BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

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1 INTRODUCTION

The Georgia Ports Authority (GPA) owns and operates a barge-terminal in Bainbridge, Georgia. A railroad within the property, that runs parallel to the Spring Creek Road, divides the site into North and South parcels. During a Phase I assessment, conducted in 1993, an engineering firm discovered pesticide contamination at the site. Based on additional investigations, EPD listed the site on the state Hazardous Site Inventory (HSI) in 1994. Subsequently, additional site investigations progressively revealed soil contamination in other areas. In compliance with the Georgia EPD regulations, GPA prepared a corrective action plan (CAP) to address the on-site liabilities.

Initially, GPA understood that 720 cubic yards of contaminated soil required remediation in the North Parcel. Ultimately, however, 4,000 cubic yards of contaminated soil was excavated from the North Parcel and transferred to a local landfill. In 2011, GPA divested the North Parcel. In the South Parcel, additional soil investigations indicated the presence of more pesticide contamination. In an area adjacent to a warehouse, known as the Rock Salt Warehouse area (RSW), located in the South Parcel, soil contamination extended much deeper than original defined. Soil contamination was also detected beneath another warehouse located to the east of the RSW. Additionally, one of several samples collected along the drainage ditch/swale indicated presence of soil contamination. Consequently, excavation and disposal of an vast quantities of soil material is impractical and cost-prohibitive.

Even if all contaminated soils were successfully removed from the entire site, groundwater contamination would remain persistent in both the North and South parcels, requiring groundwater remediation and long-term monitoring. Based on a preliminary investigation, however, it is apparent that the groundwater contamination originated from an off-site source located hydraulically upgradient of GPA's North Parcel.

Considering the prevailing site conditions, GPA has developed an alternative technical approach under the Georgia Voluntary Remediation Program (VRP). The VRP approach entails engineering controls to address soil and groundwater contamination in a more cost effective and timely manner. Once approved, the VRP standards will supersede the CAP requirements. The completed

Voluntary Investigation and Remediation Plan (VIRP) and the application checklist are provided as Attachment A. The following sections address the elements of the VIRP application criteria.

1.1 SITE LOCATION

The Georgia Ports Authority (GPA) Bainbridge Terminal facility (site) is located at 1321 Spring Creek Road in Bainbridge, Decatur County, Georgia. The facility was constructed in 1958 and is located on an approximately 65-acre parcel at the Apalachicola-Chattahoochee-Flint Waterway, or Tri-Rivers System in Decatur County, Georgia.

The facilities at the site consist of a bulkhead used for loading and unloading goods from barges, an office building, a maintenance shed, several warehouses, storage tanks, a railroad spur, and a forested section. Figure 1-1 is a site layout map that illustrates the North and South parcels. Until Agrium purchased a portion of GPA property on July 31, 2011, the North Parcel extended further towards the northeast between Spring Creek road and the railroad to Parcel 20B, currently owned by the City of Bainbridge. Figure 1-2 presents a milestone chart with key terminal activities pertaining to the environmental issues at the site.

GPA has historically utilized the facility to ship and receive a variety of bulk cargo via barge traffic as an economical alternative to other methods of transport in the region. The terminal was historically used for the storage of various agricultural products and commodities. Long- and short-term storage is provided in various buildings which collectively provide approximately 93,000 square feet (9,292 square meters) of covered storage. Currently the facility handles: nitrogen solution, gypsum, ammonium sulfate, urea, cottonseed, and cypress bark mulch. CSX Transportation provides Class I rail service from a railroad spur located at the facility.

1.2 LEGAL DESCRIPTION & TAX PLAT

The available two warranty deeds describing the original 91.25 acres of property purchased on March 18, 1959 and a deed describing an additional purchase of 13.75 acres on July 23, 1986 are located in Attachment B. Attachment B also contains a legal description, prepared by GPA, that describes the extent of the current GPA property. Attachment C is a current Decatur County tax plat map provided to EIC on June 25, 2012 by the Decatur County Board of Tax Assessors office. This map illustrates the parcel numbers and property boundaries of the site and of surrounding properties as currently defined by this office. Attachment D, derived from the tax assessors' office website, is a table listing the current property owners of the site and each parcel adjacent to the site as defined by this office. Attachment E illustrates the original site property boundaries as described in the two 1959 deeds and 1986 deed. According to GPA, in addition to the properties purchased in the attached deeds, GPA has purchased two other properties, had a railroad right-of-way (ROW) transferred to it, and has sold seven portions of its property. EIC was unable to obtain each deed regarding each of these property transfers, however, Attachment F, based on GPA's description of the current property illustrates the current extent of the GPA property (at a total of 64.6 acres, according to GPA's legal description) and of the adjacent Agrium properties. According to GPA, the legal description is a more accurate depiction of the site property than is the county tax plat

map.

Referring to Attachments D and F, the site property itself consists of parcel numbers 20, 21A, and portions of parcels 18 and 19. Also referring to these attachments, the properties immediately surrounding the site are currently defined by Agrium and the City of Bainbridge to the northeast; the Flint River to the southeast; the Ergon Terminal to the west; and opposite of Spring Creek Road to the northwest (from west to east), Barber Thurman (wooded undeveloped), Sweetriver Land, LLC (wooded undeveloped), Jackson Glaphrey and Etal (undeveloped), Valbay, Inc., and Georgia Gulf Sulfur.

1.3 SITE GEOLOGY

The surficial geology of the site consists of unconsolidated alluvial deposits of the Flint River. Figure 1-3 identifies the orientations of two geological cross-sections (Figure 3 of the CAP). Figures 1-4 and 1-5, illustrate the geological cross-sections along A-A' and B-B', (Figures 3A and 3B, respectively, of the CAP). Referring to the cross-sections, it appears that the top of the lower sand unit is located at depths ranging from 8 to 18 feet below ground surface (bgs) except near the Flint River where the sand unit extends to the surface. The depth of the bottom of the sand unit is unknown. The sand unit is overlain by clayey sand or other fill material within the site.

1.4 SITE HYDROGEOLOGY

Referring to the cross sections, the water table of the unconfined aquifer typically occurs from 16 to 24 feet bgs. Based on April 2012 gauging data, the potentiometric surface elevations within the unconfined aquifer of the unconsolidated alluvial deposits ranged from 75.11 feet at MW-17 (in the southern portion of the site near the Flint River) to 78.60 feet at MW-16 (in the northern portion of the site near Spring Creek Road) with a difference of 3.49 feet (CH2M-Hill, 2012). The total depth to the water table in the wells ranged from approximately 16 to 28 feet below top of casing (TOC). Referring to Figure 1-6, that depicts the potentiometric surface, based on current April 2012 gauging data, the groundwater flow is generally towards the south-southeast. Along the bulkhead at the Flint River, the equipotential lines generally parallel the Flint River.

According to the CAP, no slug tests have been performed at the Terminal. As such, the hydraulic conductivity is unknown at this time.

1.5 COC & DELINEATION STANDARDS

Based on a review of the historic site investigations, it is apparent that pesticides are the primary constituents of concern (COC) at the site. The predominant pesticide COC is benzenehexachloride (BHC), also known as hexachlorocyclohexane, composed of isomers, α-BHC, β-BHC, δ-BHC, and γ-BHC (Lindane). High concentrations of BHC isomers have been detected in multiple areas during previous soil sampling events at the site.

Site delineation concentration criteria for pesticides COCs found at the site in soil and groundwater are tabulated in Tables 1-1 and 1-2. Table 1-2 also includes delineation of metal constituents namely lead and chromium. Historical reports indicate the presence of metal constituents in a limited area within the GPA property. These values were based on Type 1 values listed in the Risk Reduction Standards (RRS) tables that were approved by EPD (EPD, 2009) and included in the CAP (CH2M Hill, 2009).

1.5.1 Additional delineation standards

Upon reviewing the draft removal action completion report (RACR) (CH2M Hill, 2011) for the North Parcel, EPD recognized additional compounds that were detected during soil confirmation sampling. These additional compounds were endosulfan sulfate, toxaphene, alpha-chlordane, and gamma-chlordane, and their corresponding Type I RRS values were 1.65 mg/kilogram (mg/Kg) or parts per billion (ppb), 10.9 mg/Kg, 9.2 mg/Kg, and 9.2 mg/Kg, respectively (EPD, 2011). No delineation standards or RRS values were previously computed for these compounds. According to GPA, however, these additional compounds were not handled as part of GPA's terminal operations. Based on the locations where these compounds were found, CH2M Hill attributed the source of the additional compounds to third-party sources.

1.6 RISK REDUCTION STANDARDS

The soil standards included only pesticides, whereas the groundwater standards included pesticides, chromium, and lead. After several iterations, EPD approved Types 1 through 4 RRS standards for both soil and groundwater contamination levels listed in Tables 1-3 and 1-4 (CH2M Hill, 2009). GPA will utilize Type 4 RRS to demonstrate compliance under the VRP.

SECTION

2

2 SITE CONCEPTUAL MODEL

A Site Conceptual Model (SCM), also known as Conceptual Site Model, is a summary of the site conditions as it pertains to a contaminant release. Typically, the model defines release sources, extent of the plume, likely fate and transport mechanisms, potential exposure pathways, and potential receptors that could be impacted. This information serves as an important tool in developing site remedies. The following sections provide a preliminary SCM based on available site data. As additional knowledge is gained, during the implementation of the VIRP, GPA will sequentially refine the SCM.

2.1 RELEASE SOURCES

Previous investigations have identified both potential on-site and off-site sources that have contributed to the soil and groundwater contamination at the site. However, none of the investigations have clearly substantiated the actual source(s) of release(s). The following excerpts about soil and groundwater contamination were derived from various historical reports.

2.1.1 On-site Sources

It appears that GPA received at least one batch of BHC several decades ago. A review of GPA's shipping logs or other historical records is necessary to confirm this event. In the 1960's, an undisclosed location in the northwest portion of the site was reportedly used for the storage of pesticides. During site redevelopment in the early 1970s, paving materials from that location was apparently excavated and transferred to an area located to the southern portion of a warehouse identified as the Rock Salt Warehouse (RSW) in Figure 1-1. Prior to the construction of the RSW in 1988, additional soil from the RSW site leveling operation was also transferred to the same location as paving materials from the former pesticide storage area. The combination of the excavated material from both areas resulted in soil contamination within a soil mound located to the south of the RSW. No records were available to substantiate the transfer events.

Additionally, other customers have utilized GPA's facilities for storage of pesticide material. It is unclear if BHC migrated into soil from these on-site storage areas.

2.1.2 Off-site Sources

From various testimonials, GPA has also learned that other facilities hydraulically upgradient of the GPA site used BHC in manufacturing or in the distribution of pesticide material. MACTEC, the former consulting firm that served GPA in 2003, reviewed two off-site facilities as potential source(s) of groundwater contamination present in the North Parcel. The first facility was identified as Georgia Gulf Sulfur (GGS) that makes sulfur-based pesticide products. Valbay, Inc., a warehouse facility located at the intersection of Spring Creek Road and Mount Olive Church Road, was identified as a second facility.

During its investigation, MACTEC interviewed Mr. Butch Wilson (Manager of Royseter-Clark facility with 37 years of service) and Mr. Artis Rambo (former long-term GPA employee). According to Mr. Wilson, GGS was historically handling pesticides at its plant whereas GPA had only one incidence of pesticide storage. Mr. Rambo corroborated Mr. Wilson's testimony about GGS operations and also stated that the Valbay warehouse did not store any pesticides. EIC was unable to find a comprehensive list of all chemicals used in GGS's operations.

2.1.3 Third-Party Sources

Considering that GPA's site is located in a farmland area, it is also conceivable that other third-party sources could have contributed additional pesticides that are now found on the site. For instance, BHC, toxaphene DDT, aldrin, dieldrin, and other pesticides were historically sprayed on cotton fields to treat Boll Weevil in Georgia (Haney, Lewis, and Lambert, 2009). Also, BHC, Guthion, DDT, and other pesticides were hydraulically sprayed on pine trees in the Southeast to treat coneworms in the 60s (Merkel, 1964). Other experiments were performed in the Southland Experiment Forest located in the general area where the GPA site is located (Kinloch and Stonecypher, 1969). Upon approval of the VIRP, GPA will further review the impact of these potential sources.

2.2 Extent of contamination

2.2.1 Soil Delineation

Based on historical sampling events, pesticide COCs discussed in Section 1.5 were detected in soil samples obtained from both the North and South parcels. Referring to Table 2-1, a total of 14 sampling events have been completed during the period from 1993 through 2012. From these sampling events, a total of 1,468 samples were collected for laboratory analysis from hundreds of soil borings and excavations. These sampling events identified several small hot spots in the North Parcel and three hot spots in the South Parcel.

Referring to the RACR, all hot spots in the North Parcel have been delineated and remediated. Based on additional sampling, the horizontal extents of three hot spots in the South parcel have also been defined (GPA, 2012). For ease of reference, EIC designated these hot spots as three areas of concern (AOC). The first hot spot, designated as AOC-1, is comprised of a relatively large area to the south

of the RSW that has been a focus of extensive investigation since 2009. The second hot spot, designated as AOC-2, is comprised of the subsurface beneath a concrete pad upon which Warehouse No. 3 rests. The third hot spot, designated as AOC-3, is located along the drainage ditch/swale designated.

Figure 2-1 identifies recent sampling locations at AOC-1 in the South Parcel and Figure 2-2 identifies sampling locations in AOC Nos. 3 and 4. Tables 2-2 through 2-4 tabulate the associated sampling data for the three soil AOCs. During the 2011 soil sampling program, the horizontal extent of AOC-1 and AOC-3 were delineated. AOC-2 that lies beneath the Warehouse No. 3 concrete pad, however, is not fully delineated. Nevertheless, in identifying the three AOCs in the South Parcel, GPA has horizontally delineated the soil contamination within the site boundary. According to EPD, the extent of off-site soil contamination to the north, beyond the Spring Creek Road right-of-way remains undefined (EPD, 2011).

Referring to the RACR, the vertical extent of soil contamination in the North Parcel was delineated to below RRS levels since all soil material exceeding the RRS standards have been remediated. In the South Parcel, based on additional soil investigations performed in 2011, GPA determined that the vertical extent of soil contamination at AOC-1 has been delineated except for two small spots located at depths ranging from 21 to 24 feet below grade (Table 2-2). The vertical extent of soil contamination beneath the concrete pad at AOC-2 remains undefined (Table 2-3). At one spot in AOC-3, the vertical extent remains undefined (Table 2-4). No information is available on the vertical extent of offsite soil contamination to the north beyond the Spring Creek Road right-of-way.

2.2.2 Groundwater Delineation

Based on historical sampling events, pesticide COCs discussed in Section 1.5 were detected in groundwater samples obtained from monitoring wells located both in the North and South parcels. Referring to Table 2-5, a total of thirteen groundwater sampling events were completed during the period from 1993 and 2012.

To-date, 24 wells have been installed at the site. During the most recent sampling event in 2012, groundwater samples collected from 16 accessible wells were submitted for laboratory analysis. Of the remainder of the wells, one well was dry, three wells were not located, and four wells were not sampled for unknown reasons during the 2012 sampling event.

In May 2012, GPA transmitted the First Annual Groundwater Monitoring Report in concurrence with the scope defined in the CAP (CH2M Hill, 2012). According to the May 2012 report, the horizontal extent of pesticides exceeding the RRS values in groundwater beneath the site is defined to the east, south, and west. The extent of groundwater contamination to the north, beyond the Spring Creek Road right-of-way remains undefined.

To review the overall extent of groundwater contamination, EIC compiled laboratory analytical data from the three most recent sampling events performed in 2009, 2011, and 2012 (Table 2-6).

Referring to Table 2-6, it is apparent that the primary COCs that exceeded Type 4 RRS were alpha (α)-BHC, beta (β)-BHC, and delta (δ)-BHC isomers. These sampling events provide the greatest number of sampled wells for review, since the existing site wells resulted from a gradual addition of wells over time. Figures 2-1 through 2-9 represent isoconcentration maps for α-BHC, β-BHC, and δ-BHC isomers during the three sampling events. Figures 2-3 through 2-11 illustrate both the delineation and RRS limits of the BHC isomers. Based on these figures, it is apparent that the horizontal extent of BHC isomers has been delineated within the GPA's site boundary. Further investigation, however, is necessary to delineate the off-site sources hydraulically up-gradient of the GPA property.

Dissolved concentrations of α-BHC, β-BHC, and δ-BHC isomers currently meet the established RRSs in the CAP in all but eight wells, namely MW-5A, MW-5D, MW-6, MW-8, MW-10, MW-20, MW-21, and MW-22. Referring to the 2012 groundwater sampling data, the following observations of current groundwater RRS exceedances were noted:

- α-BHC concentrations currently are below the site specific RRS of 0.5 μg/L (ppb) at all wells except at wells MW-5D, MW-6, MW-10, and MW-22.
- β-BHC concentrations currently are below the site specific RRS of 1.6 μg/L at all wells except at wells MW-5A MW-5D, MW-6, MW-8, MW-10, MW-20, MW-21, and MW-22.
- δ-BHC concentrations currently are below the site specific RRS of 0.1 μg/L at all wells except at wells MW-5A MW-5D, MW-6, MW-8, MW-10, MW-20, and MW-22.
- The β-BHC concentration of 33.2 μg/L at MW-22 is currently the highest BHC concentration of the sampled wells.

In subsequent sampling events, defined in Section 4, GPA will further delineate the metal constituents noted in Section 1.5 and additional compounds discussed in Section 1.5.1.

2.3 FATE & TRANSPORT

As discussed in Section 2.1, surface contamination in the North parcel areas could have resulted from on-site sources, off-site sources, or historic pesticide applications in the area. Considering that the peak concentrations of groundwater contamination was detected in wells in the northern portion of the site that is located hydraulically up-gradient of the site, it appears that the groundwater contamination resulted from potential off-site source(s).

The main purpose of the fate and transport evaluation is to assess the migration potential of the released COC in a multimedia setting. Based on such an assessment, it is possible to establish potential exposure levels, critical in establishing risk-based screening and cleanup goals.

Typically, the BHCs identified at the site are subject to the following mechanisms:

- Physical separation of released product into other states of matter due to sorption, solubility and other equilibrium reactions. Considering that BHCs are comprised of solid material, most released material may remain in solid state mixed in with the native soil material.

- Dispersion involving horizontal and vertical spreading of partitioned or leached constituents.
- Diffusion consisting of spreading from concentration gradients.
- Biodegradation by native microorganisms along the migration pathway.
- Other attenuation processes that reduce the concentrations with time and distance.

Based on interviews EIC conducted in August 2010, only one BHC storage event took place at the site in the 1960s. With the exception of potential impact from soil transfer activities that took place prior to 1988 (Refer to Section 2.1.1), no other onsite sources of contamination have been reported.

As discussed in Section 2.7.1, soil leachate potential is minimal. Consequently, there are only three potential transport mechanisms for BHC contamination. The first transport mechanism is the physical separation of the BHC mixing with the soil matrix. The second transport mechanism is the prevailing groundwater contamination that resulted from potential off-site sources. Based on BHC's properties, advection or bulk movement of the soil contamination is not possible. Groundwater contamination is therefore subject to dispersion, diffusion, and biodegradation. A third transport mechanism that could be dust or vapor phase is minimal.

2.4 MIGRATION PATHWAYS

Based on the discussions in Section 2.3, it is apparent that BHC is the primary COC that has a potential to migrate at the GPA site.

2.4.1 BHC Migration Potential

Based on BHC properties, Figure 2-12 identifies three potential COC migration pathways for the α-BHC, β-BHC, and δ-BHC isomers. Typically, surface runoff can carry soil contamination to drainage ditch or swales that ultimately discharge to surface waters. Contaminated sediments deposited in the drainage swales can leach contaminants to surface water. If soil contamination results in leachate, such contamination can reach groundwater.

Typically, dissolved contaminants tend to move with the groundwater flow. Consequently, the peak plume (area of highest concentration) would be subject to a migration consistent with seepage velocity. Depending on the contaminant flux, dissolved contaminants can reach downgradient water wells or discharge to surface water. In reviewing Figures 2-3 through 2-11, representing three of the most recent sampling events, the downgradient edge of the dissolved BHC plume is contained within the GPA property. In fact, the peak plume is actually diminishing over time. According to the CAP, no drinking water wells were found downgradient of the GPA site.

As such, there appears to be no immediate down-gradient receptors of contaminated groundwater adjacent to the site. Further evaluation of the trends of the target COC contaminants will be conducted as described in the projected schedule (Section 5).

2.4.2 Migration Potential of Other COCs

Based on subsequent groundwater sampling events, GPA will evaluate the migration potential of lindane and other COCs discussed in Section 1.5.1.

2.5 POTENTIAL RECEPTORS

2.5.1 Human Health Receptors

According to Agency for Toxic Substance and Disease Registry (ATSDR), humans can be exposed to BHC only through direct contact such as inhalation, ingestion, or dermal contact of BHC contaminated media (ATSDR, 2005). ATSDR also states that BHC has not been produced or used in the United States since 1985. Considering that the only potential BHC storage took place in the 60s and the soil related activities took place in the 80s, vapor phase contamination is likely not persistent in surface soils, eliminating the inhalation hazard. The CAP states, "The alluvial soils and terrace deposits present in the Site are not typically used as sources of drinking water." (CAP). There are no drinking water wells within the GPA property or within .5 to 1 mile from the affected area (HSI Listing) eliminating ingestion hazard. Also, there is no evidence of surface water contamination resulting from the BHC contamination at GPA. Under the proposed action discussed in Section 4, GPA plans to implement engineering controls to eliminate the dermal hazard.

2.5.2 Ecological Receptors

According to ATSDR (2005), BHC in soil, sediments, and water, is broken down to less toxic substances by algae, fungi, and bacteria, over a period of time. However, no studies have been completed to determine potential ecological receptors. Upon approval of the VIRP, GPA will utilize the Georgia Natural Heritage Program (GNHP) or other expert resources to determine if rare, imperiled, and critically imperiled plant or animal species are affected at the site.

2.6 OTHER EXPOSURE PATHWAYS

As discussed in Section 2.4, groundwater is the primary pathway for migration of COCs at this site. Upon approval of the VIRP, any other exposure pathway(s) will be evaluated. GPA will, in particular, evaluate the potential for dermal contact to minimize exposure for terminal personnel, contractors, and visitors.

2.7 EMPIRICAL EVALUATION OF MONITORING DATA

To evaluate the soil leachate potential and to determine the potential source of groundwater contamination, EIC conducted an empirical analysis of soil and groundwater data from historic sampling events. The following subsections provide the results of EIC's evaluation.

2.7.1 Soil Leachate Potential

Considering that the BHC is relatively insoluble in water, leachate potential is minimal at the GPA site. The following three evaluations substantiated this finding.

A. Laboratory Testing Data

Synthetic Precipitation Leaching Procedure (SPLP) test data (GPA, 2012) from soil samples collected at the GPA property indicated that leachate from precipitation does not have a potential to exceed Type 1 RRS levels. TCLP test data (GPA, 2012) indicated similar results.

B. Soil and Groundwater Analytical Results

Typically soil contamination in the vadose zone has a potential to leach contaminants from precipitation events or other driving forces. Such a leachate can migrate through the vadose zone by gravity and ultimately reach groundwater. The resulting contaminant concentrations in the groundwater would be typically based on the contaminant flux in the overlying zones. Although high concentrations of soil contamination were present in the South Parcel for several decades, however, the groundwater contamination is substantially low (refer to Figures 2-3 through 2-11) indicating minimal soil leachate potential. This finding substantiates that the BHC material in the vadose zone is relatively insoluble during normal precipitation events.

C. Onsite Data relative to Offsite Data

To further examine the soil leachate potential, EIC compared onsite soil and groundwater data to offsite data. Given similar hydrogeological conditions as well as similar physical, chemical, and biological conditions in the vadose zone, contamination would be expected to have a similar leachate potential at both locations. EIC therefore compared the vadose zone soil contaminant concentrations to groundwater concentrations at two locations with similar subsurface stratigraphy. The first location was the MW-6 area, within the GPA property in the AOC-1 area, and the second location was the MW-22 area, located hydraulically upgradient of the GPA property to the north of Spring Creek Road.

The deepest soil sample at the MW-22 soil boring was collected from a depth of 10 feet below grade. As such, EIC utilized soil sample data from the sample that most closely represents the same depth in the vicinity of MW-6 in the South Parcel. The water table elevations at MW-6 and MW-22 are 77.27 ft (21.41 ft below TOC) and 77.50 feet (24.79 feet below TOC), respectively (CH2M Hill, 2012).

Referring to Tables 2-6, β-BHC concentration in groundwater in MW-6 was as low as 1.6 ppb although the soil concentrations in the vadose zone at an adjacent soil boring was 14,200 ppb (Sample ID E-16-H-121911-11-12 from Table 2-2) at a depth of 11 to 12 ft bgs. Also, in a soil boring from the adjacent sampling grid the contaminant concentration was significantly higher at 1,580,000 ppb at 10 feet bgs. Meanwhile, the β-BHC concentration in the groundwater at MW-22

(hydraulically upgradient of GPA site) was as high as 33.2 ppb (Table 2-6). Such high groundwater concentration would be expected to result from a proportionately higher soil contamination in the overlying vadose zone at that location. Referring to the soil sampling data from the MW-22 soil boring , however, the β-BHC concentration in the overlying vadose zone was only 4.18 ppb at 10 feet below grade (GPA, 2012).

The striking contrast in soil and groundwater data between the on-site (MW-6) versus hydraulically upgradient off-site location at (MW-22) indicates that high soil contaminant levels in the vadose zone at GPA's south parcel do not equate to higher groundwater concentrations. Consequently, the groundwater contamination beneath the GPA property appears to have originated from a hydraulically upgradient source as discussed in Section 2.7.2 below.

