 | <0.012 | **0.55** |
| | 10/31/2019 | **3.3** | 2.0 | 1.7 | 9.4 | 16.4 | <0.012 | **0.53** |
| | 1/30/2020 | **3.1** | 1.5 | 1.6 | 7.5 | 13.7 | <0.012 | **0.54** |
| | 4/2/2020 | **3.1** | 2.9 | 1.7 | 8.9 | 16.6 | <0.012 | **0.49** |
| ***SSCAL - GRP - POC*** | | ***0.038*** | ***7.60*** | ***5.32*** | ***76.0*** | **--** | ***0.152*** | ***0.152*** |
| AS-2 | 1/10/2019 | **42.8** | **63.2** | 3.72 | 17.9 | 127.62 | **1.71** | **0.963** |
| | 3/14/2019 | **30.4** | **34.9** | 2.0 | 9.5 | 76.8 | **1.2** | **0.64** |
| | 6/18/2019 | **29.3** | **38.3** | 2.7 | 12.9 | 83.2 | **1.2** | **1.0** |
| | 10/31/2019 | **2.5** | 6.6 | 1.1 | 7.2 | 17.4 | 0.40 | **1.1** |
| | 1/30/2020 | **0.96** | 2.9 | 0.41 | 3.2 | 7.47 | 0.26 | **0.96** |
| | 4/2/2020 | **1.1** | 3.6 | 0.47 | 4.8 | 9.97 | 0.42 | **1.4** |
| ***SSCAL - GRP - POC*** | | ***0.124*** | ***24.7*** | ***17.3*** | ***175*** | **--** | ***0.494*** | ***0.494*** |
| AS-3 | 1/10/2019 | **37.9** | **64.8** | 3.66 | 18.7 | 125.06 | **3.84** | **0.813** |
| | 3/14/2019 | **20.1** | **28.2** | 2.1 | 10.3 | 60.7 | **4.4** | **0.53** |
| | 6/18/2019 | **8.1** | 17.4 | 1.8 | 7.9 | 35.2 | **2.5** | **0.66** |
| | 10/31/2019 | **0.67** | 1.9 | 0.44 | 2.5 | 5.51 | 0.18 | 0.30 |
| | 1/30/2020 | **0.33** | 0.82 | 0.093 | 1.6 | 2.843 | 0.17 | 0.14 |
| | 4/2/2020 | **0.62** | 1.2 | 0.065 | 1.4 | 3.285 | **1.0** | 0.17 |
| ***SSCAL - GRP - POC*** | | ***0.124*** | ***24.7*** | ***17.3*** | ***175*** | **--** | ***0.494*** | ***0.494*** |
| AS-4 | 1/10/2019 | **9.97** | **65.6** | 3.47 | 17.5 | 96.54 | 0.044 | **0.905** |
| | 3/14/2019 | **5.9** | **28.8** | 1.7 | 8.3 | 44.7 | 0.049 | **0.45** |
| | 6/18/2019 | **10.7** | **36.9** | 2.3 | 9.9 | 59.8 | <0.12 | **0.59** |
| | 10/31/2019 | **13.9** | **34.8** | 2.7 | 15.3 | 66.7 | 0.36 | **1.2** |
| | 1/30/2020 | **15.1** | **48.1** | 5.5 | 29.8 | 98.5 | **0.44** | **2.6** |
| | 4/2/2020 | **11.4** | **40.5** | 3.1 | 16.2 | 71.2 | 0.19 | **0.86** |
| ***SSCAL - GRP - POC*** | | ***0.101*** | ***20.2*** | ***14.1*** | ***175*** | **--** | ***0.404*** | ***0.404*** |
| AS-5 | 1/30/2019 | **14.6** | **47.2** | 4.96 | 25.6 | 92.36 | <0.001 | ***1.02*** |
| | 3/14/2019 | **9.7** | **21.1** | 1.4 | 7.3 | 39.5 | <0.025 | **0.34** |
| | 6/18/2019 | **9.2** | **14.6** | 0.59 | 5.9 | 30.29 | <0.10 | **0.34** |
| | 10/31/2019 | **7.8** | 8.2 | 0.47 | 6.3 | 22.77 | <0.025 | **0.34** |
| | 1/30/2020 | **6.9** | 4.5 | 0.76 | 5.7 | 17.86 | <0.10 | **0.68** |
| | 4/2/2020 | **6.9** | 4.7 | 0.84 | 5.4 | 17.84 | <0.050 | **0.37** |
| ***SSCAL - GRP - POC*** | | ***0.054*** | ***10.8*** | ***7.59*** | ***108*** | **--** | ***0.217*** | ***0.217*** |
| DPT-1-TMW | 5/19/2020 | 0.078 | 0.00098 | 0.0012 | 0.022 | 0.102 | 0.050 | <0.0010 |
| DPT-2-TMW | 5/19/2020 | <0.00050 | <0.00050 | <0.00050 | <0.0030 | BDL | <0.00050 | <0.0010 |
| DPT-3-TMW | 5/19/2020 | <0.00050 | <0.00050 | <0.00050 | <0.0030 | BDL | <0.00050 | <0.0010 |
| DPT-4-TMW | 5/20/2020 | <0.00050 | <0.00050 | <0.00050 | <0.0030 | BDL | <0.00050 | <0.0010 |
| DPT-5-TMW | 5/19/2020 | <0.00050 | <0.00050 | <0.00050 | <0.0030 | BDL | <0.00050 | <0.0010 |
| DPT-6-TMW | 5/19/2020 | <0.00050 | <0.00050 | <0.00050 | <0.0030 | BDL | <0.00050 | <0.0010 |
| DPT-7-TMW | 5/19/2020 | <0.00050 | <0.00050 | <0.00050 | <0.0030 | BDL | <0.00050 | <0.0010 |
| DPT-8-TMW | 5/20/2020 | <0.00050 | <0.00050 | <0.00050 | <0.0030 | BDL | <0.00050 | <0.0010 |
| DPT-9-TMW | 5/20/2020 | <0.00050 | <0.00050 | <0.00050 | <0.0030 | BDL | <0.00050 | <0.0010 |
| DPT-10-TMW | 5/20/2020 | 0.0021 | 0.88 | 0.78 | 4.9 | 6.562 | <0.00050 | 0.32 |