2.7.2 Off-site Source of Groundwater Contamination

Based on the findings discussed in Section 2.7.1 and the plume configuration illustrated in Figure 2-3 through 2-11, a comparatively high concentration of groundwater contamination in MW-22 indicates a potentially upgradient source that is conveying groundwater contamination onto GPA property. During the VIRP program, GPA will further investigate this finding.

2.7.3 Other Driving Forces that can Increase Leachate Potential

While BHC is relatively insoluble in water, the substance is more soluble in solvent or other chemical medium such as those used in the pesticide industry. Any release of such medium has a potential to leach contaminants into lower zones.

2.8 MODEL LIMITATIONS

The preliminary SCM, outlined in Section 2, describes the site condition based on available site data. During the VIRP process, GPA will further calibrate the SCM based on additional findings.

If sufficient data becomes available, a three-dimensional rendering of the contaminant plume(s) can be developed. Considering that the data pertaining to horizontal and vertical delineation were obtained from different monitoring dates, such a rendering was impractical during this VIRP preparation. GPA, however, included two-dimensional renderings of horizontal delineation in Section 2.2.

SECTION

3

3 CURRENT REMEDY

In 2009, GPA retained CH2M Hill to address the site liabilities. Based on the site background material and additional field investigations, CH2M Hill prepared a corrective action plan (CAP) to address benzenehexachloride (BHC) pesticide contamination (CH2M Hill, 2009). To comply with the Risk Reduction Standards (RRS) for soil and groundwater, CH2M Hill proposed the following tasks in the CAP:

- Surface soil excavation, transportation, and off-site disposal.
- Collection of confirmatory soil samples to demonstrate that the regulated substances (contaminants of concern) no longer exceed the applicable Type 4 RRS.
- Use of monitored natural attenuation (MNA) to address residual pesticides in groundwater.
- Collection of groundwater samples (semiannually and annually) until compliance with the applicable RRS for regulated substances in groundwater are achieved.

3.1 SOIL REMEDIATION & CONFIRMATORY SAMPLING

After submitting the CAP in 2009, GPA initiated certain investigatory and remedial activities outlined in the CAP. Initially, GPA understood that 720 cubic yards of contaminated soil required excavation and disposal. During initial excavation, however, progressively additional environmental contamination was discovered that significantly expanded the overall scope of the project. Ultimately, however, 4,000 cubic yards of contaminated soil was excavated from the North Parcel and transferred to a local landfill. GPA also collected confirmatory soil samples from the excavations to demonstrate that residual soils do not contain pesticide contamination in excess of the Type 4 RRS listed in Table 1-3. A recovery action completion report (RACR) that documents the soil excavation was submitted to EPD (CH2M Hill, 2009). In 2011, GPA divested a portion of the North Parcel. The current property boundary is outlined in Attachment F.

In the South Parcel, additional soil investigations revealed pesticide contamination not only at greater depths but in other areas of concern as discussed in Section 2.2.1. In AOC-1, soil contamination extended to depths of up to 24 feet below ground surface. Soil contamination discovered in AOC-2, underneath a concrete slab on which Warehouse No. 3 rests, extended to a

depth of more than 5 feet. In AOC-3, the soil contamination in AOC-3 was found above RRS in one spot at a depth of from 0 to 2 feet. No soil excavations have been performed in the South Parcel.

3.2 ATTENUATION POTENTIAL & PLUME STABILITY

As discussed in Section 2.2.2, the areal extent of groundwater contamination to the North has extended hydraulically upgradient to north of the Spring Creek Road right-of-way. Based on the plume configuration there is a strong evidence of off-site sources that are potentially contributing to the groundwater contamination.

No active groundwater remediation is currently in progress at the site. It is likely, however, that certain natural attenuation may already be occurring at the site. Further evaluation is required to determine the extent of attenuation. Also an evaluation of fluid flow hydrodynamics is essential within the site in general and along the bulkhead.

3.2.1 Attenuation Potential

During the April 2012 sampling event, GPA collected groundwater samples from 19 monitoring wells to evaluate the indicator parameters that identify attenuation potential. Referring to Table 3-1, the samples were analyzed for dissolved oxygen (DO), oxidation reduction potential (ORP), ethane, ethane, methane, manganese, chloride, nitrate, sulfate, and total organic carbon (TOC). Collectively, these results were inconclusive in verifying aerobic or anaerobic biodegradation potential (GPA, 2012). Additional investigation is required to determine the true mechanism that attenuates the pesticide contaminants in the groundwater. Nevertheless, the BHC plume remains stable within the GPA property boundary as discussed in Section 2.2.2.

3.2.2 Plume Mobility & Stability

Typically, dissolved contaminants tend to move with the groundwater flow. Considering the high groundwater seepage velocity for sandy soils found at this site, it is important to observe that the plume has not migrated well beyond the limits of the GPA site. Furthermore, the overall extents of the α-BHC, β-BHC, and δ-BHC plumes are actually receding as illustrated in the sequential maps (Figure 2-3 through 2-11) that cover the period from August 2009 through April 2012. The peak concentration of each isomer is also reducing within the South Parcel. The BHC plume for the three isomers, therefore, appears to be stable and contained within the South Parcel. Upon approval of the VIRP, GPA will conduct field tests to define the aquifer hydraulic characteristics and define the plume stability for the remainder of the COCs that exceed the RRS values.

By contrast, the overall extent of the plume in the North Parcel, especially to north of the Spring Creek Road right-of-way in the North Parcel has expanded as the well network was expanded in a hydraulically upgradient direction. This indicates a strong potential for off-site source(s) of BHC contamination that is contributing the BHC groundwater concentrations.

SECTION

4

4 PROPOSED ACTION

It is clear that BHC isomers are present in both soil and groundwater at the site. While the groundwater plume is reasonable well delineated, the vertical extent of the soil contamination in the South Parcel is partially delineated. Consequently, digging and hauling an infinite quantity of soil material is impractical

4.1 PRACTICAL CONSIDERATIONS

4.1.1 Prevailing Soil Contamination

Following the CAP, GPA remediated soil contamination that exceeded the RRS in the North Parcel. This soil remediation resulted in excavation and transfer of 4,000 cubic yards of contaminated soil from the North Parcel to a local landfill. To fulfill the remainder of the CAP objectives, GPA would be required to excavate substantially greater quantities of soil in the South Parcel. Based on the following site-specific factors, however, it is technically impractical to remediate the soil contamination in the South Parcel:

1. As discussed in Section 2.3, BHC isomers are relatively insoluble. Also as discussed in Sections 2.3 and 2.7.1 empirical data suggests that the soil leachate potential is minimal.
2. Referring to Section 2.7.2, it is likely that a potentially off-site source contributed groundwater contamination found beneath the GPA site.
3. Considering the potential depth of excavation, the structural integrity of various superstructures at the site would be jeopardized.
4. Since excavation and transfer of vast quantities of contaminated soil from a historically GPA-controlled site to a landfill would only transfer the liability to a landfill site creating another potential source. Furthermore construction workers and everyone involved with the transfer of soils will be exposed to multimedia BHC contamination - even if PPE is used to minimize this hazard. Such an action may result in an imminent and substantial danger to human health and the environment.
5. Since, the terminal is an industrial zone and is a fenced-in facility with secure access, exposure to the general public is precluded. Therefore, the contaminated soil material in the South Parcel does not pose an imminent threat to human health and the environment.
6. Even if GPA removed all contaminated soils from the South Parcel, groundwater contamination would remain persistent at the site, requiring long-term cleanup.

4.1.2 Prevailing Groundwater Contamination

Based on the state of the site and the groundwater attenuation mechanisms discussed in Section 3.2, it is clear that the overall extent of the dissolved contamination in the groundwater is actually receding in the South Parcel It is therefore practical to follow the monitored natural attenuation (MNA) approach to address residual pesticides in groundwater. Groundwater monitoring is also essential until compliance with the applicable RRS for COCs in groundwater are achieved.

4.1.3 Remedial Strategy

Based on the preliminary site conceptual model discussed in Section 2 and the practical considerations outlined in Section 4.1, it is clear that the management of soil contamination in the South Parcel using institution controls is the most practical and cost-effective solution. This approach will eliminate the imminent or substantial danger to human health and the environment.

Since the groundwater plume appears to be stable and located within the site boundary, monitored natural attenuation (MNA) is the most practical and cost-effective remedial strategy. GPA will utilize certain performance metrics to verify the effectiveness of MNA as the best remedial strategy. If the BHC trends indicate an unacceptable time frame to reach remedial end points, during MNA implementation, GPA will implement contingency measures.

4.2 PROPOSED ACTION

4.2.1 Management of Contaminated Soils

GPA will manage prevailing soil contamination in the South Parcel using site covenants and engineering controls – eliminating the need for further excavation, avoiding exposure of site workers, visitors, on-site employees, and of the general public to BHC contamination. To implement activity and soil use limitations within AOCs 1 and 2, GPA will complete the following actions:

1. GPA will execute an environmental covenant pursuant to the Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, et seq as institution controls.
2. As engineering controls, GPA will install security fencing around the aerial extent of AOC 1. Figure 4-1 illustrates the proposed fencing alignment.
3. Since contaminated soil in AOC-2 is beneath a concrete slab, potential exposure to visitors is already eliminated. Direct exposure to site workers and employees will be controlled with site covenants discussed in item 5 below.
4. Remove a limited amount of soil from a single hot spot identified in the sediments along the drainage ditch/swale within AOC-3, unless storm water sampling indicates that the surface runoff does not present a risk of BHC migration to surface waters.
5. Site covenants will be utilized eliminate exposure to routine surficial contact as well as exposure to construction workers or underground utility workers.

4.2.2 Monitored Natural Attenuation of Groundwater Contamination

To address the prevailing groundwater contamination discussed in Section 4.1.2, GPA has developed the following conceptual remedial strategy.

- Perform semiannual site-wide groundwater sampling events for COC analysis from wells located both within the BHC isomers foot-print as well as outside this footprint.
- Conduct a well inventory to identify missing wells and inaccessible wells. Repair, replace, or properly abandon unusable wells.
- Utilizing MNA as an interim remedial program, monitor the groundwater contaminants for a period of two years.
- In concurrence with EPD, GPA will select a fate and transport model to evaluate the effectiveness of the MNA program in compliance with site-specific RRS.
- Based on the observed trends, GPA will make further decisions on whether to continue with natural attenuation to reach remedial end points or to evaluate other enhancement measures.
- If enhancement is required, GPA will develop a microcosm test to evaluate the role of facultative anaerobes or other limiting factors. GPA can then implement alternative techniques to reach remedial end points within a period of 3 to 5 years as mandated by the EPD.

4.3 PERFORMANCE METRICS

To determine the effectiveness of the selected remedy, GPA will periodically perform a two-dimensional concentration/time analysis of the data from MNA monitoring and indicator parameters to address the following performance metrics:

- Is the plume stable or shrinking?
- Is there an ongoing source of onsite or off-site contamination that is contributing to the prevailing plume?
- Is the contaminant flux meeting remedial goals and is sustainable?
- Is the prevailing remedy practical and cost-effective?
- Is the projected time frame to reach remedial objectives acceptable?

4.3.1 MNA Monitoring

Available wells within and outside the known contaminant plumes, will be utilized for MNA monitoring during the course of the VRP. Groundwater MNA sampling will be conducted as follows:

1. Samples will be collected from the wells on a quarterly basis during the first year and semiannual basis thereafter.

2. Samples will be collected utilizing established low-flow sampling techniques or appropriate alternative technique approved by EPD consistent with EPA Publication SW846 and EPA Region IV Field Branches Quality System and Technical Procedures (FBQSTP), Groundwater Sampling (SESDPROC-301-R2)(EPA,2011).

4.3.2 Indicator Parameters

In addition to BHC trend analysis, other indicator parameters such as pH, DO, ORP, and other inorganic parameters serve as important metrics in determining the change in site conditions and the effectiveness of the MNA program. As such, GPA will collect groundwater samples at selected intervals to monitor for indicator parameters.

4.3.3 Fate and Transport Model

As specified in EPD's letter dated May 2, 2011, GPA will utilize the site data to demonstrate that natural attenuation is sufficient to achieve compliance with the RRS. In particular, GPA will utilize the U.S.EPA OSWER Directive 9200.4-17P "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites," as a resource to demonstrate plume stability and attenuation mechanisms.

GPA will conduct a two-dimensional analysis of contaminant trends and indicator parameters trends to demonstrate whether the site is meeting the performance metrics. In addition, GPA will utilize a three-dimensional fate and transport model to evaluate the effect of dispersion, advection, sorption, and biodegradation. If the analysis is insufficient in addressing the performance metrics, GPA will consider statistical analysis to determine the performance metrics. If these tools indicate that the prevailing remedial strategy is unable to meet the performance metrics, contingency tasks will be initiated to develop an appropriate remedy.

4.3.4 Supplemental Data

Depending on the results of the groundwater monitoring program, GPA will consider collecting supplemental data from compound specific isotope analysis (CSIA), enzyme activity probes (EAP), or down-hole implants to demonstrate multiple lines of evidence on rates of attenuation.

4.4 CONTINGENCY MEASURES

Since the groundwater contaminant plume is relatively stable, it appears that bioremediation may be a dominant natural attenuation mechanism at the site. If the performance metrics indicate that in-situ bioremediation alone is unable to attenuate the dissolved BHC isomers within a reasonable time frame, GPA will conduct a microcosm test to verify if enhancement is feasible.

If enhancement is unfeasible and the contaminant plume approaches the property boundary, GPA will develop an alternative remedial strategy for EPD's approval. If a practical cost-effective solution is unavailable, GPA will update the covenants to include groundwater use restrictions.

As discussed in Sections 2.7.2 and 3.2, there is strong evidence that an upgradient off-site or third-party source may have contributed to the prevailing contamination at the site. Upon confirmation of such source(s), GPA will evaluate cost reimbursement and/or transfer of environmental liabilities to the responsible parties.

4.5 PROJECT CLOSURE

Upon completion of remedial activities, GPA will submit to the EPD a CSR establishing that the remedial goals were reached as per the VRP, and certify that the property is in compliance with the remedial standards. GPA understands that, at any time before the CSR is submitted, the EPD can terminate GPA's enrollment in the VRP, if the EPD determines that GPA failed to properly follow the Voluntary Remediation Plan requirements, or, that continued enrollment will lead to an "imminent or substantial danger to human health and the environment." If the EPD determines that the CSR is compliant with the "provisions, purposes, standards, and policies" of the VRP, the EPD will deem the site to be compliant with groundwater RRS.

SECTION

5

5 SCOPE & SCHEDULE

GPA will complete the proposed actions in a 5-step project schedule. Figure 5-1 presents a Gantt Chart for GPA's Projected Schedule. The following sections outline the key tasks.

5.1 STEP 1 – MNA CALIBRATION

Within the first 12 months of participation in the program, GPA will conduct the following:

a. Complete horizontal delineation of all COCs (discussed in Section 1.5) within the GPA site.
b. Conduct a well inventory to identify missing wells and inaccessible wells. Repair, replace, or properly abandon unusable wells.
c. Further evaluate the off-site and third party source(s) of contamination contributory to the prevailing plume at GPA.
d. Collect groundwater samples on a quarterly basis to evaluate MNA potential.
e. Conduct field tests to define the aquifer hydraulic characteristics.
f. Complete an ecological receptor investigation. Utilize the Georgia Natural Heritage Program (GNHP) or other expert resources to determine if rare, imperiled, and critically imperiled plant or animal species are affected at the site.
g. Update the SCM, finalize remediation plan, and provide a preliminary cost estimate for the implementation of remediation.
h. Submit semi-annual reports to the EPD following the VRP reporting requirements.
i. Update the Projected Milestone Schedule.

5.2 STEP 2 – MNA TREND ANALYSIS

Within the first 24 months of participation in the program, GPA will conduct the following:

a. Define the plume characteristics for the remainder of the COCs listed in Section 1.5.
b. Utilizing the MNA monitoring data, evaluate trends to determine if the COCs are progressively reducing such that the RRS will be met in a reasonable time frame.
c. In concurrence with EPD, select a fate and transport model to evaluate compliance with site-specific RRS.

d. If required, collect supplemental data to demonstrate multiple lines of evidence on rates of attenuation.
e. Increase the frequency of groundwater sampling program to semi-annual basis to monitor MNA progress.

5.3 STEP 3 – MNA CONFIRMATION

Within the first 30 months of participation in the program, GPA will conduct the following:

a. Update the site conceptual model with information gained in Steps 1 and 2.
b. If MNA appears unfeasible in meeting projected remedial goals, conduct a microcosm test to determine enhancements to increase the biodegradation potential of COCs. The results of the microcosm test may also lead to other alternative remedial technologies to reach remedial goals.
c. Finalize the remediation plan.
d. Provide a preliminary cost estimate for implementing remediation and/or contingencies and associated tasks.

5.4 STEP 4 – MANAGEMENT OF CONTAMINATED SOILS

Within 36 months of participation in the program, GPA will conduct the following for management of contaminated soils.

a. Prepare a plan for long-term management of contaminated soils.
b. Install security fencing around AOCs 1 and 2.
c. Post signs on the fencing to warn visitors, contractors, and site workers of exposure risk within the fencing.
d. Develop a Hazard Communication Program for GPA's on-site workers, contractors, and visitors for notification of potential environmental hazards and exclusion areas.
e. Implement annual HAZCOM program and train all responsible GPA employees.
f. Prepare a Soil Remediation Work Plan for addressing the hot spot identified in AOC-3.
g. Conduct Drainage Swale/Ditch Remediation (assume 1,500 cu.yds).
h. For EPD review and approval, prepare an environmental covenant for institutional controls of contaminated soil.

5.5 STEP 5 - VRP CLOSURE

Within the first 60 months of participation in the program, GPA will conduct the following:

a. Submit a CSR with mandatory certifications.
b. Initiate a post-closure monitoring program.

SECTION

6

6 REFERENCES

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BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

TABLES

Table 1-1: Soil Delineation Concentration Criteria

Constituents	CAS No.	Concentration, (µg/kg)*
alpha-BHC	319-84-6	660
beta-BHC	319-85-7	660
delta-BHC	319-86-8	10
gamma-BHC	56-89-9	660
DDD	72-54-8	660
DDE	72-55-9	660
DDT	50-29-3	660
Aldrin	309-00-2	660

*** Values Derived from Type 1 values listed in Table 1-3**

Note:

BHC = benzenehexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
RRS = Risk Reduction Standards
µg/kg = micrograms per Kilogram

Table 1-2: Groundwater Delineation Concentration Criteria

Constituents	CAS No.	Concentration, (µg/L)*
alpha-BHC	319-84-6	0.1
beta-BHC	319-85-7	0.1
delta-BHC	319-86-8	0.1
gamma-BHC	56-89-9	0.2
DDD	72-54-8	0.1
DDE	72-55-9	0.1
DDT	50-29-3	0.1
Aldrin	309-00-2	0.1
Chromium	18540-29-9	100
Lead	7439-92-1	20

*** Values Derived from Type 1 values listed in Table 1-4**

Note:

BHC = benzenehexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
RRS = Risk Reduction Standards
µg/L = micrograms per liter

Table 1-3: Current Risk Reduction Standards (RRS) for Soil (CH2M Hill, 2009)

Constituents	CAS No.	Soil, mg/kg		Soil, mg/kg	
		Residential		Non-Residential	
		Type 1	Type 2	Type 3	Type 4
alpha-BHC	319-84-6	**0.66**	0.11	**0.66**	0.35
beta-BHC	319-85-7	0.66	**0.94**	0.66	**3.1**
delta-BHC	319-86-8	0.01	**0.10**	0.01	**0.10**
gamma-BHC	56-89-9	0.66	**3.5**	0.66	**12**
DDD	72-54-8	0.66	**3.2**	0.66	**11**
DDE	72-55-9	0.66	**2.3**	0.66	**7.7**
DDT	50-29-3	0.66	**3.3**	0.66	**11**
Aldrin	309-00-2	**0.66**	0.032	**0.66**	0.11

Note:

Applicable RRS Standards are in bold and highlighted
BHC = benzenehexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
RRS = Risk Reduction Standards
mg/kg = milligrams per Kilogram

Table 1-4: Current Risk Reduction Standards (RRS) for Groundwater (CH2M Hill, 2009)

Constituents	CAS No.	Ground Water, mg/L		Ground Water, mg/L	
		Residential		Non-Residential	
		Type 1	Type 2	Type 3	Type 4
alpha-BHC	319-84-6	0.0001	0.0001	0.0001	**0.0005**
beta-BHC	319-85-7	0.0001	0.0005	0.0001	**0.0016**
delta-BHC	319-86-8	0.0001	0.0001	0.0001	**0.0001**
gamma-BHC	56-89-9	0.0002	0.0008	0.0002	**0.0026**
DDD	72-54-8	0.0001	0.0035	0.0001	**0.0120**
DDE	72-55-9	0.0001	0.0025	0.0001	**0.0084**
DDT	50-29-3	0.0001	0.0025	0.0001	**0.0084**
Aldrin	309-00-2	0.0001	0.0001	0.0001	**0.0002**
Chromium	18540-29-9	0.1000	0.0470	0.1000	**0.3100**
Lead	7439-92-1	0.0200	0.0015	0.0200	**0.0150**

Note:

Applicable RRS Standards are in bold and highlighted
BHC = benzenehexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
RRS = Risk Reduction Standards
mg/L = milligrams per Liter

Table 2-1 - Historic Soil Sampling Events at GPA Bainbridge Terminal Site

Sampling Entity	Month/Year Samples Collected	Source	# of Samples	Site Area
CH2M Hill	Jun-93	1999 CSR	7	South
SM & E	Nov-93	1999 CSR	3	South of RSW (TCLP samples)
SM & E	Nov-93	2000 CSR	10	South: Immediately behind RSW
Law	Aug-99	1999 CSR	26	North & South
Law	Sep-99	1999 CSR	16	South: E/W of RSW
Law	Jul-01	Revised 1999 CSR	11	South: warehouses, railroad spur, N,S,& E of RSW
Law	Apr-02	Addendum to 1999 CSR	2	North
MACTEC (Formerly Law)	Jun-03	2nd Addendum to 1999 CSR	2	South: N & E of RSW, Agrium Property (E of Terminal)
CH2M Hill	Jun-09	2009 Draft CAP	66	North & South
CH2M Hill	Jul-09	2010 Draft CAP	56	North & South
CH2M Hill	Additional 2009 Samples	Data Summary Table 2-7	56	North
CH2M Hill	2010	Data Summary Tables 2-8 through 2-10	827	North & South
CH2M Hill	2011	RACR	247	Northern and MW-20 Areas
CH2M Hill	2011	Additional Soil Investigation	139	RSW Area
		TOTAL	**1468**	

CSR= Compliance Status Report
RSW= Rock Salt Warehouse
TCLP= Toxicity Characteristic Leaching Procedure
CAP = Corrective Action Plan

TABLE 2-2 (GPA, 2012)

Soil Pesticide Data Summary - Rock Salt Warehouse

Additional Soil Investigation

Georgia Ports Authority, Bainbridge Terminal

Sample Location	Sample Identification	Sample Depth (ft)	Sample Date	4,4'DDD	4,4'DDE	4,4'-DDT	Aldrin	Dieldrin	Endsulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Heptchlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
Proposed Site-Specific RRS Values (ug/kg):				***11,000***	***7,700***	***11,000***	***660***												***660***		***3,100***	***100***	***12,000***	
E-16 B	E16-B-121411-8-9	8 - 9	12/14/2011	4.08 U	4.08 U	4.08 U	2.04 U	4.08 U	2.04 U	4.08 U	4.08 U	4.08 U	4.08 U	4.08 U	2.04 U	2.04 U	20.4 U	204 U	13.8 B	2.04 U	**8.61 =**	2.04 U	**0.896 J**	2.04 U
E-16 BNW10	E-16-BNW10-122811-0-2	0 - 2	12/28/2011	178 U	178 U	178 U	89 U	178 U	89 U	178 U	178 U	178 U	178 U	178 U	89 U	89 U	890 U	8900 U	**109 =**	89 U	**153 J**	89 U	89 U	89 U
E-16 BNW10	E-16-BNW10-122811-3-4	3 - 4	12/28/2011	45.1 U	45.1 U	45.1 U	22.6 U	45.1 U	22.6 U	45.1 U	45.1 U	45.1 U	45.1 U	45.1 U	22.6 U	22.6 U	226 U	2260 U	**18.1 J**	22.6 U	**8.19 J**	22.6 U	22.6 U	22.6 U
E-16 BNW10	E-16-BNW10-122811-3-4 FD	3 - 4	12/28/2011	45.3 U	45.3 U	45.3 U	22.6 U	45.3 U	22.6 U	45.3 U	45.3 U	45.3 U	45.3 U	45.3 U	22.6 U	22.6 U	226 U	2260 U	**3.96 J**	22.6 U	45.3 U	22.6 U	22.6 U	22.6 U
E-16 C	E16-C-121411-8-9	8 - 9	12/14/2011	4.33 U	4.33 U	4.33 U	2.17 U	4.33 U	2.17 U	4.33 U	4.33 U	4.33 U	4.33 U	4.33 U	2.17 U	2.17 U	21.7 U	217 U	2.52 B	2.17 U	**26.3 =**	**6.32 =**	**1.29 J**	2.17 U
E-16 CNW15	E-16-CNW15-122811-0-2	0 - 2	12/28/2011	2280 U	2280 U	2280 U	1140 U	2280 U	1140 U	2280 U	2280 U	2280 U	2280 U	2280 U	1140 U	1140 U	11400 U	114000 U	**319 J**	1140 U	**10600 =**	1140 U	1140 U	1140 U
E-16 CNW15	E-16-CNW15-122811-3-4	3 - 4	12/28/2011	44.9 U	44.9 U	44.9 U	22.5 U	44.9 U	22.5 U	44.9 U	44.9 U	44.9 U	44.9 U	44.9 U	22.5 U	22.5 U	225 U	2250 U	**37.7 =**	22.5 U	**118 =**	22.5 U	22.5 U	22.5 U
E-16 CNW15	E-16-CNW15-122811-3-4 FD	3 - 4	12/28/2011	44.6 U	44.6 U	44.6 U	22.3 U	44.6 U	22.3 U	44.6 U	44.6 U	44.6 U	44.6 U	44.6 U	22.3 U	22.3 U	223 U	2230 U	**6.69 J**	22.3 U	**147 =**	22.3 U	22.3 U	22.3 U
E-16 D	E16-D-121411-3-4	3 - 4	12/14/2011	179 U	179 U	179 U	89.3 U	179 U	89.3 U	179 U	179 U	179 U	179 U	179 U	89.3 U	89.3 U	893 U	8930 U	1100 B	89.3 U	**323 =**	**88.2 J**	**71.6 J**	89.3 U
E-16 D	E16-D-121411-4-5	4 - 5	12/14/2011	184 U	184 U	184 U	91.9 U	184 U	91.9 U	184 U	184 U	184 U	184 U	184 U	91.9 U	91.9 U	919 U	9190 U	38.8 JB	91.9 U	**1240 =**	**47.4 J**	**13.9 J**	91.9 U
E-16 D	E16-D-121411-5-6	5 - 6	12/14/2011	188 U	188 U	188 U	93.8 U	188 U	93.8 U	188 U	188 U	188 U	188 U	188 U	93.8 U	93.8 U	938 U	9380 U	**7220 =**	93.8 U	**746 =**	**128 =**	**264 =**	93.8 U
E-16 D	E16-D-121411-9-10	9 - 10	12/14/2011	454 U	454 U	454 U	227 U	454 U	227 U	454 U	454 U	454 U	454 U	454 U	227 U	227 U	2270 U	22700 U	3660 B	227 U	**493 =**	**136 J**	**115 J**	227 U
E-16 D	E16-D-121411-9-10FD	9 - 10	12/14/2011	43.6 U	43.6 U	**5.67 J**	21.8 U	43.6 U	21.8 U	43.6 U	43.6 U	43.6 U	43.6 U	43.6 U	21.8 U	21.8 U	218 U	2180 U	**179 B**	21.8 U	**221 =**	**93.9 =**	**31.2 =**	21.8 U
E-16 DNW5	E-16-DNW5-122011-0-2	0 - 2	12/20/2011	**13.6 J**	**16.8 J**	**83.1 J**	88.2 U	176 U	88.2 U	176 U	176 U	176 U	176 U	176 U	88.2 U	88.2 U	882 U	8820 U	**235 =**	88.2 U	**1790 =**	**104 =**	**60.3 J**	88.2 U
E-16 DNW5	E-16-DNW5-122011-3-4	3 - 4	12/20/2011	45.6 U	45.6 U	45.6 U	22.8 U	45.6 U	22.8 U	45.6 U	45.6 U	45.6 U	45.6 U	45.6 U	22.8 U	22.8 U	228 U	2280 U	**3.31 J**	22.8 U	**69.9 =**	**6.85 J**	22.8 U	22.8 U
E-16 DNW5	E-16-DNW5-122011-3-4 FD	3 - 4	12/20/2011	45.6 U	45.6 U	45.6 U	22.8 U	45.6 U	22.8 U	45.6 U	45.6 U	45.6 U	45.6 U	45.6 U	22.8 U	22.8 U	228 U	2280 U	22.8 U	22.8 U	**59.1 =**	22.8 U	22.8 U	22.8 U
E-16 DNW10	E-16-DNW10-122011-0-2	0 - 2	12/20/2011	180 U	180 U	**20.9 J**	90.2 U	180 U	90.2 U	180 U	180 U	180 U	180 U	180 U	90.2 U	90.2 U	902 U	9020 U	**85.5 J**	90.2 U	**1090 =**	**27.2 J**	**22.1 J**	90.2 U
E-16 DNW10	E-16-DNW10-122011-3-4	3 - 4	12/20/2011	46.1 U	46.1 U	46.1 U	23 U	46.1 U	23 U	46.1 U	46.1 U	46.1 U	46.1 U	46.1 U	23 U	23 U	230 U	2300 U	**62 =**	23 U	**102 =**	23 U	**7.96 J**	23 U
E-16 ENW15	E-16-ENW15-122811-0-2	0 - 2	12/28/2011	177 U	177 U	**25.4 J**	88.3 U	177 U	88.3 U	177 U	177 U	177 U	177 U	177 U	88.3 U	88.3 U	883 U	8830 U	**143 =**	88.3 U	**556 =**	**15.1 J**	88.3 U	88.3 U
E-16 ENW15	E-16-ENW15-122811-3-4	3 - 4	12/28/2011	45 U	45 U	45 U	22.5 U	45 U	22.5 U	45 U	45 U	45 U	45 U	45 U	22.5 U	22.5 U	225 U	2250 U	**5.53 J**	22.5 U	**30.5 J**	22.5 U	22.5 U	22.5 U
E-16 F	E16-F-121411-4-5	4 - 5	12/14/2011	176 U	176 U	176 U	88.2 U	176 U	88.2 U	176 U	**12 J**	176 U	**16.4 J**	176 U	88.2 U	88.2 U	33.1 J	8820 U	**255 =**	88.2 U	**804 =**	**223 =**	**178 =**	88.2 U
E-16 F	E16-F-121411-8-9	8 - 9	12/14/2011	4.18 U	4.18 U	4.18 U	2.09 U	4.18 U	2.09 U	4.18 U	4.18 U	4.18 U	4.18 U	4.18 U	2.09 U	2.09 U	20.9 U	209 U	**1.32 J**	2.09 U	**8.24 =**	**8.98 =**	**1.36 J**	2.09 U
E-16 H	E-16-H-121911-11-12	11 - 12	12/19/2011	9320 U	9320 U	9320 U	4660 U	9320 U	4660 U	9320 U	9320 U	9320 U	9320 U	9320 U	4660 U	4660 U	46600 U	466000 U	**72000 =**	4660 U	**14200 =**	**7440 =**	**13000 =**	4660 U
E-16 H	E-16-H-121911-16-17	16 - 17	12/19/2011	21700 U	21700 U	21700 U	10800 U	21700 U	10800 U	21700 U	21700 U	21700 U	21700 U	21700 U	10800 U	10800 U	108000 U	1080000 U	**174000 =**	10800 U	**21700 =**	**9330 J**	**13000 =**	10800 U
E-16 H	E-16-H-121911-20-21	20 - 21	12/19/2011	1690 U	1690 U	1690 U	845 U	1690 U	845 U	1690 U	1690 U	1690 U	1690 U	1690 U	845 U	845 U	8450 U	84500 U	**1380 =**	845 U	**2540 =**	**1230 =**	**1380 =**	845 U
E-16 H	E-16-H-121911-22-23	22 - 23	12/19/2011	4120 U	4120 U	4120 U	2060 U	4120 U	2060 U	4120 U	4120 U	4120 U	4120 U	4120 U	2060 U	2060 U	20600 U	206000 U	**34300 =**	2060 U	**4670 =**	**3830 =**	**7760 =**	2060 U
E-16 H	E-16-H-121911-23-24	23 - 24	12/19/2011	4.17 U	4.17 U	4.17 U	2.09 U	4.17 U	2.09 U	4.17 U	4.17 U	4.17 U	4.17 U	4.17 U	2.09 U	2.09 U	20.9 U	209 U	**6570 =**	2.09 U	**1600 =**	**908 =**	**854 =**	2.09 U
E-16 J	E16-J-121411-3-4	3 - 4	12/14/2011	22200 U	22200 U	22200 U	11100 U	22200 U	11100 U	22200 U	22200 U	22200 U	22200 U	22200 U	11100 U	11100 U	111000 U	1110000 U	90600 B	11100 U	**23200 =**	**3520 J**	**5240 J**	11100 U
E-16 J	E16-J-121411-6-7	6 - 7	12/14/2011	924 U	924 U	924 U	462 U	924 U	462 U	924 U	924 U	924 U	924 U	924 U	462 U	462 U	4620 U	46200 U	4080 B	462 U	**1010 =**	**2970 =**	**2090 =**	462 U
E-16 J	E16-J-121411-9-10	9 - 10	12/14/2011	46 U	46 U	46 U	23 U	46 U	23 U	46 U	46 U	46 U	46 U	46 U	23 U	23 U	230 U	2300 U	**18.5 JB**	23 U	**6.62 J**	**15.2 J**	**9.42 J**	23 U
E-16 K	E16-K-121511-5-6	5 - 6	12/15/2011	4720 U	4720 U	4720 U	2360 U	4720 U	2360 U	4720 U	4720 U	4720 U	4720 U	4720 U	2360 U	2360 U	23600 U	236000 U	**46000 =**	2360 U	**8920 =**	**1830 J**	**3660 =**	2360 U
E-16 K	E16-K-121511-7-8	7 - 8	12/15/2011	89.9 U	89.9 U	89.9 U	45 U	89.9 U	45 U	89.9 U	89.9 U	89.9 U	89.9 U	89.9 U	45 U	45 U	450 U	4500 U	**34.4 J**	45 U	**80.2 J**	45 U	45 U	45 U
E-16 K	E16-K-121511-10-11	10 - 11	12/15/2011	2280 U	2280 U	2280 U	1140 U	2280 U	1140 U	2280 U	2280 U	2280 U	2280 U	2280 U	1140 U	1140 U	11400 U	114000 U	**14500 =**	1140 U	**2920 =**	**1140 =**	**1140 =**	1140 U
E-16 K	E16-K-121511-11-12	11 - 12	12/15/2011	171 U	171 U	171 U	85.6 U	171 U	85.6 U	171 U	171 U	171 U	171 U	171 U	85.6 U	85.6 U	856 U	8560 U	**2260 =**	85.6 U	**649 =**	**118 =**	**178 =**	85.6 U
E-16 K	E16-K-121511-13-14	13 - 14	12/15/2011	4.09 U	4.09 U	4.09 U	2.04 U	4.09 U	2.04 U	4.09 U	4.09 U	4.09 U	4.09 U	4.09 U	2.04 U	2.04 U	20.4 U	204 U	**0.87 J**	2.04 U	**5.57 =**	2.04 U	2.04 U	2.04 U
E-16 K	E16-K-121511-14-15	14 - 15	12/15/2011	4.05 U	4.05 U	4.05 U	2.03 U	4.05 U	2.03 U	4.05 U	4.05 U	4.05 U	4.05 U	4.05 U	2.03 U	2.03 U	20.3 U	203 U	**1.5 J**	2.03 U	**3.59 J**	2.03 U	2.03 U	2.03 U
E-16 KK	E16-KK-121511-5-6	5 - 6	12/15/2011	4550 U	4550 U	4550 U	2270 U	4550 U	2270 U	4550 U	4550 U	4550 U	4550 U	4550 U	2270 U	2270 U	22700 U	227000 U	**420000 =**	2270 U	**68100 J**	**15900 =**	**23000 =**	2270 U
E-16 KK	E16-KK-121511-5-6 FD	5 - 6	12/15/2011	4630 U	4630 U	4630 U	2310 U	4630 U	2310 U	4630 U	4630 U	4630 U	4630 U	4630 U	2310 U	2310 U	23100 U	231000 U	**318000 =**	2310 U	**52200 J**	**9700 =**	**16800 =**	2310 U
E-16 KK	E16-KK-121511-9-10	9 - 10	12/15/2011	4.4 U	4.4 U	4.4 U	2.2 U	4.4 U	2.2 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	2.2 U	2.2 U	22 U	220 U	**5.7 =**	2.2 U	**5.26 =**	2.2 U	**0.638 J**	2.2 U
E-16 KK	E16-KK-121511-9-10 FD	9 - 10	12/15/2011	4.37 U	4.37 U	4.37 U	2.19 U	4.37 U	2.19 U	4.37 U	4.37 U	4.37 U	4.37 U	4.37 U	2.19 U	2.19 U	21.9 U	219 U	**5.56 =**	2.19 U	**4.56 =**	2.19 U	**0.522 J**	2.19 U
E-16 KK	E16-KK-121511-10-11	10 - 11	12/15/2011	917000 U	917000 U	917000 U	459000 U	917000 U	459000 U	917000 U	917000 U	917000 U	917000 U	917000 U	459000 U	459000 U	4590000 U	45900000 U	**10900000 =**	459000 U	**1580000 =**	**337000 J**	**1040000 =**	459000 U
E-16 KK	E16-KK-121511-11-12	11 - 12	12/15/2011	8510 U	8510 U	8510 U	4260 U	8510 U	4260 U	8510 U	8510 U	8510 U	8510 U	8510 U	4260 U	4260 U	42600 U	426000 U	**53100 =**	4260 U	**9910 =**	**2220 J**	**2920 J**	4260 U
E-16 KK	E16-KK-121511-13-14	13 - 14	12/15/2011	4.12 U	4.12 U	4.12 U	2.06 U	4.12 U	2.06 U	4.12 U	4.12 U	4.12 U	4.12 U	4.12 U	2.06 U	2.06 U	20.6 U	206 U	**0.968 J**	2.06 U	**1.26 J**	2.06 U	2.06 U	2.06 U
E-16 KK	E16-KK-121511-14-15	14 - 15	12/15/2011	4.08 U	4.08 U	4.08 U	2.04 U	4.08 U	2.04 U	4.08 U	4.08 U	4.08 U	4.08 U	4.08 U	2.04 U	2.04 U	20.4 U	204 U	**8.6 =**	2.04 U	**1.86 J**	**0.631 J**	**0.825 J**	2.04 U
E-16 KKEW15	E-16-KKEW15-122811-4-5	4 - 5	12/28/2011	186 U	186 U	186 U	92.9 U	186 U	92.9 U	186 U	186 U	186 U	186 U	186 U	92.9 U	92.9 U	929 U	9290 U	**161 =**	92.9 U	**163 J**	**49.9 J**	**18.6 J**	92.9 U
E-16 KKEW15	E-16-KKEW15-122811-5-6	5 - 6	12/28/2011	46.3 U	46.3 U	46.3 U	23.2 U	46.3 U	23.2 U	46.3 U	46.3 U	46.3 U	46.3 U	46.3 U	23.2 U	23.2 U	232 U	2320 U	**24.3 =**	23.2 U	**55.8 =**	**38.9 =**	**5.93 J**	23.2 U
E-16 KKEW15	E-16-KKEW15-122811-9-10	9 - 10	12/28/2011	198 U	198 U	198 U	99.2 U	198 U	99.2 U	198 U	198 U	198 U	198 U	198 U	99.2 U	99.2 U	992 U	9920 U	**815 =**	99.2 U	**236 =**	**57.7 J**	**78.6 J**	99.2 U
E-16 KKEW15	E-16-KKEW15-122811-10-11	10 - 11	12/28/2011	182 U	182 U	182 U	91.2 U	182 U	91.2 U	182 U	182 U	182 U	182 U	182 U	91.2 U	91.2 U	912 U	9120 U	**159 =**	91.2 U	**214 =**	**22.5 J**	91.2 U	91.2 U
E-16 KKEW15	E-16-KKEW15-122811-11-12	11 - 12	12/28/2011	42.9 U	42.9 U	42.9 U	21.4 U	42.9 U	21.4 U	42.9 U	42.9 U	42.9 U	42.9 U	42.9 U	21.4 U	21.4 U	214 U	2140 U	**7.96 J**	21.4 U	21.4 U	21.4 U	21.4 U	21.4 U
E-16 KKEW15	E-16-KKEW15-122811-13-14	13 - 14	12/28/2011	41.4 U	41.4 U	41.4 U	20.7 U	41.4 U	20.7 U	41.4 U	41.4 U	41.4 U	41.4 U	41.4 U	20.7 U	20.7 U	207 U	2070 U	**3.94 J**	20.7 U	41.4 U	20.7 U	20.7 U	20.7 U
E-16 KKSW15	E-16-KKSW15-122811-4-5	4 - 5	12/28/2011	22200 U	22200 U	22200 U	**737000 =**	22200 U	11100 U	22200 U	22200 U	22200 U	22200 U	22200 U	11100 U	11100 U	111000 U	1110000 U	11100 U	11100 U	**99800 =**	**17400 =**	**30800 =**	11100 U
E-16 KKSW15	E-16-KKSW15-122811-5-6	5 - 6	12/28/2011	210 U	210 U	210 U	105 U	210 U	105 U	210 U	210 U	210 U	210 U	210 U	105 U	105 U	1050 U	10500 U	**1290 =**	105 U	**245 =**	**37.8 J**	**55.4 J**	105 U
E-16 KKSW15	E-16-KKSW15-122811-9-10	9 - 10	12/28/2011	4280 U	4280 U	4280 U	2140 U	4280 U	2140 U	4280 U	4280 U	4280 U	4280 U	4280 U	2140 U	2140 U	21400 U	214000 U	**26000 =**	2140 U	**4200 J**	**682 J**	**1160 J**	2140 U
E-16 KKSW15	E-16-KKSW15-122811-10-11	10 - 11	12/28/2011	41.3 U	41.3 U	41.3 U	20.6 U	41.3 U	20.6 U	41.3 U	41.3 U	41.3 U	41.3 U	41.3 U	20.6 U	20.6 U	206 U	2060 U	**33.8 =**	20.6 U	**8.67 J**	20.6 U	**3.3 J**	20.6 U
E-16 KKSW15	E-16-KKSW15-122811-11-12	11 - 12	12/28/2011	41 U	41 U	41 U	20.5 U	41 U	20.5 U	41 U	41 U	41 U	41 U	41 U	20.5 U	20.5 U	205 U	2050 U	**12.3 J**	20.5 U	41 U	20.5 U	20.5 U	20.5 U
E-16 KKSW15	E-16-KKSW15-122811-13-14	13 - 14	12/28/2011	40.1 U	40.1 U	40.1 U	20.1 U	40.1 U	20.1 U	40.1 U	40.1 U	40.1 U	40.1 U	40.1 U	20.1 U	20.1 U	201 U	2010 U	**3.57 J**	20.1 U	40.1 U	20.1 U	20.1 U	20.1 U
E-16 L	E16-L-121511-5-6	5 - 6	12/15/2011	90400 U	90400 U	90400 U	45200 U	90400 U	45200 U	90400 U	90400 U	90400 U	90400 U	90400 U	45200 U	45200 U	452000 U	4520000 U	**1840000 =**	45200 U	**244000 =**	**53700 =**	**83900 =**	45200 U
E-16 L	E16-L-121511-5-6 FD	5 - 6	12/15/2011	93300 U	93300 U	93300 U	46700 U	93300 U	46700 U	93300 U	93300 U	93300 U	93300 U	93300 U	46700 U	46700 U	467000 U	4670000 U	**2460000 =**	46700 U	**231000 =**	**60400 =**	**103000 =**	46700 U
E-16 L	E16-L-121511-10-11	10 - 11	12/15/2011	92700 U	92700 U	92700 U	46400 U	92700 U	46400 U	92700 U	92700 U	92700 U	92700 U	92700 U	46400 U	46400 U	464000 U	4640000 U	**1030000 =**	46400 U	**129000 =**	**30300 J**	**135000 =**	46400 U
E-16 L	E16-L-121511-11-12	11 - 12	12/15/2011	450000 U	450000 U	450000 U	225000 U	450000 U	225000 U	450000 U	450000 U	450000 U	450000 U	450000 U	225000 U	225000 U	2250000 U	22500000 U	**2930000 =**	225000 U	**293000 J**	**84600 J**	**271000 =**	225000 U
E-16 L	E16-L-121511-13-14	13 - 14	12/15/2011	4.27 U	4.27 U	4.27 U	2.14 U	4.27 U	2.14 U	4.27 U	4.27 U	4.27 U	4.27 U	4.27 U	2.14 U	2.14 U	21.4 U	214 U	**10.8 =**	2.14 U	**21.4 =**	2.14 U	**2.46 =**	2.14 U

TABLE 2-2 (GPA, 2012)