**TABLE 3**
**GROUNDWATER ANALYTICAL SUMMARY**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| SAMPLE I.D. | SAMPLE DATE | BENZENE (mg/L) | TOLUENE (mg/L) | ETHYL-BENZENE (mg/L) | XYLENES (mg/L) | TOTAL BTEX (mg/L) | MTBE (mg/L) | NAPH-THALENE (mg/L) |
|---|---|---|---|---|---|---|---|---|
| ***DUPLICATES*** | | | | | | | | |
| DUP (AS-5) | 1/30/2019 | 14.7 | 48.8 | 5.04 | 29.1 | 97.64 | <0.001 | *0.86* |
| DUP (MW-5) | 3/14/2019 | 11.1 | 13.9 | 1.3 | 7.7 | 34.0 | 0.19 | 0.62 |
| DUP (MW-5) | 6/18/2019 | 17.4 | 23.0 | 1.9 | 11.5 | 53.8 | 0.24 | 0.68 |
| DUP (MW-10) | 10/31/2019 | 0.16 | 0.082 | 0.30 | 1.6 | 2.142 | 0.022 | 0.17 |
| DUP (AS-3) | 1/30/2020 | 0.32 | 0.84 | 0.095 | 1.7 | 2.955 | 0.17 | 0.15 |
| DUP (MW-3) | 4/2/2020 | 1.1 | 0.10 | 2.4 | 4.3 | 7.90 | 0.16 | 0.57 |