Soil Pesticide Data Summary - Rock Salt Warehouse

Additional Soil Investigation

Georgia Ports Authority, Bainbridge Terminal

Sample Location	Sample Identification	Sample Depth (ft)	Sample Date	4,4'DDD	4,4'DDE	4,4'-DDT	Aldrin	Dieldrin	Endsulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Heptchlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
Proposed Site-Specific RRS Values (ug/kg):				***11,000***	***7,700***	***11,000***	***660***												***660***		***3,100***	***100***	***12,000***	
E-16 L	E16-L-121511-14-15	14 - 15	12/15/2011	4.12 U	4.12 U	4.12 U	2.06 U	4.12 U	2.06 U	4.12 U	4.12 U	4.12 U	4.12 U	4.12 U	2.06 U	2.06 U	20.6 U	206 U	**7.56 =**	2.06 U	**16.7 =**	**9.86 =**	**1.06 J**	2.06 U
E-16 M	E16-M-121511-5-6	5 - 6	12/15/2011	182 U	182 U	182 U	91.1 U	182 U	91.1 U	182 U	182 U	182 U	182 U	182 U	91.1 U	91.1 U	911 U	9110 U	**26600 =**	91.1 U	**4680 =**	**1620 =**	**1890 =**	91.1 U
E-16 M	E16-M-121511-10-11	10 - 11	12/15/2011	4750 U	4750 U	4750 U	2380 U	4750 U	2380 U	4750 U	4750 U	4750 U	4750 U	4750 U	2380 U	2380 U	23800 U	238000 U	**20100 =**	2380 U	**6540 =**	**5100 =**	**1560 J**	2380 U
E-16 M	E16-M-121511-11-12	11 - 12	12/15/2011	183 U	183 U	183 U	91.3 U	183 U	91.3 U	183 U	183 U	183 U	183 U	183 U	91.3 U	91.3 U	913 U	9130 U	**3310 =**	91.3 U	**774 =**	**1010 =**	**468 =**	91.3 U
E-16 M	E16-M-121511-12-13	12 - 13	12/15/2011	182 U	182 U	182 U	90.8 U	182 U	90.8 U	182 U	182 U	182 U	182 U	182 U	90.8 U	90.8 U	908 U	9080 U	**366 =**	90.8 U	**190 =**	**78.9 J**	**15.8 J**	90.8 U
E-16 M	E16-M-121511-12-13 FD	12 - 13	12/15/2011	183 U	183 U	183 U	91.5 U	183 U	91.5 U	183 U	183 U	183 U	183 U	183 U	91.5 U	91.5 U	915 U	9150 U	**373 =**	91.5 U	**193 =**	**79.3 J**	**15.5 J**	91.5 U
E-16 M	E16-M-121511-13-14	13 - 14	12/15/2011	4.39 U	4.39 U	4.39 U	2.19 U	4.39 U	2.19 U	4.39 U	4.39 U	4.39 U	4.39 U	4.39 U	2.19 U	2.19 U	21.9 U	219 U	**8.38 =**	2.19 U	**8.31 =**	**16.6 =**	**0.809 J**	2.19 U
E-16 M	E16-M-121511-14-15	14 - 15	12/15/2011	4.28 U	4.28 U	4.28 U	2.14 U	4.28 U	2.14 U	4.28 U	4.28 U	4.28 U	4.28 U	4.28 U	2.14 U	2.14 U	21.4 U	214 U	**0.955 J**	2.14 U	**12.9 =**	2.14 U	2.14 U	2.14 U
E-16 P	E16-P-121511-5-6	5 - 6	12/15/2011	114000 U	114000 U	114000 U	56900 U	114000 U	56900 U	114000 U	114000 U	114000 U	114000 U	114000 U	56900 U	56900 U	569000 U	5690000 U	**876000 =**	56900 U	**106000 J**	**73700 =**	**196000 =**	56900 U
E-16 P	E16-P-121511-9-10	9 - 10	12/15/2011	4.41 U	4.41 U	4.41 U	2.21 U	4.41 U	2.21 U	4.41 U	4.41 U	4.41 U	4.41 U	4.41 U	2.21 U	2.21 U	22.1 U	221 U	**42.7 =**	2.21 U	**11 =**	2.21 U	**7.07 =**	2.21 U
E-16 P	E16-P-121511-10-11	10 - 11	12/15/2011	183 U	183 U	183 U	91.4 U	183 U	91.4 U	183 U	183 U	183 U	183 U	183 U	91.4 U	91.4 U	914 U	9140 U	**68200 =**	91.4 U	**6930 =**	**2260 =**	**14700 =**	91.4 U
E-16 P	E16-P-121511-11-12	11 - 12	12/15/2011	91700 U	91700 U	91700 U	45800 U	91700 U	45800 U	91700 U	91700 U	91700 U	91700 U	91700 U	45800 U	45800 U	458000 U	4580000 U	**653000 =**	45800 U	**88800 J**	**56200 =**	**138000 =**	45800 U
E-16 P	E16-P-121511-12-13	12 - 13	12/15/2011	426 U	426 U	426 U	213 U	426 U	213 U	426 U	426 U	426 U	426 U	426 U	213 U	213 U	2130 U	21300 U	**1620 =**	213 U	**426 =**	**276 =**	**267 =**	213 U
E-16 P	E16-P-121511-12-13 FD	12 - 13	12/15/2011	423 U	423 U	423 U	212 U	423 U	212 U	423 U	423 U	423 U	423 U	423 U	212 U	212 U	2120 U	21200 U	**2410 =**	212 U	**511 =**	**171 J**	**206 J**	212 U
E-16 P	E16-P-121511-13-14	13 - 14	12/15/2011	4.12 U	4.12 U	4.12 U	2.06 U	4.12 U	2.06 U	4.12 U	4.12 U	4.12 U	4.12 U	4.12 U	2.06 U	2.06 U	20.6 U	206 U	**21.7 =**	2.06 U	**6.06 =**	2.06 U	**2.32 =**	2.06 U
E-16 P	E16-P-121511-14-15	14 - 15	12/15/2011	4.14 U	4.14 U	4.14 U	2.07 U	4.14 U	2.07 U	4.14 U	4.14 U	4.14 U	4.14 U	4.14 U	2.07 U	2.07 U	20.7 U	207 U	**2.06 J**	2.07 U	**1.98 J**	2.07 U	**0.466 J**	2.07 U
E-16 P	E-16-P-122011-18-19	18 - 19	12/20/2011	164 U	164 U	164 U	82 U	164 U	82 U	164 U	164 U	164 U	164 U	164 U	82 U	82 U	820 U	8200 U	**865 =**	82 U	**281 =**	**114 =**	**135 =**	82 U
E-16 P	E-16-P-122011-19-20	19 - 20	12/20/2011	4.1 U	4.1 U	4.1 U	2.05 U	4.1 U	2.05 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	2.05 U	2.05 U	20.5 U	205 U	**0.948 J**	2.05 U	**0.923 J**	2.05 U	2.05 U	2.05 U
E-16 Q	E-16-Q-122011-15-16	15 - 16	12/20/2011	2260 U	2260 U	2260 U	1130 U	2260 U	1130 U	2260 U	2260 U	2260 U	2260 U	2260 U	1130 U	1130 U	11300 U	113000 U	**35300 =**	1130 U	**4630 =**	**2960 =**	**3760 =**	1130 U
E-16 Q	E-16-Q-122011-18-19	18 - 19	12/20/2011	910 U	910 U	910 U	455 U	910 U	455 U	910 U	910 U	910 U	910 U	910 U	455 U	455 U	4550 U	45500 U	**6450 =**	455 U	**2190 =**	**465 =**	**611 =**	455 U
E-16 Q	E-16-Q-122011-22-23	22 - 23	12/20/2011	42.1 U	42.1 U	42.1 U	21.1 U	42.1 U	21.1 U	42.1 U	42.1 U	42.1 U	42.1 U	42.1 U	21.1 U	21.1 U	211 U	2110 U	**44.5 =**	21.1 U	**19.7 J**	**6.74 J**	21.1 U	21.1 U
E-16 VWW10	E-16-V-WW10-122011-14-15	14 - 15	12/20/2011	4.6 U	4.6 U	4.6 U	2.3 U	4.6 U	2.3 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	2.3 U	2.3 U	23 U	230 U	**7.62 =**	2.3 U	**9.3 =**	2.3 U	**0.863 J**	2.3 U
E-16 VWW10	E-16-V-WW10-122011-16-17	16 - 17	12/20/2011	1820 U	1820 U	1820 U	909 U	1820 U	909 U	1820 U	1820 U	1820 U	1820 U	1820 U	909 U	909 U	9090 U	90900 U	**8410 =**	909 U	**1220 J**	**482 J**	**1320 =**	909 U
E-16 VWW10	E-16-V-WW10-122011-19-20	19 - 20	12/20/2011	4.44 U	4.44 U	4.44 U	2.22 U	4.44 U	2.22 U	4.44 U	4.44 U	4.44 U	4.44 U	4.44 U	2.22 U	2.22 U	22.2 U	222 U	**2.72 =**	2.22 U	**12.7 =**	2.22 U	**0.503 J**	2.22 U
E-16 VWW10	E-16-V-WW10-122011-20-21	20 - 21	12/20/2011	184 U	184 U	184 U	91.9 U	184 U	91.9 U	184 U	184 U	184 U	184 U	184 U	91.9 U	91.9 U	919 U	9190 U	**242 =**	91.9 U	**74.9 J**	**16.1 J**	**17.3 J**	91.9 U
E-16 VWW10	E-16-V-WW10-122011-21-22	21 - 22	12/20/2011	185 U	185 U	185 U	92.5 U	185 U	92.5 U	185 U	185 U	185 U	185 U	185 U	92.5 U	92.5 U	925 U	9250 U	**5090 =**	92.5 U	**1090 =**	**370 =**	**1500 =**	92.5 U
E-17 B	E17-B-121411-4-5	4 - 5	12/14/2011	451 U	451 U	451 U	225 U	451 U	225 U	451 U	451 U	451 U	451 U	451 U	225 U	225 U	2250 U	22500 U	**2780 =**	225 U	**485 =**	**41.1 J**	**118 J**	225 U
E-17 B	E17-B-121411-5-6	5 - 6	12/14/2011	**5.47 J**	89.6 U	22.8 J	44.8 U	89.6 U	44.8 U	89.6 U	89.6 U	89.6 U	89.6 U	89.6 U	44.8 U	44.8 U	448 U	4480 U	**122 =**	44.8 U	**420 =**	**44.7 J**	**53.4 =**	44.8 U
E-17 E	E17-E-121411-5-6	5 - 6	12/14/2011	182 U	182 U	182 U	90.8 U	182 U	90.8 U	182 U	182 U	182 U	182 U	182 U	90.8 U	90.8 U	908 U	9080 U	**2050 =**	90.8 U	**953 =**	**163 =**	**214 =**	90.8 U
E-17 E	E17-E-121411-6-7	6 - 7	12/14/2011	452 U	452 U	452 U	226 U	452 U	226 U	452 U	452 U	452 U	452 U	452 U	226 U	226 U	2260 U	22600 U	**2640 =**	226 U	**727 =**	**72.7 J**	**56.5 J**	226 U
E-17 E	E17-E-121411-7-8	7 - 8	12/14/2011	179 U	179 U	179 U	89.4 U	179 U	89.4 U	179 U	179 U	179 U	179 U	179 U	89.4 U	89.4 U	894 U	8940 U	**127 =**	89.4 U	179 U	89.4 U	**12.9 J**	89.4 U
E-17 E	E17-E-121411-8-9	8 - 9	12/14/2011	90.4 U	90.4 U	90.4 U	45.2 U	90.4 U	45.2 U	90.4 U	90.4 U	90.4 U	90.4 U	90.4 U	45.2 U	45.2 U	452 U	4520 U	**14 J**	45.2 U	90.4 U	45.2 U	45.2 U	45.2 U
E-17 E	E17-E-121411-9-10	9 - 10	12/14/2011	89.4 U	89.4 U	89.4 U	44.7 U	89.4 U	44.7 U	89.4 U	89.4 U	89.4 U	89.4 U	89.4 U	44.7 U	44.7 U	447 U	4470 U	44.7 U	44.7 U	89.4 U	44.7 U	44.7 U	44.7 U
E-17 E	E-17-E-122011-10-11	10 - 11	12/20/2011	188 U	188 U	188 U	93.9 U	188 U	93.9 U	188 U	188 U	188 U	188 U	188 U	93.9 U	93.9 U	939 U	9390 U	**49.5 J**	93.9 U	188 U	93.9 U	**14.8 J**	93.9 U
E-17 E	E-17-E-122011-12-13	12 - 13	12/20/2011	4.46 U	4.46 U	4.46 U	2.23 U	4.46 U	2.23 U	4.46 U	4.46 U	4.46 U	4.46 U	4.46 U	2.23 U	2.23 U	22.3 U	223 U	**5.17 =**	2.23 U	**9.89 =**	**2.09 J**	**1 J**	2.23 U
E-17 E	E-17-E-122011-12-13 FD	12 - 13	12/20/2011	4.48 U	4.48 U	4.48 U	2.24 U	4.48 U	2.24 U	4.48 U	4.48 U	4.48 U	4.48 U	4.48 U	2.24 U	2.24 U	22.4 U	224 U	**11.3 =**	2.24 U	**8.74 =**	**2.58 =**	**2.04 J**	2.24 U

Notes:

Unless otherwise stated, all concentrations are reported in micrograms per kilogram (ug/Kg).

Bold values indicate detected concentrations

Shaded values indicate detection above the proposed Site-Specific Risk Reduction Standards (RRS).

J = Concentration detected at or above the MDL but below the RL.

B = Contimant detected in associated method blank

TABLE 2-3 (GPA, 2012)

Soil Pesticide Data Summary - Northwest Warehouse

Additional Soil Investigation

Georgia Ports Authority, Bainbridge Terminal

Sample Location	Sample Identification	Sample Depth (ft)	Sample Date	4,4'DDD	4,4'DDE	4,4'-DDT	Aldrin	Dieldrin	Endsulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	alpha-BHC	alpha-Clordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
Proposed Site-Specific RRS Values (ug/kg):				*11,000*	*7,700*	*11,000*	*660*												*660*		*3,100*	*100*	*12,000*	
SB-01	NW-SB-01-122011-0-2	0 to 2	20-Dec-2011	177U	**18.1J**	177U	88.4U	177U	88.4U	177U	177U	177U	177U	177U	88.4U	88.4U	884U	8840U	**3260**	88.4U	**2720**	**23.5J**	**88.8**	88.4U
SB-01	NW-SB-01-122011-3-5	3 to 5	20-Dec-2011	41.8U	41.8U	41.8U	20.9U	41.8U	20.9U	41.8U	41.8U	41.8U	41.8U	41.8U	20.9U	20.9U	209U	2090U	**2.58J**	20.9U	**69.6**	20.9U	20.9U	20.9U
SB-02	NW-SB-02-122011-0-2	0 to 2	20-Dec-2011	44.3U	44.3U	44.3U	22.2U	44.3U	22.2U	44.3U	44.3U	44.3U	44.3U	44.3U	22.2U	22.2U	222U	2220U	**14.3J**	22.2U	44.3U	22.2U	22.2U	22.2U
SB-02	NW-SB-02-122011-3-5	0 to 2	20-Dec-2011	44.1U	44.1U	44.1U	22.1U	44.1U	22.1U	44.1U	44.1U	44.1U	44.1U	44.1U	22.1U	22.1U	221U	2210U	**19.9J**	22.1U	**9.07J**	**22.1U**	**4.76J**	.
SB-03	NW-SB-03-122011-0-2	0 to 2	20-Dec-2011	2280U	2280U	2280U	1140U	2280U	1140U	2280U	2280U	2280U	2280U	2280U	1140U	1140U	11400U	114000U	**16100**	1140U	**7540**	1140U	**533J**	1140U
SB-03	NW-SB-03-122011-3-5	3 to 5	20-Dec-2011	47.4U	47.4U	47.4U	23.7U	47.4U	23.7U	47.4U	47.4U	47.4U	47.4U	47.4U	23.7U	23.7U	237U	2370U	**127**	23.7U	**59.3**	**37.2**	**83**	23.7U
SB-04	NW-SB-04-122011-0-2	0 to 2	20-Dec-2011	185U	185U	185U	92.6U	185U	92.6U	185U	185U	185U	185U	185U	92.6U	92.6U	926U	9260U	**568**	92.6U	**312**	**112**	**365**	92.6U
SB-04	NW-SB-04-122011-3-5	3 to 5	20-Dec-2011	194U	194U	194U	96.9U	194U	96.9U	194U	194U	194U	194U	194U	96.9U	96.9U	969U	9690U	**233**	96.9U	**26.9J**	**106**	**389**	96.9U
SB-05	NW-SB-05-122011-0-2	0 to 2	20-Dec-2011	873000U	873000U	873000U	436000U	873000U	436000U	873000U	873000U	873000U	873000U	873000U	436000U	436000U	4360000U	43600000U	**6170000**	436000U	**815000J**	**74900J**	**1430000**	436000U
SB-05	NW-SB-05-122011-3-5	3 to 5	20-Dec-2011	193U	193U	193U	96.6U	193U	96.6U	193U	193U	193U	193U	193U	96.6U	96.6U	966U	9660U	**209**	96.6U	**161J**	**577**	**884**	96.6U
SB-06	NW-SB-06-122011-0-2	0 to 2	20-Dec-2011	1770U	1770U	1770U	887U	1770U	887U	1770U	1770U	1770U	1770U	1770U	887U	887U	8870U	88700U	**7700**	887U	**6240**	**164J**	**1270**	887U
SB-06	NW-SB-06-122011-3-5	3 to 5	20-Dec-2011	44.7U	44.7U	44.7U	22.3U	44.7U	22.3U	44.7U	44.7U	44.7U	44.7U	44.7U	22.3U	22.3U	223U	2230U	**84.6**	22.3U	**17.0J**	22.3U	**62.8**	22.3U
SB-07	NW-SB-07-122011-0-2	0 to 2	20-Dec-2011	175U	175U	175U	87.6U	175U	87.6U	175U	175U	175U	175U	175U	87.6U	87.6U	876U	8760U	87.6U	87.6U	175U	87.6U	87.6U	87.6U
SB-07	NW-SB-07-122011-3-5	3 to 5	20-Dec-2011	176U	176U	176U	88.0U	176U	88.0U	176U	176U	176U	176U	176U	88.0U	88.0U	880U	8800U	88.0U	88.0U	176U	88.0U	88.0U	88.0U
SB-08	NW-SB-08-122011-0-2	0 to 2	20-Dec-2011	903U	903U	**102J**	451U	903U	451U	903U	903U	903U	903U	903U	451U	451U	4510U	45100U	451U	451U	**5280**	451U	451U	451U
SB-08	NW-SB-08-122011-3-5	3 to 5	20-Dec-2011	44.7U	44.7U	**10.3J**	22.4U	44.7U	22.4U	44.7U	44.7U	44.7U	44.7U	44.7U	22.4U	22.4U	224U	2240U	**23.7**	22.4U	**80.4**	22.4U	**3.41J**	22.4U
SB-09	NW-SB-09-122011-0-2	0 to 2	20-Dec-2011	4470U	4470U	4470U	2230U	4470U	2230U	4470U	4470U	4470U	4470U	4470U	2230U	2230U	22300U	223000U	**23900**	2230U	**4060J**	**374J**	**761J**	2230U
SB-09	NW-SB-09-122011-3-5	3 to 5	20-Dec-2011	44.3U	**6.30J**	**39.1J**	21.7U	43.3U	21.7U	43.3U	43.3U	43.3U	43.3U	43.3U	21.7U	21.7U	217U	2170U	**261**	21.7U	**348**	**58.7**	**152**	21.7U
SB-10	NW-SB-10-122011-0-2	0 to 2	20-Dec-2011	1780U	1780U	1780U	892U	1780U	892U	1780U	1780U	1780U	1780U	1780U	892U	892U	8920U	89200U	**1690**	892U	**10700**	**1670**	**429J**	892U
SB-10	NW-SB-10-122011-3-5	3 to 5	20-Dec-2011	878U	878U	**730J**	439U	878U	439U	878U	878U	878U	878U	878U	439U	439U	4390U	43900U	**166J**	439U	**4830**	**136J**	**66.3J**	439U
SB-11	NW-SB-11-122011-0-2	0 to 2	20-Dec-2011	**48.3J**	**67.9J**	**44.9J**	87.0U	174U	87.0U	174U	174U	174U	174U	174U	87.0U	87.0U	870U	8700U	**192**	87.0U	**7190**	**36.9J**	**96.7**	87.0U
SB-11	NW-SB-11-122011-3-5	3 to 5	20-Dec-2011	185U	185U	185U	92.5U	185U	92.5U	185U	185U	185U	185U	185U	92.5U	92.5U	925U	9250U	92.5U	92.5U	185U	92.5U	92.5U	92.5U
SB-12	NW-SB-12-122011-0-2	0 to 2	20-Dec-2011	11700U	11700U	11700U	5860U	11700U	5860U	11700U	11700U	11700U	11700U	11700U	5860U	5860U	58600U	586000U	**52100**	5860U	**8620J**	**4330J**	**9430**	5860U
SB-12	NW-SB-12-122011-3-5	3 to 5	20-Dec-2011	45.4U	45.4U	45.4U	22.7U	45.4U	22.7U	45.4U	45.4U	45.4U	45.4U	45.4U	22.7U	22.7U	227U	2270U	**182**	22.7U	**114**	**45.5**	**32.4**	22.7U

Notes:

Unless otherwise stated, all concentrations are reported in micrograms per kilogram (ug/Kg).

Bold values indicate detection either above the Method Detection Limit (MDL) or less than or more than the Reporting Limit (RL). If concentrations are reported at less than the RL, the value is accompanied by a "J" qualifier.

Bolded and shaded values indicate detection above the proposed Site-Specific Risk Reduction Standards (RRS).

J = Concentration detected at or less than the MDL.

TABLE 2-4 (GPA, 2012)

Soil Pesticide Data Summary - Drainage Ditch / Swales

Additional Soil Investigation

Georgia Ports Authority, Bainbridge Terminal

Sample Location	Sample Identification	Sample Depth (ft)	Sample Date	4,4'DDD	4,4'DDE	4,4'-DDT	Aldrin	Dieldrin	Endsulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	alpha-BHC	alpha-Chlordane	beta-BHC	delta-BHC	gamma-BHC (Lindane)	gamma-Chlordane
Proposed Site-Specific RRS Values (ug/kg):				*11,000*	*7,700*	*11,000*	*660*												*660*		*3,100*	*100*	*12,000*	
SD-01	SD-01-121311	0.0 - 0.5	12/13/2011	**2.01 J**	6.49 U	**1.96 J**	3.24 U	6.49 U	3.24 U	6.49 U	6.49 U	6.49 U	6.49 U	6.49 U	3.24 U	3.24 U	32.4 U	324 U	**12.6 B**	3.24 U	**28.6 =**	**3.04 J**	**2.3 J**	3.24 U
SD-02	SD-02-121311	0.0 - 0.5	12/13/2011	**25 J**	232 U	**50.1 J**	116 U	232 U	116 U	232 U	**23.6 J**	232 U	**32.4 J**	232 U	116 U	116 U	**17.5 J**	11600 U	**16.1 J**	116 U	**113 J**	116 U	116 U	116 U
SD-02	SD-02FD-121311	0.0 - 0.5	12/13/2011	220 U	220 U	**39 J**	110 U	220 U	110 U	220 U	220 U	220 U	220 U	220 U	110 U	110 U	**19.3 J**	11000 U	110 U	110 U	**74.4 J**	110 U	110 U	110 U
SD-03	SD-03-121311	0.0 - 0.5	12/13/2011	**5.94 J**	**18.4 J**	**33.3 J**	45.7 U	91.4 U	45.7 U	91.4 U	91.4 U	91.4 U	91.4 U	91.4 U	45.7 U	45.7 U	457 U	4570 U	**33.3 JB**	45.7 U	**146 =**	**11.6 J**	**8.36 J**	45.7 U
SD-04	SD-04-121311	0.0 - 0.5	12/13/2011	**11.5 J**	**47.8 J**	**63.9 J**	45.7 U	91.4 U	45.7 U	91.4 U	91.4 U	91.4 U	91.4 U	91.4 U	45.7 U	45.7 U	457 U	4570 U	**21.5 JB**	45.7 U	**294 =**	**12.8 J**	**13.9 J**	45.7 U
SD-05	SD-05-121311	0.0 - 0.5	12/13/2011	84.7 U	84.7 U	**7.58 J**	42.4 U	84.7 U	42.4 U	84.7 U	84.7 U	84.7 U	84.7 U	84.7 U	42.4 U	42.4 U	424 U	4240 U	**79.8 B**	42.4 U	**17.4 J**	42.4 U	42.4 U	42.4 U
SD-06	SD-06-121311	0.0 - 0.5	12/13/2011	2140 U	2140 U	2140 U	1070 U	2140 U	1070 U	2140 U	2140 U	2140 U	2140 U	2140 U	1070 U	1070 U	10700 U	107000 U	**140 JB**	1070 U	**14400 =**	1070 U	1070 U	1070 U
SD-07	SD-07-121311	0.0 - 0.5	12/13/2011	86.1 U	86.1 U	86.1 U	43 U	86.1 U	43 U	86.1 U	86.1 U	86.1 U	86.1 U	86.1 U	43 U	43 U	430 U	4300 U	43 U	43 U	86.1 U	43 U	43 U	43 U
SD-08	SD-08-121311	0.0 - 0.5	12/13/2011	84.6 U	84.6 U	84.6 U	42.3 U	84.6 U	42.3 U	84.6 U	84.6 U	84.6 U	84.6 U	84.6 U	42.3 U	42.3 U	423 U	4230 U	**6.73 JB**	42.3 U	**205 =**	42.3 U	42.3 U	42.3 U
SD-09	SD-09-121311	0.0 - 0.5	12/13/2011	96.6 U	96.6 U	96.6 U	48.3 U	96.6 U	48.3 U	96.6 U	96.6 U	96.6 U	96.6 U	96.6 U	48.3 U	48.3 U	483 U	4830 U	**8.5 JB**	48.3 U	**39.1 J**	48.3 U	48.3 U	48.3 U
SD-10	SD-10-121311	0.0 - 0.5	12/13/2011	**8.29 J**	**13.3 J**	**16.7 J**	47.3 U	94.7 U	47.3 U	94.7 U	94.7 U	94.7 U	94.7 U	94.7 U	47.3 U	47.3 U	473 U	4730 U	**34.5 JB**	47.3 U	**342 =**	**20.3 J**	47.3 U	47.3 U

Notes:

Unless otherwise stated, all concentrations are reported in micrograms per kilogram (µg/Kg)

Bold values indicate detected concentrations

J = Concentration detected at or above the MDL but below the RL

B = Compound was detected in the associated Method Blank

Table 2-5 - Historic Groundwater Sampling Events at GPA Bainbridge Terminal Site

Sampling Entity	Month/Year Samples Collected	Source	Wells Sampled	Site Area
LawGibb Group	Aug-93	Revised Nov. 2, 2001 CSR	MW-1, MW-2, MW-3	South
LawGibb Group	Sep-93	Revised Nov. 2, 2001 CSR	MW-1A, MW-2 to MW-5	South
LawGibb Group	Nov-93	Revised Nov. 2, 2001 CSR	MW-1, MW-1A, MW-2 to MW-5	South
LawGibb Group	Sep-99	Revised Nov. 2, 2001 CSR	MW-1A, MW-2, MW-3	South
LawGibb Group	Jul-01	Revised Nov. 2, 2001 CSR	MW-4U, MW-5D	South
LawGibb Group	Sep-01	Revised Nov. 2, 2001 CSR	MW-1A, MW-2, MW-3, MW-4U, MW-6 to MW-9	South
Law	Apr-02	Addendum 1 to Revised Nov. 2, 2001 CSR	MW-6, MW-10 to MW-13	North and South
Law	Jun-02	Addendum 1 to Revised Nov. 2, 2001 CSR	MW-7, MW-10, MW-12, MW-13	North and South
MACTEC (Formerly Law)	Apr-03	Addendum 2 to Revised Nov. 2, 2001 CSR	MW-14 to MW-16	North and South
CH2M Hill	Apr-08	June 2008 Report of Findings	MW-1, MW-1A, MW-2, MW-4U, MW-5A, MW-5D, MW-6 to MW-8, MW-10 to MW-17	North and South
CH2M Hill	Aug-09	Sept. 2009 Report of Findings	MW-1, MW-1A, MW-2, MW-4U, MW-5A, MW-5D, MW-6 to MW-8, MW-10 to MW-21	North and South
CH2M Hill	Jul-11	April 2012 First Annual Groundwater Monitoring Report	MW-1, MW-1A, MW-2, MW-5A, MW-5D, MW-6, MW-8 , MW-10 to MW-14, MW-16 to MW-18, MW-20, MW-21	North and South
CH2M Hill	Apr-12	April 2012 First Annual Groundwater Monitoring Report	MW-5A, MW-5D, MW-6, MW-8, MW-10 to MW-22	North, South, and North ROW of Spring Creek Road

CSR= Compliance Status Report

Table 2-6
Chemical Concentrations of Pesticide COC's in Groundwater Samples (Modified from Table 2 GPA, 2012)
Bainbridge Terminal - Georgia Ports Authority

	SW-846 8081B	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Heptachlor	Aldrin	Heptachlor epoxide	Endosulfan I	Dieldrin	4,4'-DDE	Endrin	Endosulfan II	4,4'-DDD	Endosulfan sulfate	4,4'-DDT	Methoxychlor	Endrin aldehyde	gamma-Chlordane	alpha-Chlordane	Endrin ketone	Toxaphene
	Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
	Site-Specific Type 4 RRS Values (ug/L)	0.5	1.6	0.1	2.6		0.2				8.4			12		8.4						
Station ID	Sample Date																					
MW-1	8/5/2009	**0.095**	**0.113**	0.051 U	**0.065**	0.051 U	0.051 U	0.051 U	**0.00462 J**	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.51 U	0.102 U	0.051 U	0.051 U	0.102 U	5.10 U
	7/13/2011	0.051 U	**0.10 J**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.102 U	0.102 U	0.102 U	**0.103**	0.102 U	0.102 U	**0.00920 J**	0.51 U	0.102 U	0.051 U	0.051 U	0.102 U	5.10 U
	4/5/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1A	8/5/2009	**0.092**	**0.158**	0.051 U	**0.063**	0.051 U	0.051 U	0.051 U	0.051 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.51 U	0.102 U	0.051 U	0.051 U	0.102 U	5.10 U
	7/13/2011	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.510 U	0.102 U	0.051 U	0.051 U	0.102 U	5.1 U
	4/5/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	8/4/2009	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/14/2011	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.500 U	0.100 U	0.050 U	0.050 U	0.100 U	5.0 U
	4/5/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4U	8/5/2009	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	0.051 U	0.101 U	5.0 U
	7/12/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/5/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5A	8/4/2009	**0.510 J**	**18**	**2.2**	**0.155 J**	1.01 U	1.01 U	1.01 U	1.01 U	**1.70 J**	2.02 U	2.02 U	2.02 U	2.02 U	2.02 U	2.02 U	10.1 U	2.02 U	1.01 U	1.01 U	**0.340 J**	101 U
	7/15/2011	**0.130**	**1.41**	**0.559**	**0.100 J**	0.104 U	0.104 U	0.104 U	0.104 U	0.208 U	0.208 U	0.208 U	0.208 U	0.208 U	0.208 U	0.208 U	1.04 U	0.208 U	0.104 U	0.104 U	0.208 U	10.4 U
	4/6/2012	**0.430 J**	**15.6 J**	**1.6 UBL**	**0.223 J**	1.01 U	**0.217 J**	1.01 U	1.01 U	**5.07**	2.02 U	2.02 U	2.02 U	2.02 U	2.02 U	2.02 U	10.1 U	2.02 U	1.01 U	1.01 U	**0.625 J**	101 U
MW-5D	8/3/2009	**1.18 J**	**23.3**	**4.7**	**0.538 J**	2.02 U	2.02 U	2.02 U	2.02 U	**0.284 J**	4.04 U	4.04 U	4.04 U	4.04 U	4.04 U	4.04 U	20.2 U	4.04 U	2.02 U	2.02 U	4.04 U	202 U
	7/15/2011	0.500 U	**8.61**	**0.47J**	**0.538 J**	0.500 U	0.500 U	0.500 U	0.500 U	**5.60**	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	1.00 U	0.500 U	0.500 U	1.00 U	50.0 U
	4/6/2012	**0.660**	**6.00 J**	**2.10 UBL**	**0.544**	0.510 U	0.510 U	0.510 U	0.510 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	5.10 U	1.02 U	5.10 U	5.10 U	1.02 U	51.0 U
MW-6	8/4/2009	**2.36**	**1.7**	**6.7**	0.505 U	0.505 U	0.505 U	0.505 U	0.505 U	1.01 U	1.01 U	1.01 U	1.01 U	1.01 U	1.01 U	1.01 U	5.05 U	1.01 U	0.505 U	0.505 U	1.01 U	50.5 U
	7/12/2011	**2.5**	**2.5**	**7.9**	0.526 U	0.526 U	0.526 U	0.526 U	0.526 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	5.26 U	1.05 U	0.526 U	0.526 U	1.05 U	52.6 U
	4/5/2012	**1.40**	**1.60 J**	**2.54 UBL**	0.253 U	0.253 U	0.253 U	0.253 U	0.253 U	0.505 U	0.505 U	0.505 U	0.505 U	0.505 U	0.505 U	0.505 U	2.53 U	0.505 U	0.253 U	0.253 U	0.505 U	25.3 U
MW-7	8/5/2009	**0.137**	**0.564**	0.051 U	**0.129**	0.051 U	0.051 U	0.051 U	0.051 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	**0.00823 J**	0.101 U	5.05 U
	7/12/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/5/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-8	8/4/2009	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/14/2011	**0.527**	**2.66**	**1.1**	**0.277**	0.250U	0.250U	0.250U	0.250U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	2.5 U	0.500U	0.250 U	0.250 U	0.500 U	25.0 U
	4/5/2012	**0.227**	**1.99 J**	**0.300 UBL**	**0.124**	0.101 U	0.101 U	0.101 U	0.101 U	0.202 U	0.202 U	0.202 U	0.202 U	0.202 U	0.202 U	0.202 U	1.01 U	0.202 U	1.01 U	1.01 U	0.202 U	10.1 U
MW-10	8/5/2009	**1.45**	**6.9**	**1.8**	**0.564**	0.505 U	0.505 U	0.505 U	0.505 U	1.01 U	1.01 U	1.01 U	1.01 U	1.01 U	1.01 U	1.01 U	5.05 U	1.01 U	0.505 U	0.505 U	1.01 U	50.5 U
	7/12/2011	**1.2**	**13**	**2.1**	**0.53**	0.521 U	0.521 U	0.521 U	0.521 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	5.21 U	1.04 U	0.521 U	0.521 U	1.04 U	52.1 U
	4/5/2012	**1.36**	**9.00 J**	**1.20 UBL**	**0.534**	0.510 U	0.510 U	0.510 U	0.510 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	5.10 U	1.02 U	5.10 U	5.10 U	1.02 U	51.0 U
MW-11	8/4/2009	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/14/2011	0.050 U	**0.072**	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.500 U	0.100U	0.050 U	0.050 U	0.100 U	5.0 U
	4/6/2012	0.051 U	**0.030 J**	0.051U	0.051U	0.051U	0.051U	0.051U	0.051U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.510 U	0.102 U	0.510 U	0.510 U	0.102 U	5.10 U
MW-12	8/4/2009	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/14/2011	**0.026J**	**0.663**	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.500 U	0.100U	0.050 U	0.050 U	0.100 U	5.0 U
	4/5/2012	**0.017 J**	**0.750**	**0.027 J**	**0.012 J**	0.052 U	0.052 U	0.052 U	0.052 U	0.103U	0.103U	0.103U	0.103U	0.103U	0.103U	0.103U	0.515 U	0.103 U	0.052 U	0.052 U	0.103 U	5.15 U
MW-13	8/4/2009	**0.12 J**	**11**	**0.630 J**	1.01 U	1.01 U	1.01 U	1.01 U	1.01 U	2.02 U	2.02 U	2.02 U	2.02 U	2.02 U	2.02 U	2.02 U	10.1 U	2.02 U	1.01 U	1.01 U	2.02 U	101 U
	7/12/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/5/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	8/4/2009	0.051 U	**0.028 J**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.510 U	0.102 U	0.051 U	0.051 U	0.102 U	5.10 U
	7/12/2011	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.505 U	0.102 U	0.051 U	0.051 U	0.102 U	5.1 U
	4/4/2012	0.051 U	**0.011J**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	0.051 U	0.101 U	5.05 U
MW-15	8/5/2009	**0.103**	**0.565**	**0.010 J**	**0.067**	0.051 U	0.051 U	0.051 U	0.051 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	0.051 U	0.101 U	5.05 U
	7/12/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/5/2012	**0.041 J**	**0.47 J**	**0.00706 UBL**	0.051 U	**0.066 J**	0.051 U	0.051 U	**0.013 J**	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.510 U	0.102 U	0.051 U	0.051 U	0.102 U	5.10 U
MW-16	8/5/2009	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	0.051 U	0.101 U	5.05 U
	7/11/2011	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.51 U	0.102 U	0.051 U	0.051 U	0.102 U	5.1 U
	4/5/2012	0.057 U	0.057U	0.057U	0.057U	0.057U	0.057U	0.057U	0.057U	0.115 U	0.115 U	0.115 U	0.115 U	0.115 U	0.115 U	10.1	0.575 U	0.115 U	0.575 U	0.575 U	0.115 U	5.75 U

Table 2-6

Chemical Concentrations of Pesticide COC's in Groundwater Samples (Modified from Table 2 GPA, 2012)

Bainbridge Terminal - Georgia Ports Authority

	SW-846 8081B	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Heptachlor	Aldrin	Heptachlor epoxide	Endosulfan I	Dieldrin	4,4'-DDE	Endrin	Endosulfan II	4,4'-DDD	Endosulfan sulfate	4,4'-DDT	Methoxychlor	Endrin aldehyde	gamma-Chlordane	alpha-Chlordane	Endrin ketone	Toxaphene
	Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
	Site-Specific Type 4 RRS Values (ug/L)	0.5	1.6	0.1	2.6		0.2				8.4			12		8.4						
Station ID	Sample Date																					
MW-17	8/4/2009	**0.017 J**	**0.37**	**0.36**	**0.011 J**	0.051 U	0.051 U	0.051 U	0.051 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	0.051 U	0.101 U	5.05 U
	7/13/2011	0.051 U	**0.420**	0.051 U	**0.00530 J**	0.051 U	0.051 U	0.051 U	0.051 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.102 U	0.51 U	0.102 U	0.051 U	0.051 U	0.102 U	5.1 U
	4/6/2012	0.051 U	**0.013 UBL**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.101 U	0.051 U	0.101 U	5.05 U
MW-18	8/6/2009	0.051 J	**0.375**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	0.051 U	0.101 U	5.05 U
	7/15/2011	0.050U	**0.230**	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.500 U	0.100 U	0.050 U	0.050 U	0.100 U	5.00 U
	4/5/2012	0.052 U	**0.400**	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	**0.025 J**	0.103 U	0.103 U	0.103 U	0.103 U	0.103 U	0.103 U	0.103 U	0.515 U	0.103 U	0.052 U	0.052 U	0.103 U	5.15 U
MW-19	8/6/2009	**0.00918 J**	**0.113**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	**0.012 J**	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	0.051 U	0.101 U	5.05 U
	7/12/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/5/2012	0.051 U	**0.036 J**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	**0.080**	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U	0.505 U	0.101 U	0.051 U	0.051 U	0.101 U	5.05 U
MW-20	8/6/2009	2.5 U	**25.7**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	2.5 U	2.5 U	5.0 U	250 U
	7/12/2011	**0.46J**	**16**	**5.90**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	5.1 U	1.02 U	0.051 U	0.051 U	1.02 U	51.0 U
	4/5/2012	**0.204 J**	**10.4 J**	**2.4 UBL**	**0.076 J**	0.532 U	0.532 U	0.532 U	0.532 U	1.06 U	1.06 U	1.06 U	1.06 U	1.06 U	1.06 U	**0.103 J**	1.06 U	0.532 U	1.06 U	0.532 U	0.532 U	1.06 U	53.2 U
MW-21	8/6/2009	**0.575**	**7.46**	0.5 U	**0.350 J**	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	0.5 U	0.5 U	1.0 U	50 U
	7/12/2011	**0.210 J**	**5.8**	**0.420 J**	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	5.1 U	1.02 U	0.051 U	0.051 U	1.02 U	51.0 U
	4/5/2012	0.115 U	**1.9 J**	**0.050 UBL**	**0.021 J**	0.115 U	0.115 U	**0.010 J**	0.115 U	0.230 U	0.230 U	0.230 U	0.230 U	0.230 U	0.230 U	0.230 U	1.15 U	0.230 U	0.115 U	0.115 U	0.230 U	11.5 U
MW-22	8/4/2009	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
	7/12/2011	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
	4/5/2012	**1.52 J**	**33.2 J**	**6.4 UBL**	**0.705 J**	2.53 U	2.53 U	2.53 U	2.53 U	5.05 U	5.05 U	5.05 U	5.05 U	5.05 U	5.05 U	5.05 U	25.3 U	5.05 U	5.05 U	2.53 U	5.05 U	253 U

Notes:

MNA - Monitored Natural Attenuation

TOC - Total Organic Carbon

ug/L - micrograms per liter

mg/L - milligrams per liter

NM - not measured

U - not detected above detection limit

NS - Not Sampled

NI - Not Installed

J - estimated value

UBL - because of detection in equipment blank, value not certain

Shading indicates value exceeds a site-specific risk reduction standard

2008 groundwater data from CH2MHill "Report of Findings & Recommendations for Further Action in Response to Notify of Deficiency Letter" dated June 2, 2008.

2009 groundwater data from CH2MHill "Results of the Bainbridge Terminal Monitoring Well & Groundwater Sampling Investigation" dated September 22, 2009.

2011 and 2012 groundwater data from CH2MHill "First Annual Groundwater Monitoring Report" dated April 2012.

Table 3-1

Groundwater Data Summary Table - MNA (GPA, 2012)

Bainbridge Terminal - Georgia Ports Authority

	Analyte	Ethane	Ethene	Methane	Manganese	TOC	Chloride	Nitrate	Sulfate
	Unit	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L
Station ID	Sample Date								
MW-1	7/13/2011	NM	NM	NM	NM	**39.6**	NM	NM	NM
MW-1A	7/13/2011	NM	NM	NM	NM	**5.6**	NM	NM	NM
MW-2	7/14/2011	NM	NM	NM	NM	**6.0**	NM	NM	NM
MW-5A	7/15/2011	1.00 U	1.00 U	5.00 U	**1.52**	**7.1**	**17.9**	**10.1**	NM
MW-5A	4/6/2012	1.00 U	1.00 U	5.00 U	**2.34**	**1.3**	**31.4**	**19.9**	**122**
MW-5D	7/15/2011	1.00 U	1.00 U	**2.30 J**	**1.93**	**4.4**	**37.0**	**9.38**	NM
MW-5D	4/6/2012	1.00 U	1.00 U	**16.7**	**1.39**	**4.0**	116	**34.3**	**200**
MW-6	7/12/2011	1.00 U	1.00 U	**37.4**	**6.08**	**3.9**	**201**	**0.608**	NM
MW-6	4/4/2012	1.00 U	1.00 U	**42.7**	**5.00**	**1.1**	**181**	0.500 U	**489**
MW-8	7/14/2011	1.00 U	1.00 U	5.00 U	**2.77**	**7.1**	**45.8**	**24.6**	NM
MW-8	4/5/2012	1.00 U	1.00 U	5.00 U	**1.54**	**0.87 J**	**29.9**	**12.7**	**357**
MW-10	7/12/2011	1.00 U	1.00 U	5.00 U	**0.88**	**7.5**	**28.4**	**4.96**	NM
MW-10	4/5/2012	1.00 U	1.00 U	5.00 U	**1.09**	**2.6**	41.3	**5.82**	**398**
MW-11	7/14/2011	NM	NM	NM	NM	**5.3**	NM	NM	NM
MW-11	4/6/2012	1.00 U	1.00 U	5.00 U	**0.086**	**2.6**	**3.18**	**4.10**	**63.2**
MW-12	7/14/2011	1.00 U	1.00 U	5.00 U	**0.0029**	**2.4**	**22.8**	**10.8**	NM
MW-12	4/5/2012	1.00 U	1.00 U	5.00 U	0.015 U	**1.1**	**23.6**	**12.2**	**253**
MW-14	7/12/2011	NM	NM	NM	NM	**4.7**	NM	NM	NM
MW-14	4/4/2012	1.00 U	1.00 U	5.00 U	0.015 U	**1.1**	**2.10**	**0.104 J**	**1.84**
MW-15	4/5/2012	NM	NM	NM	NM	**5.7**	NM	NM	NM
MW-16	7/11/2011	NM	NM	NM	NM	**1.2**	NM	NM	NM
MW-16	4/5/2012	NM	NM	NM	NM	1.0 U	NM	NM	NM
MW-17	7/13/2011	1.00 U	1.00 U	**1.72**	**0.094**	**7.2**	**9.27**	**2.04**	NM
MW-17	4/6/2012	1.00 U	1.00 U	5.00 U	0.015 U	**5.0**	**0.558**	**0.293 J**	**1.73**
MW-18	7/15/2011	NM	NM	NM	NM	**12.8**	NM	NM	NM
MW-18	4/5/2012	NM	NM	NM	NM	**4.2**	NM	NM	NM
MW-19	4/5/2012	NM	NM	NM	NM	**2.6**	NM	NM	NM
MW-20	7/12/2011	1.00 U	1.00 U	5.00 U	**1.27**	**3.7**	**11.8**	**4.66**	NM
MW-20	4/5/2012	1.00 U	**0.075 J**	5.00 U	**1.06**	**1.2**	**14.7**	**7.87**	**84.3**
MW-21	7/12/2011	1.00 U	1.00 U	5.00 U	**1.56**	**5.9**	**46.9**	**12.3**	NM

Table 3-1

Groundwater Data Summary Table - MNA (GPA, 2012)

Bainbridge Terminal - Georgia Ports Authority

Analyte		Ethane	Ethene	Methane	Manganese	TOC	Chloride	Nitrate	Sulfate
Unit		ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L
Station ID	**Sample Date**								
MW-21	**4/5/2012**	1.00 U	1.00 U	5.00 U	**0.76**	**1.5**	**9.64**	**3.03**	**81.0**
MW-22	**4/5/2012**	1.00 U	**0.220 J**	5.00 U	**0.65**	**1.7**	**9.38**	**5.47**	**233**

Notes:

MNA - Monitored Natural Attenuation

TOC - Total Organic Carbon

ug/L - micrograms per liter

mg/L - milligrams per liter

NM - not measured

U - not detected above detection limit

J - estimated value

BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

FIGURES

LEGEND

MW-3 MONITORING WELL

N.L. WELL NOT LOCATED

GPA PROPERTY LINE

DIVISION SEPARATING NORTH AND SOUTH PARCELS

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

FILE: 400001 GPA-Bainbridge\hazmat Issue\Report\General Figures.dwg

100 0 100 200 300

GRAPHICAL SCALE IN FEET
(APPROXIMATE)

DESIGNED BY: B.B. | DRAWN BY: A.A. | CHECKED BY: B.B. | APPROVED BY: B.B.

REVISIONS: NO. | DATE

SCALE:

EIC

FIGURE 1-1: SITE MAP

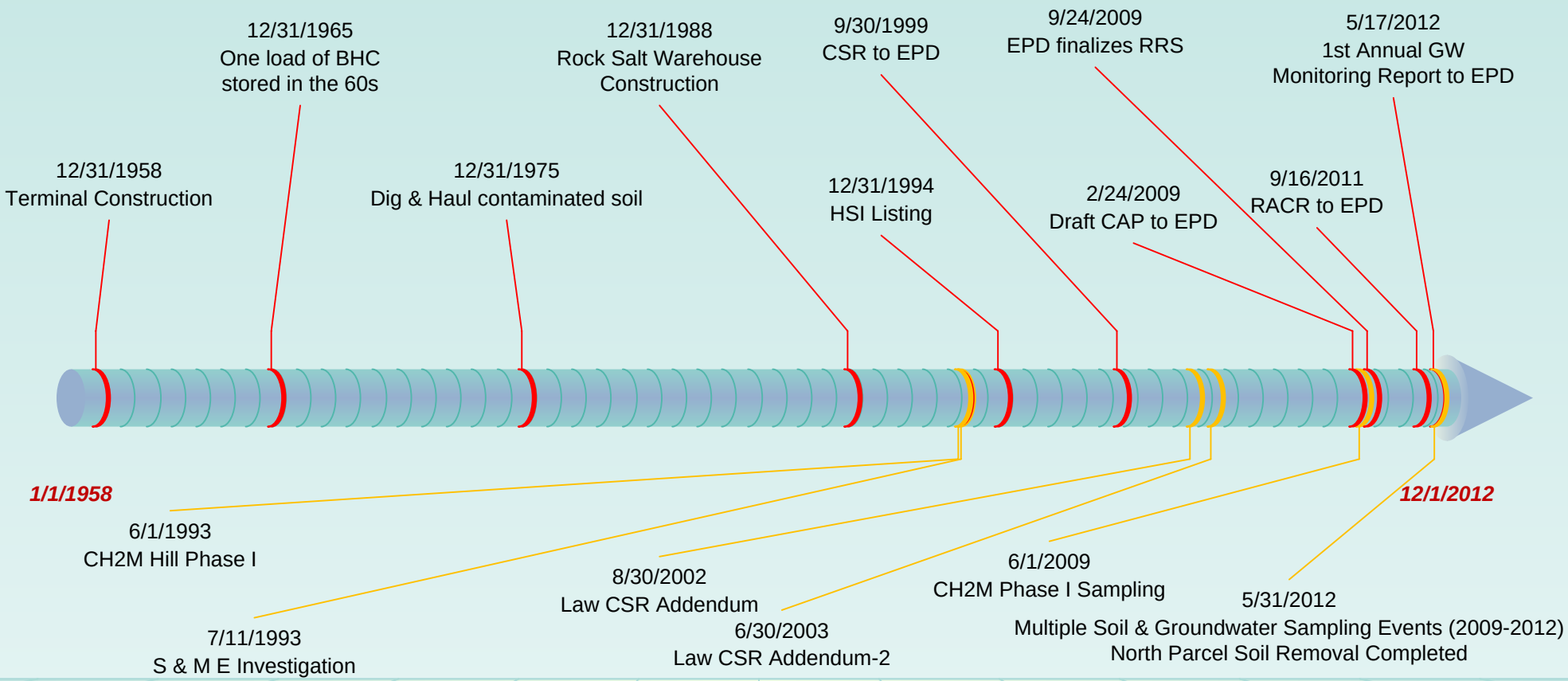
GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

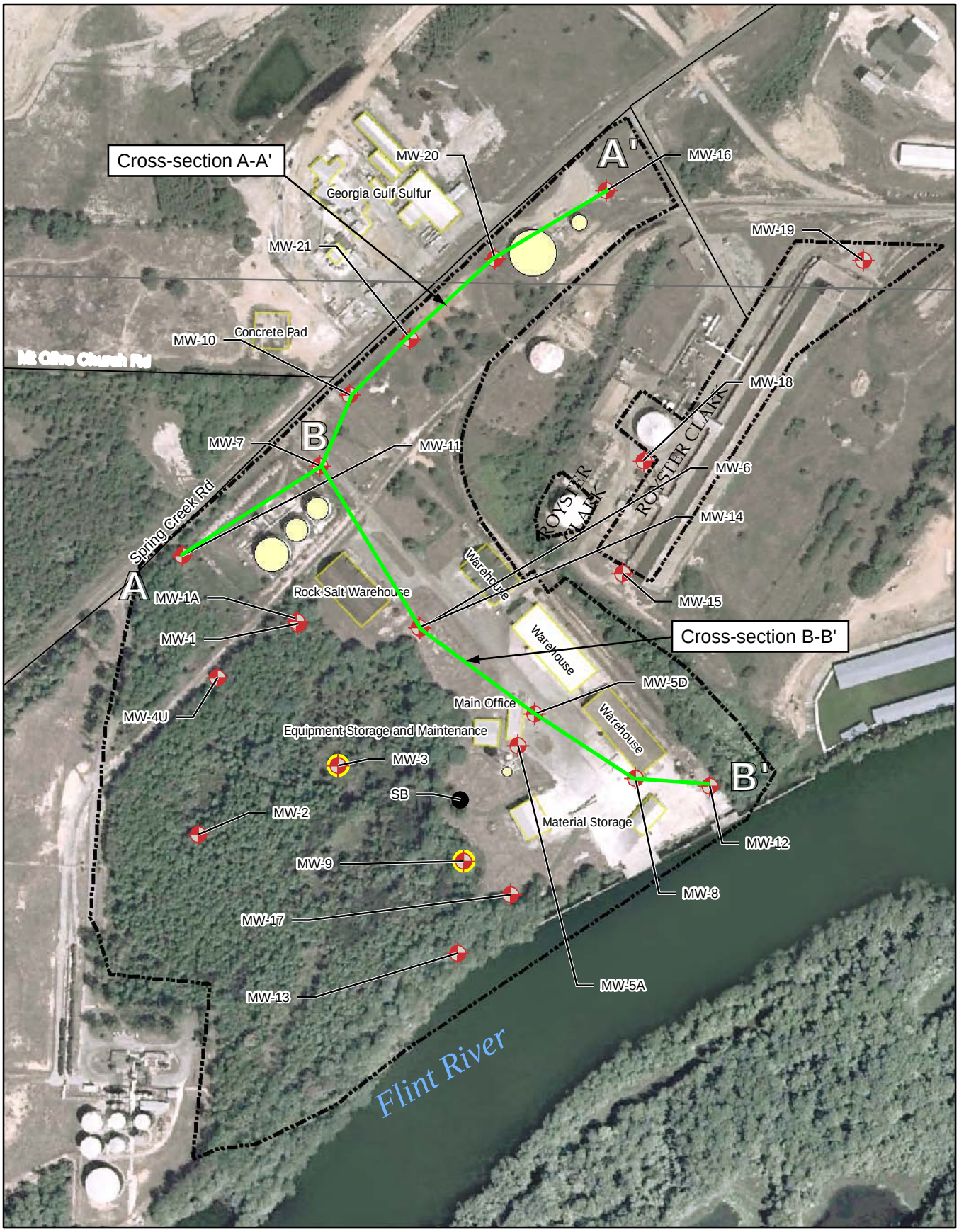
ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

SCALE: SEE BAR SCALE | DATE: | FILE NO.: Figure 1.dwg | SHEET NO.: 1 OF 1

Figure 1-2: GPA Bainbridge Milestone Chart

Terminal Activiites **Thursday, July 26, 2012**





Legend

- Groundwater Montioring Wells
- Unable to Locate
- Soil Boring
- Water Towers
- Buildings
- Approximate Property Boundaries

N

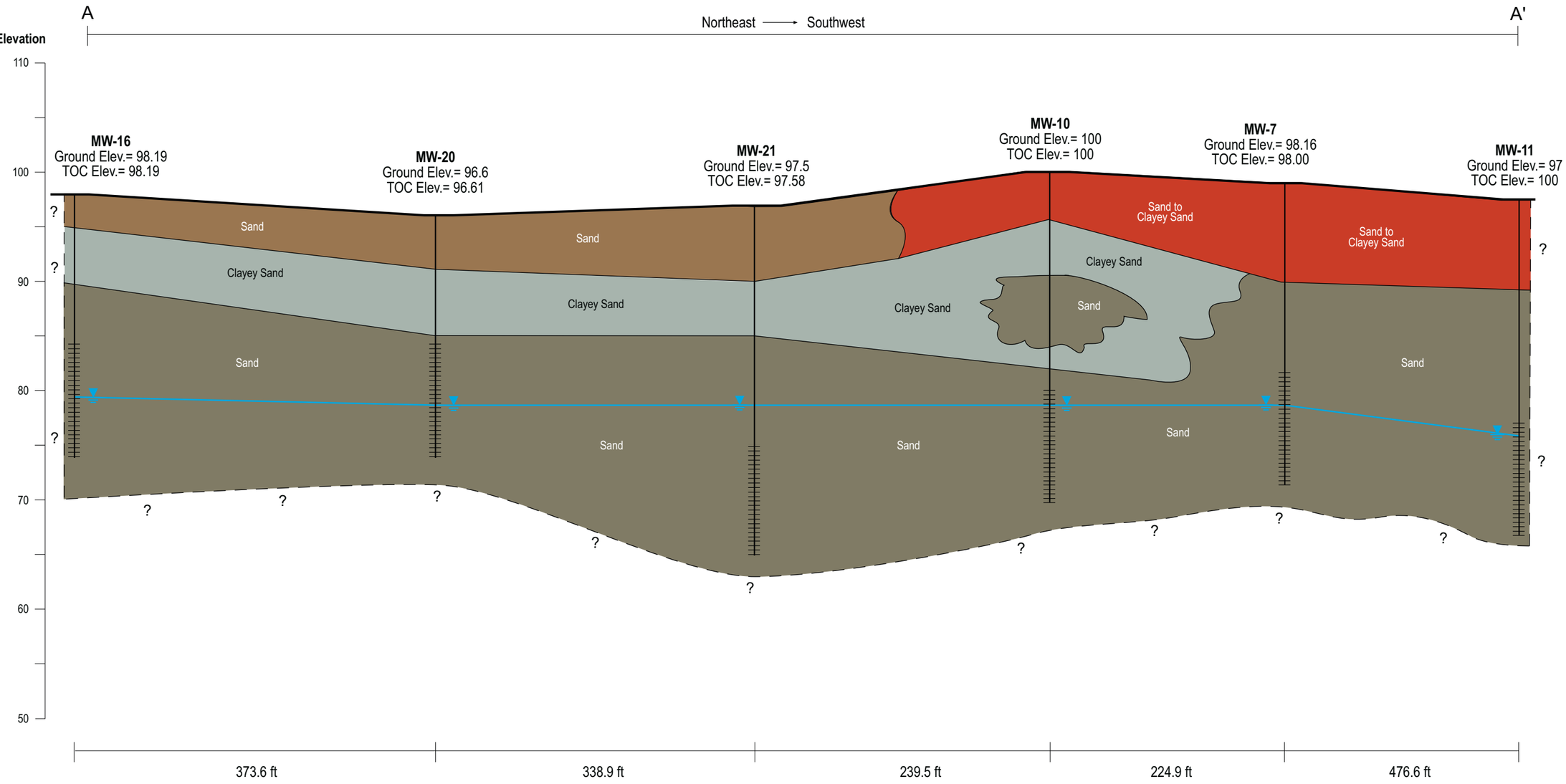
0 125 250 500 Feet

FIGURE 1-3
Cross-section Base Map
Exceedances in Groundwater (July 2009)
Georgia Ports Authority, Bainbridge, GA