*Notes:* *mg/L - milligrams per liter*
*BTEX, MTBE, and Naphthalene analysis conducted per EPA Method 8260*
*SSCAL - Site Specific Corrective Action Level*
*NS - Not sampled*
*NL - Not located*
*POC - Point of Compliance*
*FP - Free product*
*Values in italics are estimated values below the detection limit and above the method dectection limit*
***Bold*** *type indicates concentration exceeds SSCAL (DPT water samples not compared to SSCALs)*

*Source(s):* *Environmental Management & Consulting, Inc. (EMC)*
*PPM Consultants, Inc.*
*PPM Project No. 466161-MCAP*

**TABLE 4**
**ESTIMATED HYDROCARBON REMOVAL**
**FORMER RACEWAY STORE NO. 850**
**AUBURN, ALABAMA**

| DATE OF EVENT | DURATION OF EVENT (hours) | AIR SPARGE POINTS | RECOVERY POINTS | RANGE OF INFLUENT HYDROCARBON CONCENTRATIONS (ppmv) | GALLONS OF LIQUID RECOVERED (gallons) | TOTAL HYDROCARBONS RECOVERED (lbs) | EQUIVALENT HYDROCARBONS (gallons) |
|---|---|---|---|---|---|---|---|
| 8/22/2017 | 8 | -- | MW-5, MW-10, MW-11 | -- | 196 | 12.3 | 2.0 |
| 10/12/2017 | 8 | -- | MW-5, MW-10, MW-11 | 274 - 2,149 | 750 | 6.9 | 1.1 |
| 11/9/2017 | 8 | -- | MW-5, MW-10, MW-11 | 343 - 1,365 | 600 | 7.9 | 1.3 |
| 12/7/2017 | 8 | -- | MW-5, MW-10, MW-11 | 186 - 425 | 450 | 3.6 | 0.6 |
| 1/11/2018 | 8 | -- | MW-5, MW-10, MW-11 | 859 - 1,677 | 575 | 9.6 | 1.6 |
| 2/7/2018 | 8 | -- | MW-5, MW-10, MW-11 | 536 - 711 | 575 | 5.3 | 0.9 |
| 3/28/2018 | 8 | -- | MW-5, MW-10, MW-11 | 220 - 490 | 275 | 3.6 | 0.6 |
| 4/11/2018 | 8 | -- | MW-5, MW-10, MW-11 | 395 - 586 | 500 | 7.0 | 1.1 |
| 5/9/2018 | 8 | -- | MW-5, MW-10, MW-11 | 293 - 507 | 475 | 4.8 | 0.8 |
| 8/7/2018 | 8 | -- | MW-5, MW-10, MW-11 | 868 - 666 | 550 | 7.5 | 1.2 |
| 11/6/2018 | 8 | -- | MW-5, MW-10, MW-11 | 212 - 469 | 400 | 3.6 | 0.6 |
| 4/3/2019 | 8 | AS-2, AS-3 | MW-5, RW-6, RW-7, RW-8, RW-9 | 5,540 - 10,800 | 476 | 79.8 | 13.0 |
| 7/2/2019 | 8 | AS-2, AS-3 | MW-5, RW-6, RW-7, RW-8, RW-9 | 5,250 - 12,410 | 400 | 56.0 | 9.1 |
| 10/28/2019 | 8 | AS-2, AS-3 | AS-4, MW-5, RW-6, RW-7, RW-9 | 9,430 - 17,400 | 350 | 212.3 | 34.5 |
| 1/15/2020 | 8 | AS-2, AS-3 | MW-5, RW-6, RW-7, RW-8, RW-9 | 5,140 - 13,500 | 475 | 102.9 | 16.7 |
| 4/14/2020 | 8 | AS-2, AS-3 | AS-4, MW-5, RW-6, RW-7, RW-9 | 3,680 - 13,700 | 600 | 62.9 | 10.2 |
| | | | | Cumulative Amounts | 7,647 | 585.9 | 95.0 |

*Notes:* *ppmv - parts per million by volume*
*lbs - pounds*

*Source:* *Environmental Management & Consulting, Inc. (EMC)*
*PPM Consultants, Inc.*
*PPM Project No. 466161-MCAP*