CH2MHILL

\\MONTGOMERY\GROUPS\GIS\BAINBRIDGE\TERMINALENVIRONMENTALEVALUATION-200909_MGM1.MXD WMOORE4 9/11/2009 13:53:15\ES092009011ATL

Source: Figure 3 from Draft CAP



LEGEND

- Well Screen Interval
- Groundwater Table
- Interpreted Geologic Contact
- Transitional Geologic Contact
- Inferred Geologic Contact
- Sand
- Sand to Clayey Sand
- Clayey Sand
- Sand

FIGURE 1-4

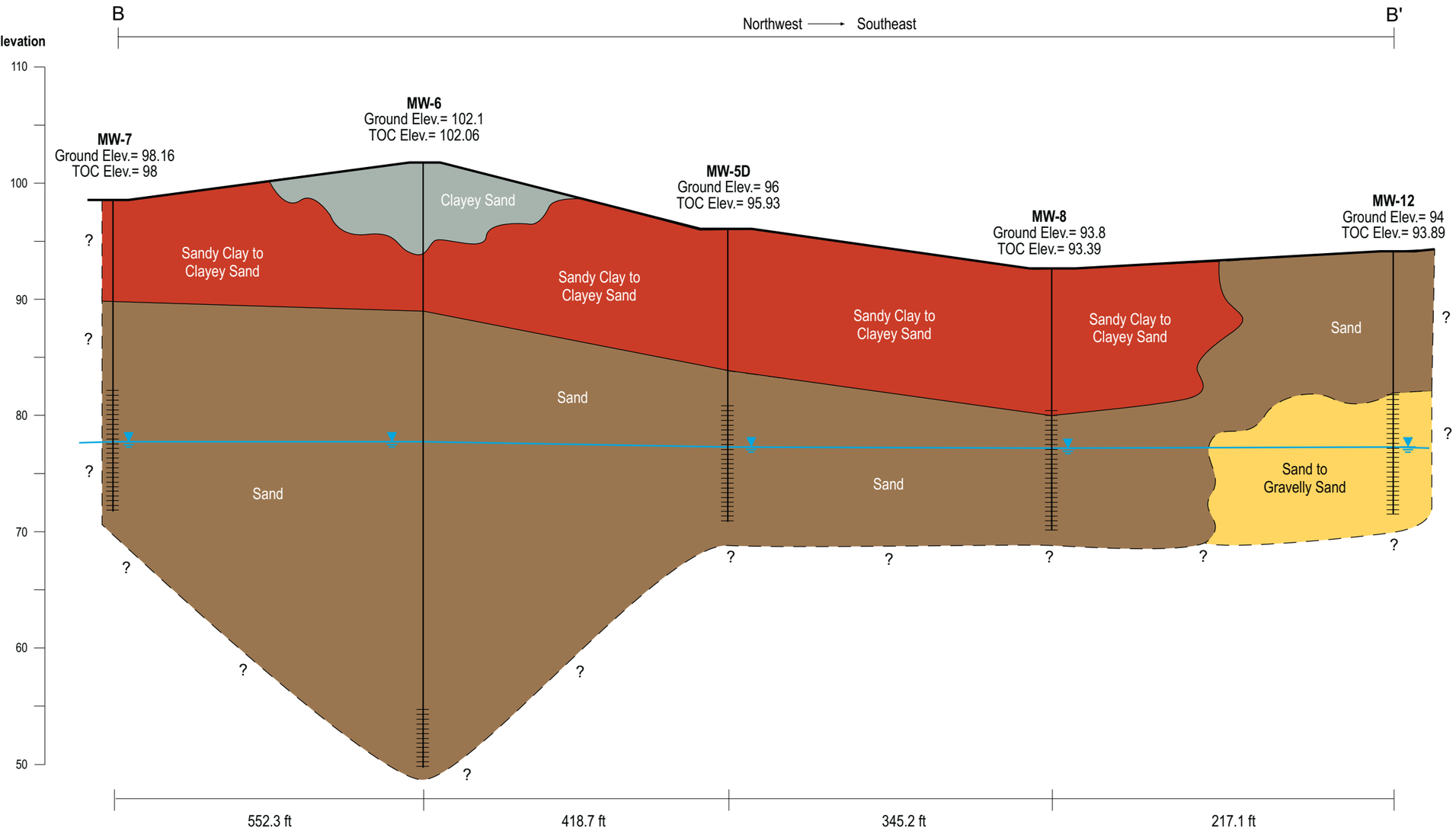
(Modifed from Figure 3A (CH2MHILL, 2009))

Lithologic Cross-Section A-A'

Georgia Ports Authority, Bainbridge, GA

CH2MHILL

ES092009011ATL 100.ai



LEGEND

- Well Screen Interval
- Groundwater Table
- Transitional Geologic Contact
- Inferred Geologic Contact
- Sand
- Sandy Clay to Clayey Sand
- Sand to Gravelly Sand
- Clayey Sand

FIGURE 1-5

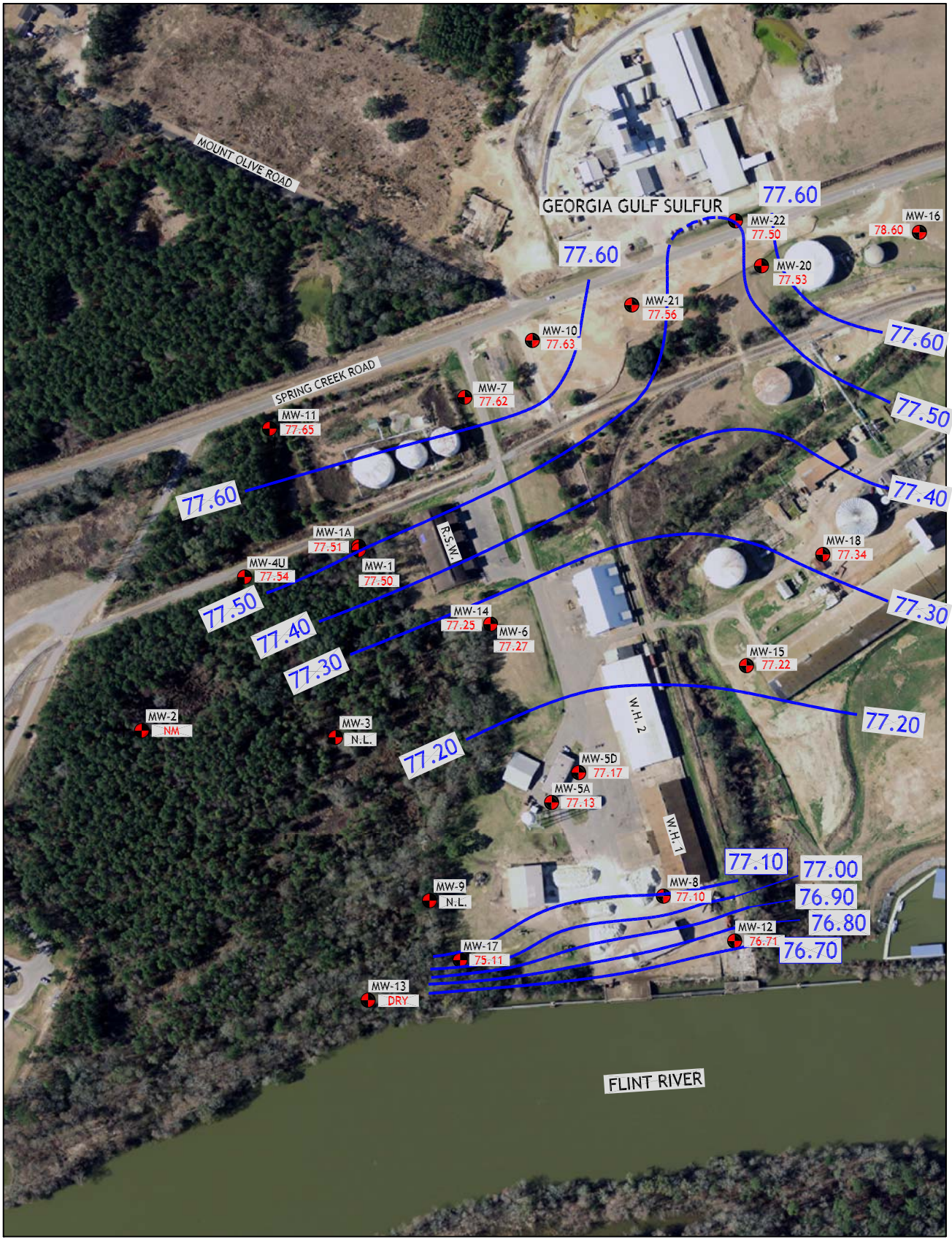
(Modified from Figure 3B (CH2MHILL, 2009))

Lithologic Cross-Section B-B'

Georgia Ports Authority, Bainbridge, GA

CH2MHILL

ES092009011ATL 101.ai



LEGEND

MW-3 MONITORING WELL

N.L. WELL NOT LOCATED

75.11 GROUNDWATER ELEVATION

NM NOT MEASURED

DRY DRY WELL

GROUNDWATER ELEVATION CONTOUR

CONTOUR INTERVAL = 0.10 FEET

100 0 100 200 300

GRAPHICAL SCALE IN FEET
(APPROXIMATE)

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.

FILE: 400001 GPA-Bainbridge\hazmat Issue\Report\General Figures.dwg

DESIGNED BY: B.E. | DRAWN BY: A.E. | CHECKED BY: B.E. | APPROVED BY: B.E.

REVISIONS: NO. | DATE

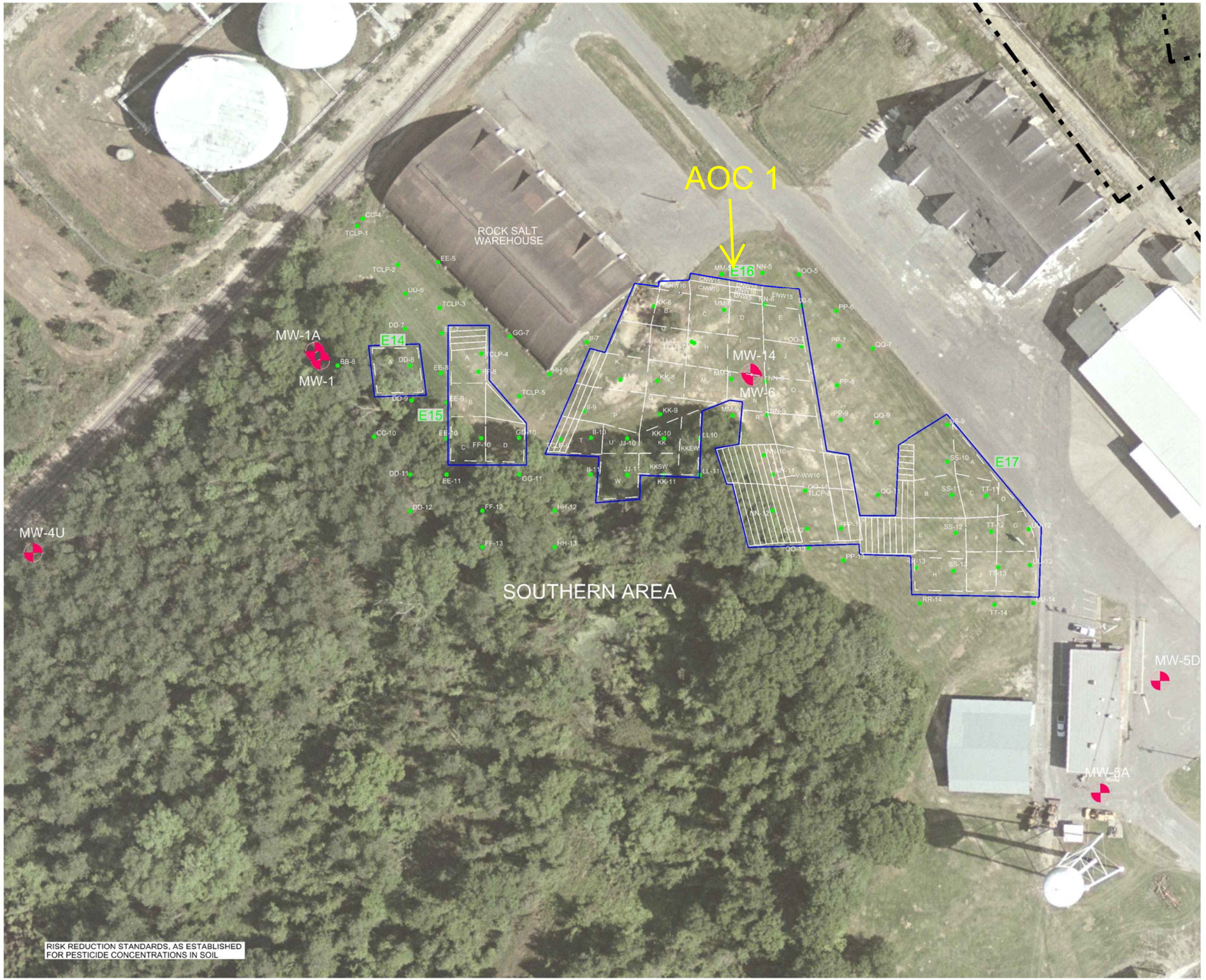
EIC

FIGURE 1-6
GROUNDWATER POTENTIOMETRIC SURFACE (APRIL 2012)

GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

SCALE: AS SHOWN | DATE: | FILE NO.: Figure 1.dwg | SHEET NO.: 1 OF 1



LEGEND:

- GROUNDWATER MONITORING WELL
- APPROXIMATE PROPERTY BOUNDARY
- AREAL EXTENT OF SOIL EXCEEDING RRS VALUES (AOC 1)
- SAMPLING GRIDS
- INVESTIGATION SOIL BORINGS COMPLETED IN 2009

FIGURE 2-1

N

0 40 80 120

Know what's below. Call before you dig.

DECEMBER 2011 SOIL SAMPLING LOCATIONS AT ROCK SALT WAREHOUSE

NO.	DATE	REVISION	DR	CHK	BY	APVD
1	12/16		E GRIGGS	APVD		

DSGN: D NELSON

CH2MHILL

SOIL REMOVAL AREAS
SOUTHERN AND NORTHERN AREAS
BAINBRIDGE TERMINIAL

Georgia Ports Authority
DEEPWATER TERMINALS BRUNSWICK, SAVANNAH
INLAND TERMINALS BAINBRIDGE, COLUMBUS

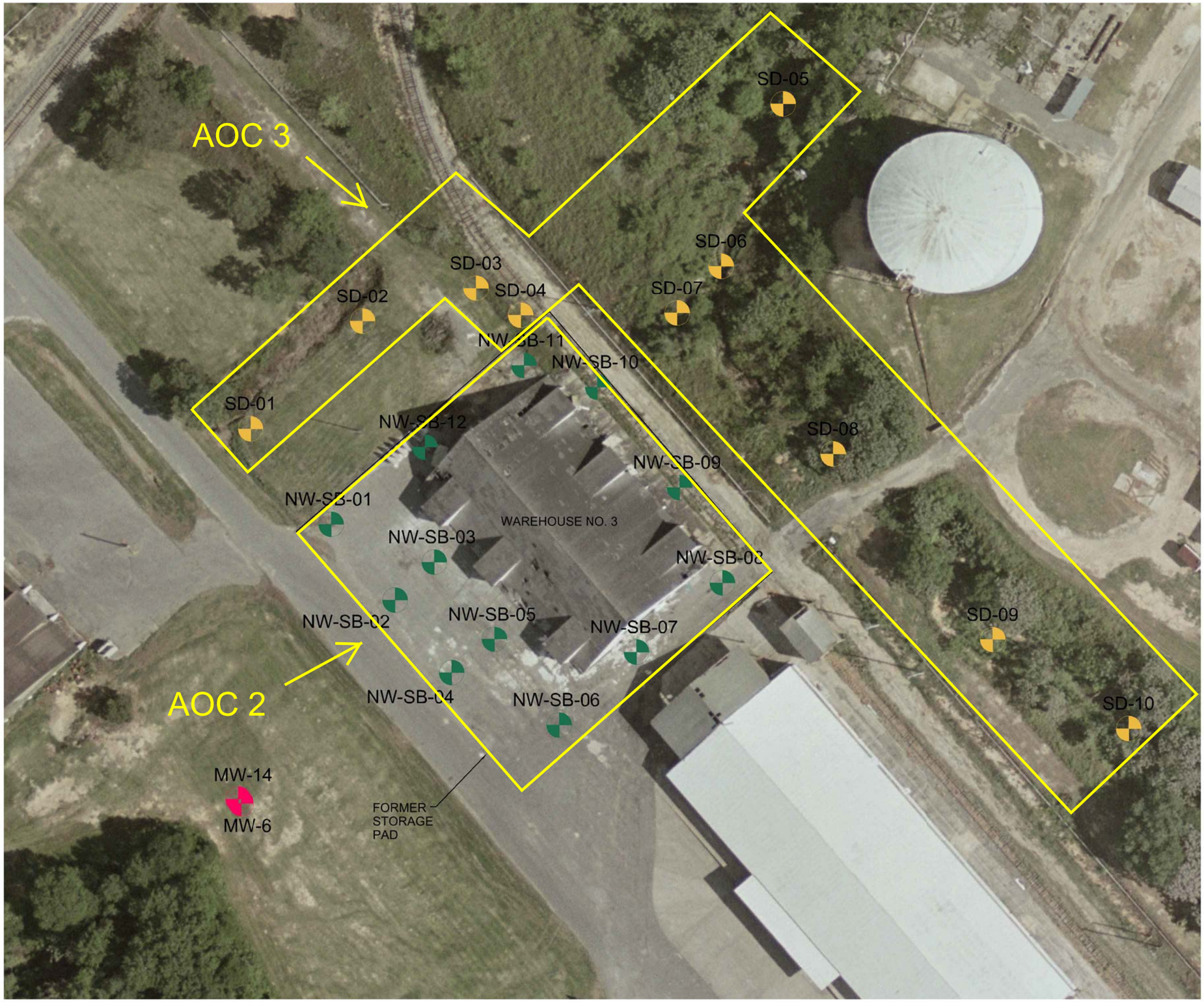
SOIL REMOVAL AND DISPOSAL
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"

DATE	
CH2M PROJ No.	392278.01
GPA PROJ No.	0905-0359
DWG	FIGURE 2
SHEET	

FILENAME: Figure 3_SoilSampLoc.dgn PLOT DATE: 2/23/2012 PLOT TIME: 5:26:54 PM

SOURCE: CH2MHILL, 2012



LEGEND:

- GROUNDWATER MONITORING WELL
- SOIL SAMPLING LOCATIONS (AOC 2)
- SOIL/SEDIMENT SAMPLING LOCATIONS (AOC 3)

FIGURE 2-2

N

0 30 60 90

Know what's below. Call before you dig.

DECEMBER 2011 SOIL AND SEDIMENT SAMPLING LOCATIONS AT NORTHERN WAREHOUSE

NO.	REVISION	BY	APVD
DSGN	D NELSON	DR	E GRIGGS
DATE		CHK	APVD

CH2MHILL

SOIL REMOVAL AREAS
SOUTHERN AND NORTHERN AREAS
BAINBRIDGE TERMINIAL

Georgia Ports Authority
DEEPWATER TERMINALS BRUNSWICK, GA/NAVAL STORES TERMINALS BAINBRIDGE, COLUMBUS

SOIL SAMPLE AND SOIL/SEDIMENT SAMPLING LOCATIONS
BAINBRIDGE TERMINAL
BAINBRIDGE GEORGIA

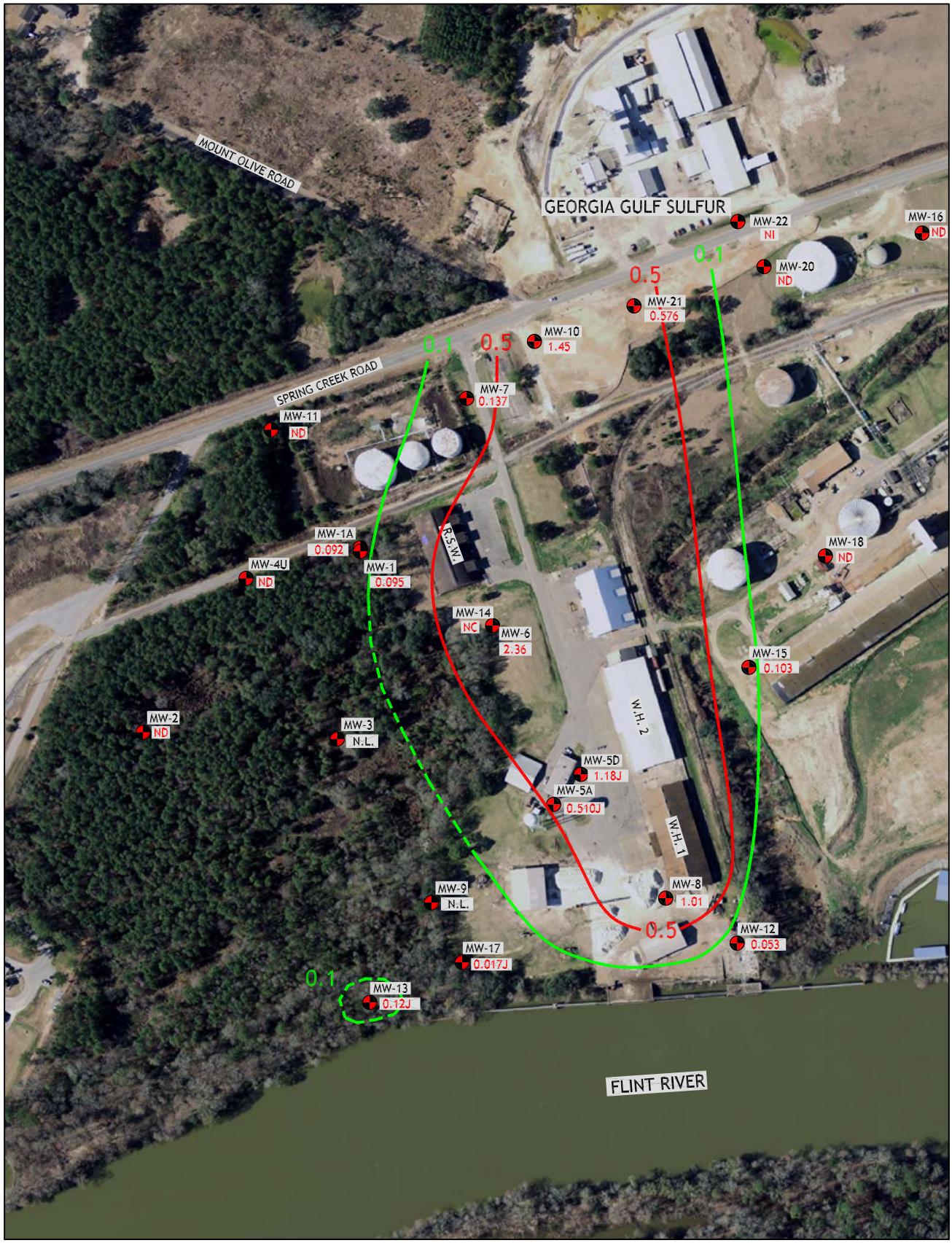
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	SEPTEMBER 2010
CH2M PROJ No.	392278.01
GPA PROJ No.	0905-0359
DWG	FIGURE 1
SHEET	

ISSUED FOR FOR CONSTRUCTION

SOURCE: CH2MHILL, 2012

FILENAME: Figure 2_SoilSedSam.dgn PLOT DATE: 2/23/2012 PLOT TIME: 12:42:16 PM



LEGEND

MW-3	MONITORING WELL	NC	NOT CONSIDERED
N.L.	WELL NOT LOCATED	NI	WELL NOT YET INSTALLED
4.7	BHC CONCENTRATION	NS	NOT SAMPLED
ND	NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"	DRY	NOT SAMPLED DUE TO DRY WELL
J	INDICATES AN "ESTIMATED VALUE": => MDL & < RDL ACCORDING TO ANALYTICAL REPORT		

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED
RRS LIMIT 0.5 ug/L
DELINEATION STD. 0.1 ug/L

100 0 100 200 300
GRAPHICAL SCALE IN FEET
(APPROXIMATE)

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.

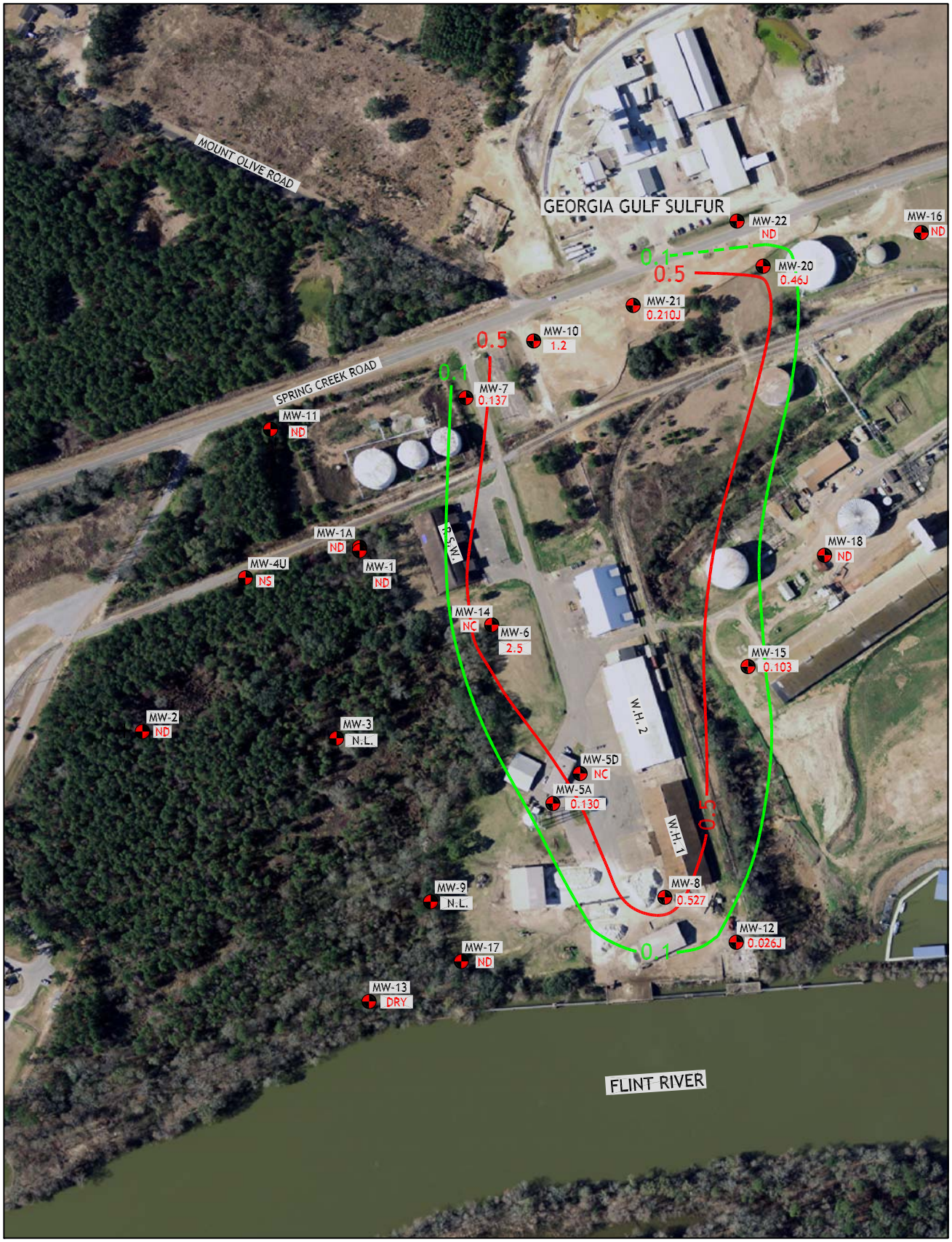
FILE: 400001 GPA-Bainbridge\hazmat issue\Report\General Figures.dwg

FIGURE 2-3
ALPHA BHC ISOCONCENTRATION CONTOUR MAP (AUGUST 2009)

GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

DESIGNED BY: A.K. | DRAWN BY: A.K. | CHECKED BY: A.K. | APPROVED BY: A.K.
REVISIONS: NO. | DATE
SCALE: AS SHOWN | DATE: 4/22/10 | FILE NO.: Figure 1.dwg | SHEET NO.: 1 OF 1



MW-3 MONITORING WELL
N.L. WELL NOT LOCATED
4.7 BHC CONCENTRATION
ND NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"
J INDICATES AN "ESTIMATED VALUE": =/> MDL & < RDL ACCORDING TO ANALYTICAL REPORT

LEGEND

NC	NOT CONSIDERED
NI	WELL NOT YET INSTALLED
NS	NOT SAMPLED
DRY	NOT SAMPLED DUE TO DRY WELL

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED
RRS LIMIT 0.5 ug/L
DELINEATION STD. 0.1 ug/L

100 0 100 200 300
GRAPHICAL SCALE IN FEET
(APPROXIMATE)

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.

FILE: 400001 GPA-Bainbridge\hazmat Issue\Report\General Figures.dwg

DESIGNED BY: A.E. | DRAWN BY: A.E. | CHECKED BY: A.E.
APPROVED BY: A.E.

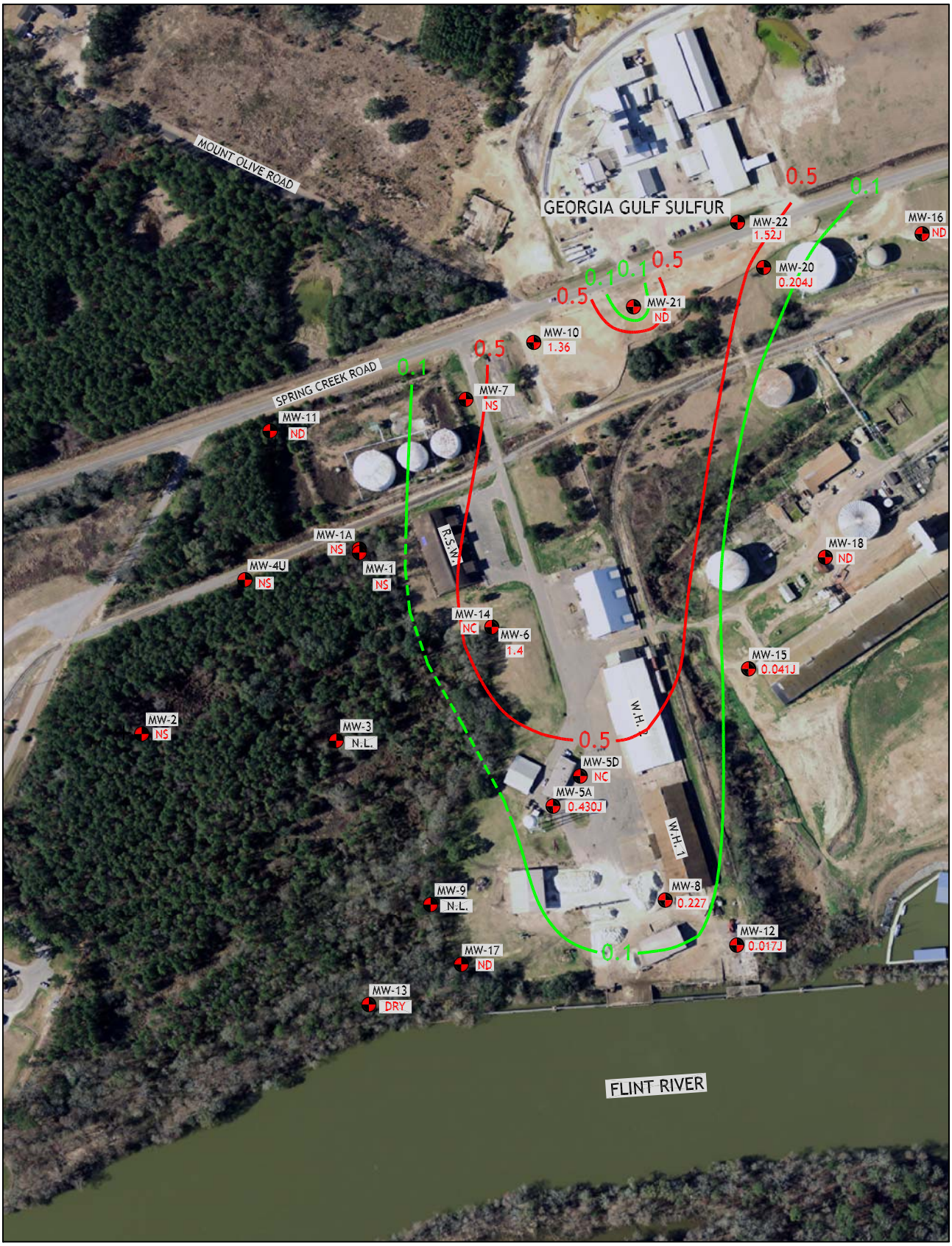
EIC

FIGURE 2-4
ALPHA BHC ISOCONCENTRATION CONTOUR MAP (JULY 2011)

GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

SCALE: SEE BAR SCALE | DATE: 4/26/12 | FILE NO.: Figure 1.dwg | SHEET NO.: 1 OF 1



LEGEND

MW-3	MONITORING WELL	NC	NOT CONSIDERED
N.L.	WELL NOT LOCATED	NI	WELL NOT YET INSTALLED
4.7	BHC CONCENTRATION	NS	NOT SAMPLED
ND	NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"	DRY	NOT SAMPLED DUE TO DRY WELL
J	INDICATES AN "ESTIMATED VALUE": =/> MDL & < RDL ACCORDING TO ANALYTICAL REPORT		

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED
RRS LIMIT 0.5 ug/L
DELINEATION STD. 0.1 ug/L

100 0 100 200 300
GRAPHICAL SCALE IN FEET
(APPROXIMATE)

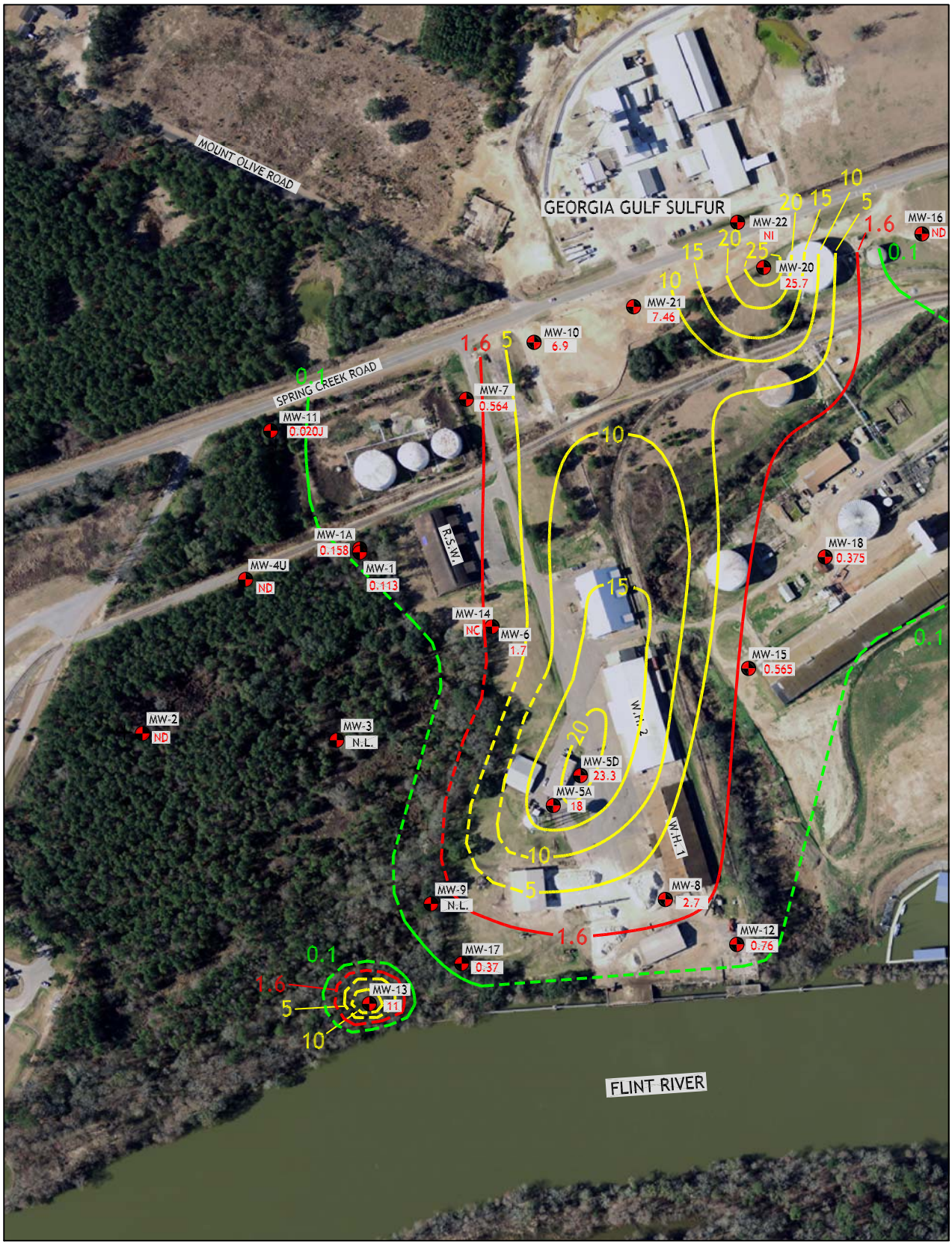
SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
DATA EXCERPTED FROM "GROUNDWATER MONITORING REPORT" DATED APRIL 2012
NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.
FILE: 400001 GPA-Bainbridge\hazmat Issue\Report\General Figures.dwg

FIGURE 2-5
ALPHA BHC ISOCONCENTRATION CONTOUR MAP (APRIL 2012)

GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

Figure 1.dwg



LEGEND

MW-3	MONITORING WELL	NC	NOT CONSIDERED
N.L.	WELL NOT LOCATED	NI	WELL NOT YET INSTALLED
4.7	BHC CONCENTRATION	NS	NOT SAMPLED
ND	NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"	DRY	NOT SAMPLED DUE TO DRY WELL
J	INDICATES AN "ESTIMATED VALUE": =/> MDL & < RDL ACCORDING TO ANALYTICAL REPORT		

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED
RRS LIMIT 1.6 ug/L
DELINEATION STD. 0.1 ug/L

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN. CONCENTRATION IN MW-19 IS 0.113 ug/L

FILE: 400001 GPA-Bainbridge\hazmat Issue\Report\General Figures.dwg

N

100 0 100 200 300

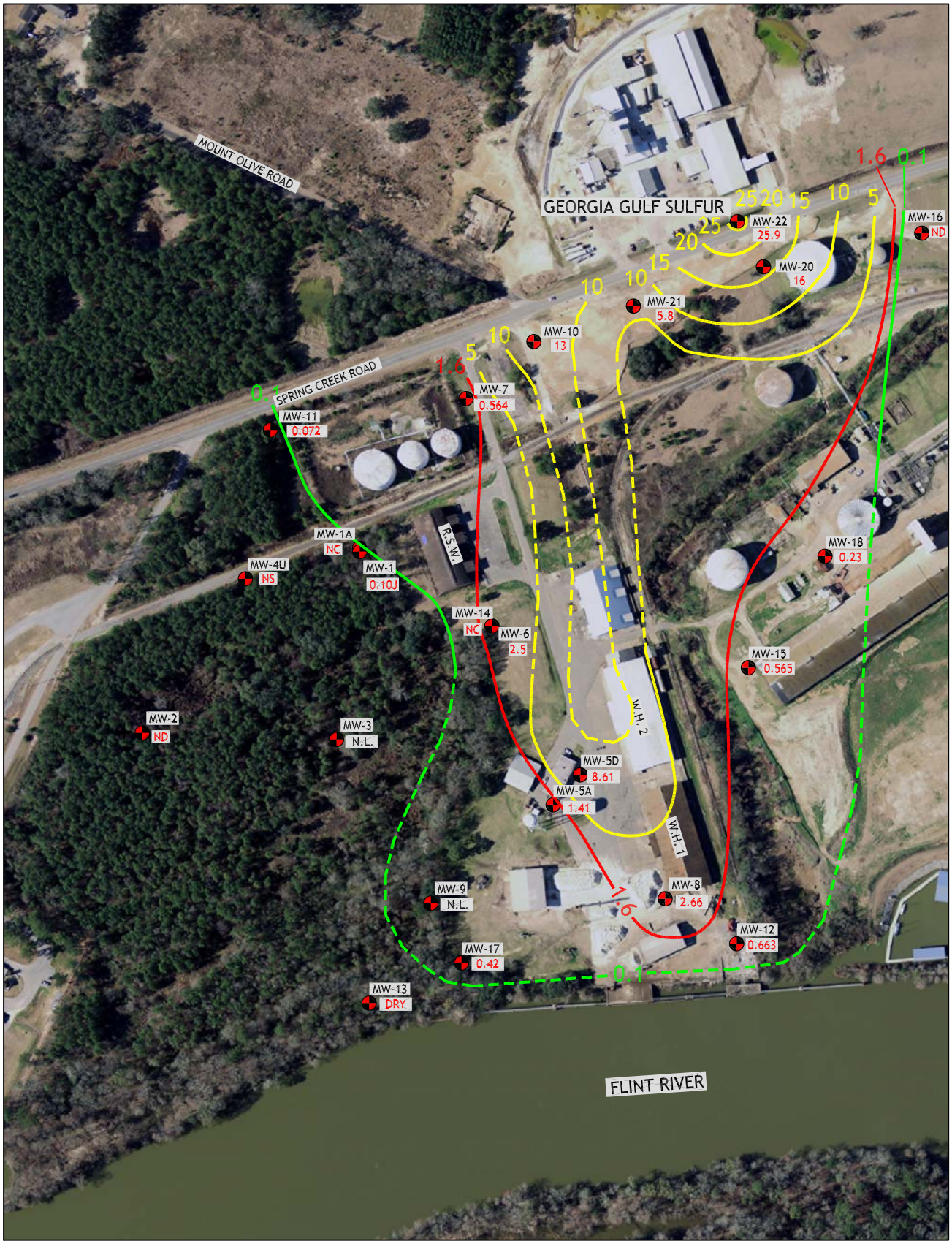
GRAPHICAL SCALE IN FEET
(APPROXIMATE)

FIGURE 2-6
BETA BHC ISOCONCENTRATION CONTOUR MAP (AUGUST 2009)

GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

Figure 1.dwg



LEGEND

MW-3	MONITORING WELL	NC	NOT CONSIDERED
N.L.	WELL NOT LOCATED	NI	WELL NOT YET INSTALLED
4.7	BHC CONCENTRATION	NS	NOT SAMPLED
ND	NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"	DRY	NOT SAMPLED DUE TO DRY WELL
J	INDICATES AN "ESTIMATED VALUE": =/> MDL & < RDL ACCORDING TO ANALYTICAL REPORT		

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED
RRS LIMIT 1.6 ug/L
DELINEATION STD. 0.1 ug/L

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.

FILE: 400001 GPA-Bainbridge\hazmat Issue\Report\General Figures.dwg

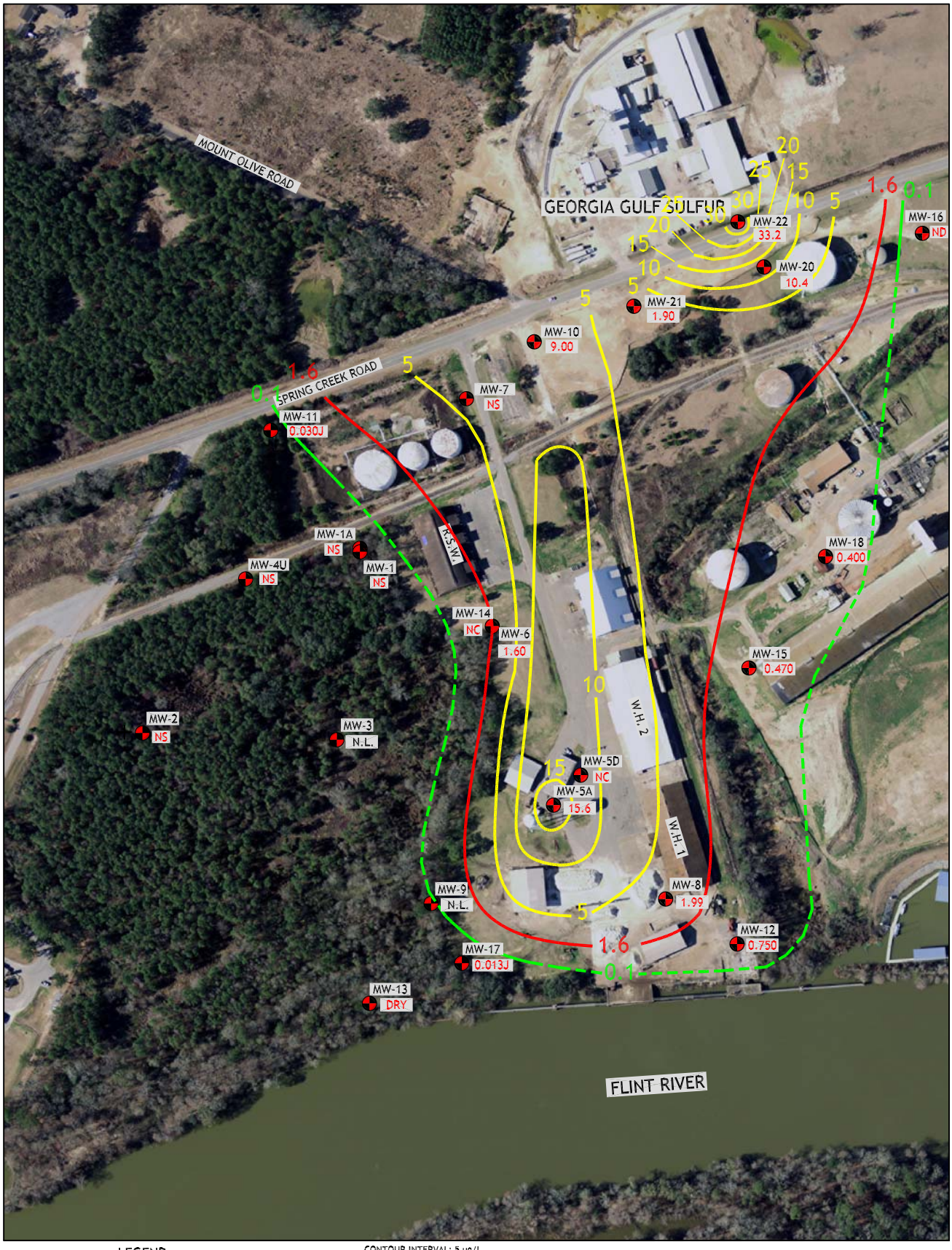
100 0 100 200 300
GRAPHICAL SCALE IN FEET
(APPROXIMATE)

FIGURE 2-7
BETA BHC ISOCONCENTRATION CONTOUR MAP (JULY 2011)

GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

DESIGNED BY: B.M. | DRAWN BY: A.E. | CHECKED BY: B.M. | APPROVED BY: B.M.
NO. | DATE | REVISIONS
SCALE: | DATE: 6/28/12 | FILE NO.: Figure 1.dwg | SHEET NO.: 1 OF 1



LEGEND

MW-3	MONITORING WELL	NC	NOT CONSIDERED
N.L.	WELL NOT LOCATED	NI	WELL NOT YET INSTALLED
4.7	BHC CONCENTRATION	NS	NOT SAMPLED
ND	NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"	DRY	NOT SAMPLED DUE TO DRY WELL
J	INDICATES AN "ESTIMATED VALUE": =/> MDL & < RDL ACCORDING TO ANALYTICAL REPORT		

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED
RRS LIMIT 1.6 ug/L
DELINEATION STD. 0.1 ug/L

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.

FILE: 400001 GPA-Bainbridge\hazmat issue\Report\General Figures.dwg

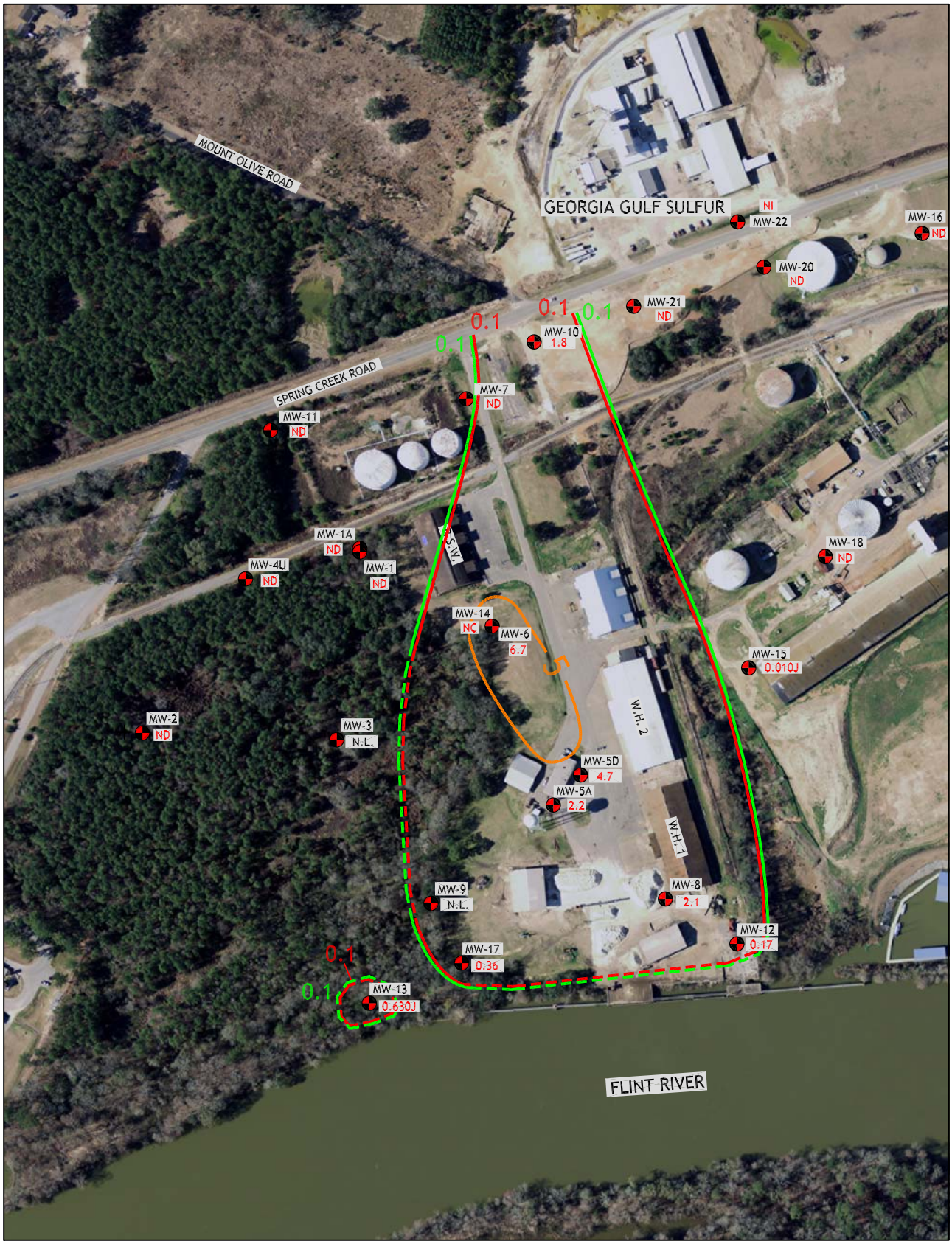
100 0 100 200 300
GRAPHICAL SCALE IN FEET
(APPROXIMATE)

FIGURE 2-8
BETA BHC ISOCONCENTRATION CONTOUR MAP (APRIL 2012)

GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

Figure 1.dwg



LEGEND

MW-3 MONITORING WELL
N.L. WELL NOT LOCATED
4.7 BHC CONCENTRATION
ND NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"
J INDICATES AN "ESTIMATED VALUE": =/> MDL & < RDL ACCORDING TO ANALYTICAL REPORT

NC NOT CONSIDERED
NI WELL NOT YET INSTALLED
NS NOT SAMPLED
DRY NOT SAMPLED DUE TO DRY WELL

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED
RRS LIMIT 0.1 ug/L
DELINEATION STD. 0.1 ug/L

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.

FILE: 400001 GPA-Bainbridge\hazmat Issue\Report\General Figures.dwg

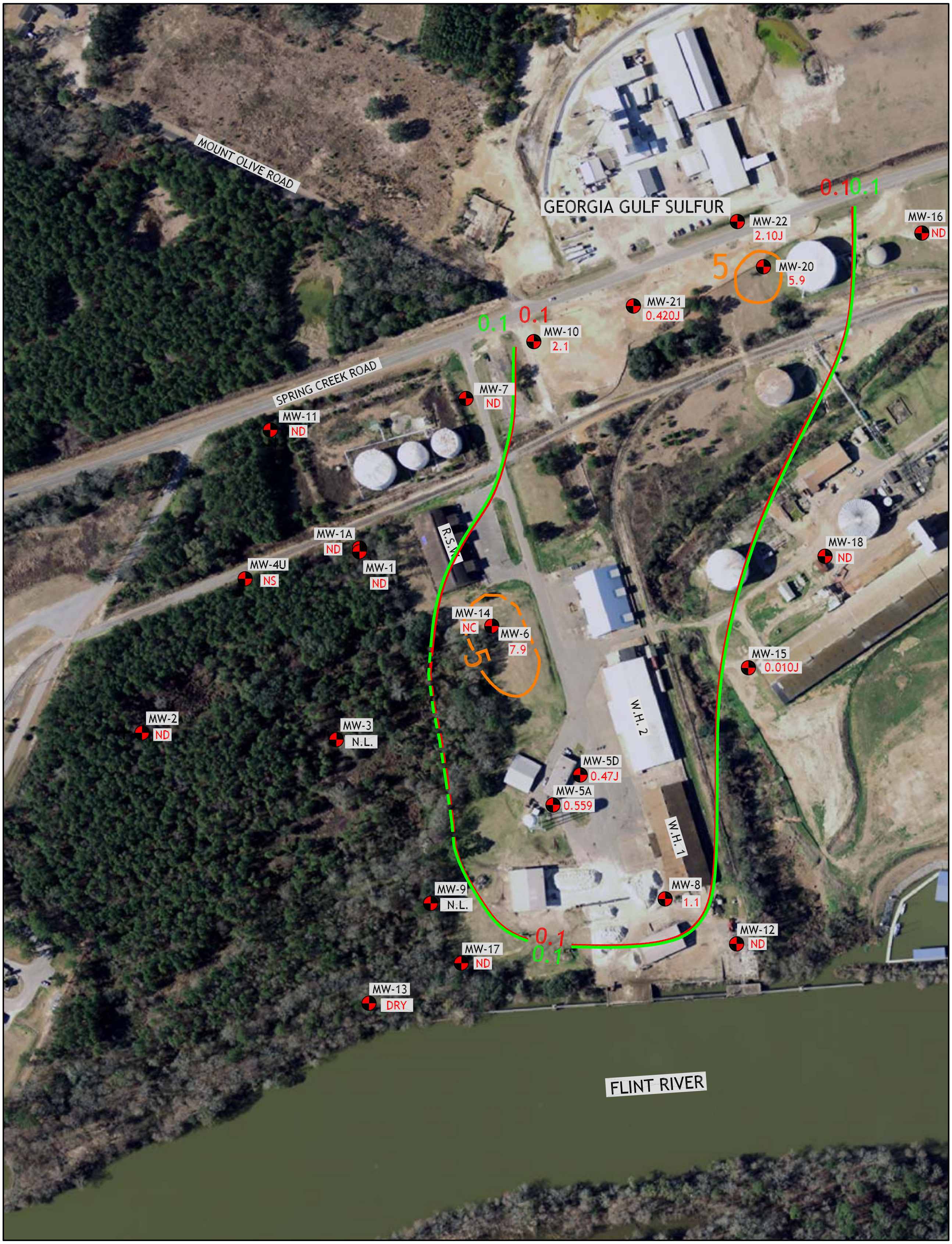
100 0 100 200 300
GRAPHICAL SCALE IN FEET
(APPROXIMATE)

FIGURE 2-9
DELTA BHC ISOCONCENTRATION CONTOUR MAP (AUGUST 2009)

GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

DATE 4/10/12
Figure 1.dwg



LEGEND

MW-3	MONITORING WELL
N.L.	WELL NOT LOCATED
4.7	BHC CONCENTRATION
ND	NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"
J	INDICATES AN "ESTIMATED VALUE": =/> MDL & < RDL ACCORDING TO ANALYTICAL REPORT
NC	NOT CONSIDERED
NI	WELL NOT YET INSTALLED
NS	NOT SAMPLED
DRY	NOT SAMPLED DUE TO DRY WELL

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED

RRS LIMIT 0.1 ug/L
DELINEATION STD. 0.1 ug/L

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

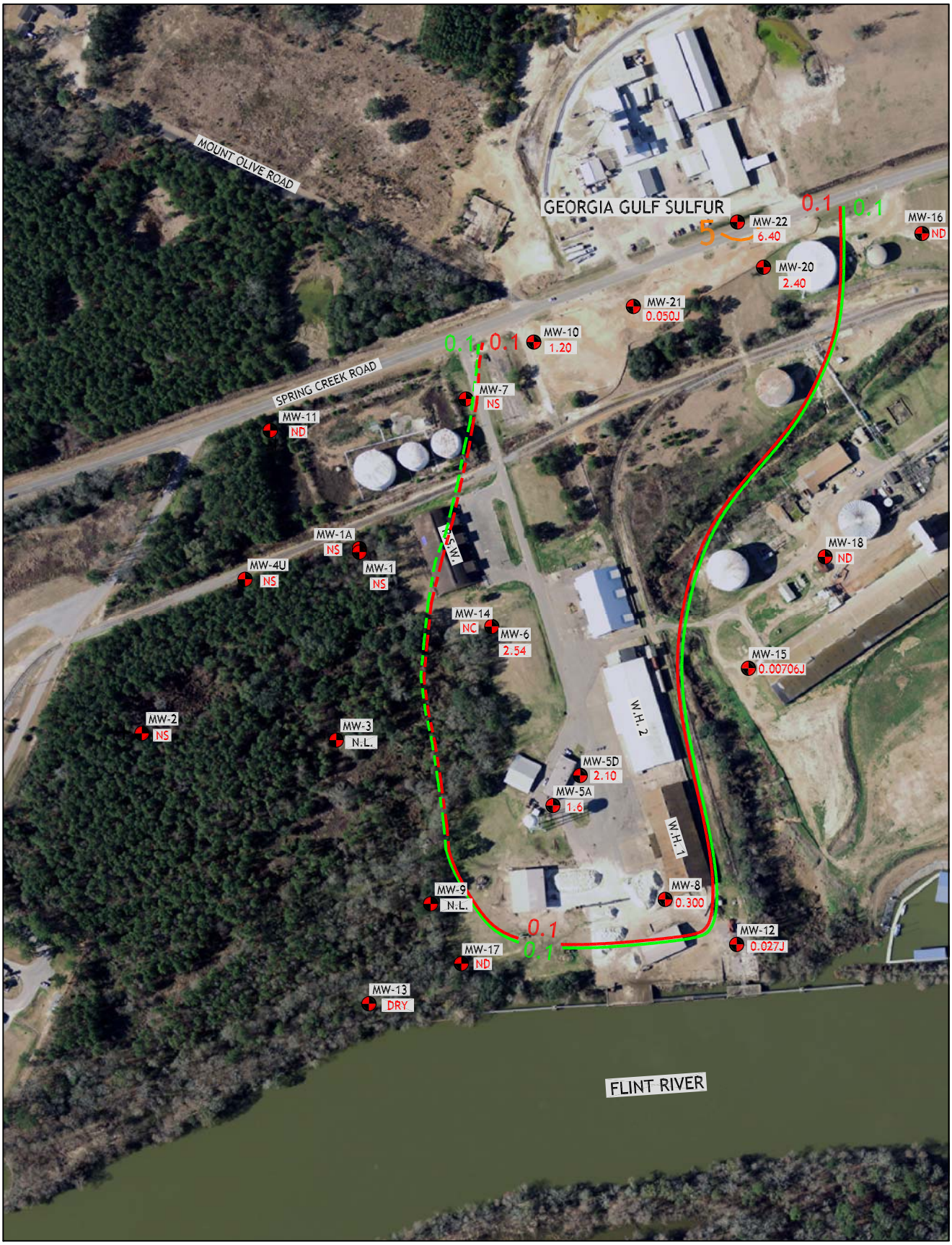
NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.

FILE: 400001 GPA-Bainbridge\hazmat issue\Report\General Figures.dwg

N

100 0 100 200 300
GRAPHICAL SCALE IN FEET
(APPROXIMATE)

DESIGNED BY: R.M.	DRAWN BY: A.S.	CHECKED BY: R.M.	FIGURE 2-10 DELTA BHC ISOCONCENTRATION CONTOUR MAP (JULY 2011)
APPROVED BY: R.M.		REVISIONS NO. DATE	
SEAL:			GEORGIA PORTS AUTHORITY BAINBRIDGE TERMINAL BAINBRIDGE, GEORGIA
			ENVIRONMENTAL INTERNATIONAL CORP. 161 KIMBALL BRIDGE ROAD ALPHARETTA GEORGIA 30009
SCALE: SEE BAR SCALE	DATE: 4/16/12	FILE NO.: Figure 1.dwg	SHEET NO.: 1 of 1



LEGEND

MW-3	MONITORING WELL
N.L.	WELL NOT LOCATED
4.7	BHC CONCENTRATION
ND	NON-DETECT: "U" VALUES IN ANALYTICAL REPORT WHERE "COMPOUND WAS ANALYZED BUT NOT DETECTED"
J	INDICATES AN "ESTIMATED VALUE": =/> MDL & < RDL ACCORDING TO ANALYTICAL REPORT
NC	NOT CONSIDERED
NI	WELL NOT YET INSTALLED
NS	NOT SAMPLED
DRY	NOT SAMPLED DUE TO DRY WELL

CONTOUR INTERVAL: 5 ug/L
CONTOUR LINES ARE DASHED WHERE DATA IS LIMITED
RRS LIMIT 0.1 ug/L
DELINEATION STD. 0.1 ug/L

SOURCES: BASEMAP MODIFIED FROM 2010 AERIAL PHOTO PROVIDED BY GEORGIA PORTS AUTHORITY
PROPERTY LINES PROVIDED BY GEORGIA PORTS AUTHORITY
WELL LOCATIONS (APPROXIMATE) FROM CH2MHILL DRAFT CAP AND WELL LOG MW-22

NOTES: MW-19 IS LOCATED EAST BEYOND EXTENT OF AERIAL PHOTO AND IS NOT SHOWN.

FILE: 400001 GPA-Bainbridge\hazmat issue\Report\General Figures.dwg

N

100 0 100 200 300

GRAPHICAL SCALE IN FEET
(APPROXIMATE)

EIC

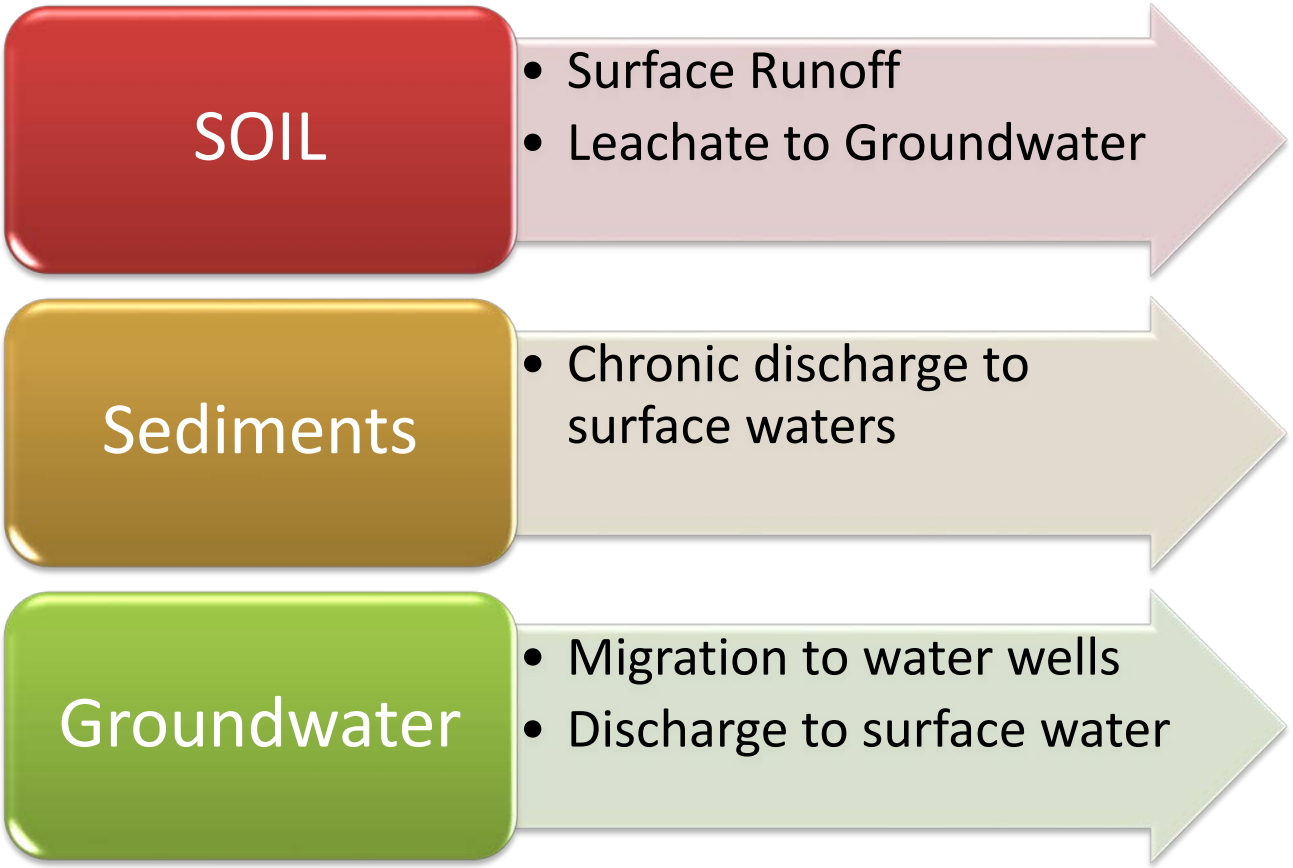
FIGURE 2-11
DELTA BHC ISOCONCENTRATION CONTOUR MAP (APRIL 2012)

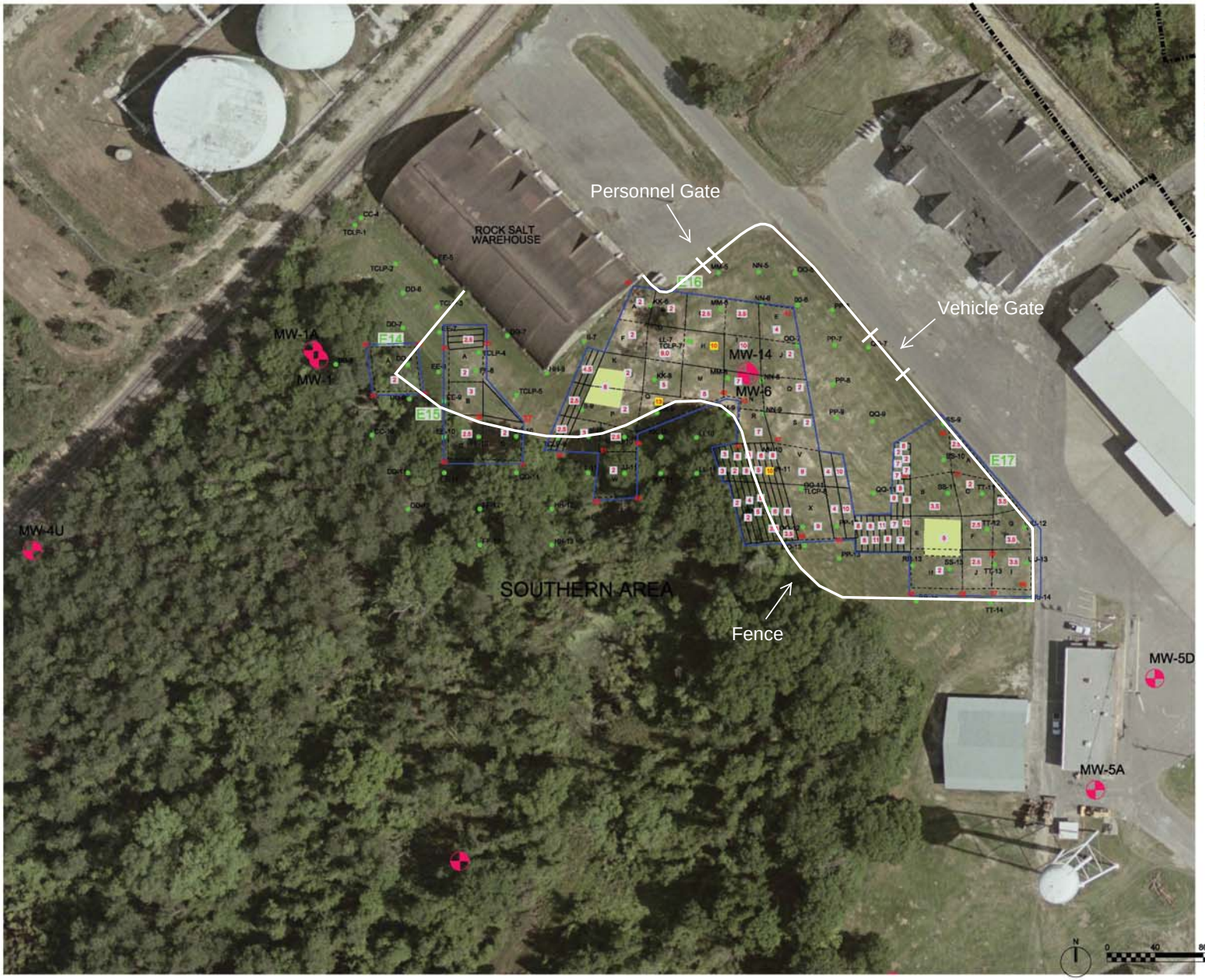
GEORGIA PORTS AUTHORITY
BAINBRIDGE TERMINAL
BAINBRIDGE, GEORGIA

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

Figure 1.dwg

Figure 2-12: Potential COC Migration Pathways





LEGEND:

- GROUNDWATER MONITORING WELL
- APPROXIMATE PROPERTY BOUNDARY
- DASHED LINES INDICATE EXTENT REQUIRES VARIFICATION
- AREAL EXTENT OF SOIL EXCEEDING RRS VALUES
- 10 UNCONFIRMED - CONTAMINANT LEVELS REMAIN ABOVE RRS VALUE AT BOTTOM FLOOR ELEVATION
- 10 CONFIRMED - NO CONTAMINANT LEVELS REMAIN ABOVE RRS VALUES AT BOTTOM FLOOR ELEVATION

FIGURE 4-1

Proposed Security Fencing Map (GPA, 2012)

811 Know what's below. Call before you dig.

EXCAVATION AND REMOVAL ALTERNATIVE

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
1	12/16		E GRIGGS				

DSGN D NELSON

CH2MHILL

SOIL REMOVAL AREAS SOUTHERN AND NORTHERN AREAS BAINBRIDGE TERMINAL

Georgia Ports Authority

SOIL REMOVAL AND DISPOSAL BAINBRIDGE TERMINAL BAINBRIDGE, GEORGIA

VERIFY SCALE

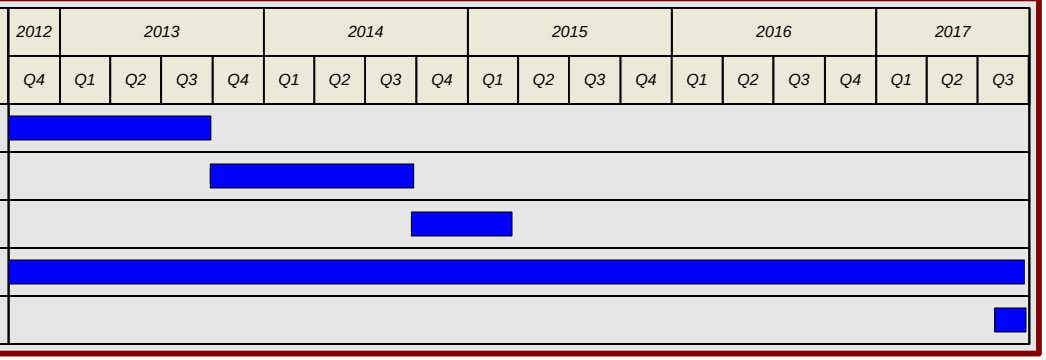
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	
CH2M PROJ No.	392278.01
GPA PROJ No.	0905-0359
DWG	BBT-C-2008
SHEET	

FILENAME: BBT-C-2008.dgn PLOT DATE: 9/23/2010 PLOT TIME: 9:21:41 AM

FIGURE 5-1: PROJECTED SCHEDULE

Step	Task Name	Start	Finish	Duration
1	MNA CALIBRATION	10/1/2012	9/27/2013	52w
2	MNA TREND ANALYSIS	9/27/2013	9/25/2014	52w
3	MNA CONFIRMATION	9/22/2014	3/20/2015	26w
4	MANAGEMENT OF CONTAMINATED SOILS	10/1/2012	9/22/2017	260w
5	SITE CLOSURE	8/1/2017	9/25/2017	8w



Note: MNA-based remediation will be in process throughout the 5 steps

BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

ATTACHMENTS

BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

ATTACHMENT A

VIRP Application Form and Checklist

Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION					
COMPANY NAME	Georgia Ports Authority				
CONTACT PERSON/TITLE	Christopher B. Novack, P.E.				
ADDRESS	PO Box 2406 Savannah GA 31402				
PHONE	912-624-3922	**FAX**	912-964-3918	**E-MAIL**	cnovack@gaports.com

GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP					
NAME	Raj Mahadevaiah			**GA PE/PG NUMBER**	23198
COMPANY	Environmental International Corporation				
ADDRESS	161 Kimball Bridge Road, Suite 100, Alpharetta, GA 30009				
PHONE	770-772-7100	**FAX**	770-772-0555	**E-MAIL**	rajmahadevaiah@eicusa.com

APPLICANT'S CERTIFICATION

In order to be considered a qualifying property for the VRP:

(1) The property must have a release of regulated substances into the environment;
(2) The property shall not be:
- (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
- (B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or
- (C) A facility required to have a permit under Code Section 12-8-66.

(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.
(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.

In order to be considered a participant under the VRP:
- (1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.
- (2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

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

I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.

APPLICANT'S SIGNATURE			
APPLICANT'S NAME/TITLE (PRINT)	CHRISTOPHER B. NOVACK, P.E. DIRECTOR OF ENGINEERING & FACILITIES MAINTENANCE	**DATE**	JULY 25, 2013

QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form)				
HAZARDOUS SITE INVENTORY INFORMATION (if applicable)				
HSI Number	10071	Date HSI Site listed	July 1 2009	
HSI Facility Name	Georgia Ports Authority	NAICS CODE	4491	
PROPERTY INFORMATION				
TAX PARCEL ID	Land Lot 373, Parcels: 20, 21A, and portions of Parcels 18 and 19 (See Attachments B-F)	PROPERTY SIZE (ACRES)	64.6	
PROPERTY ADDRESS	1321 Spring Creek Road			
CITY	Bainbridge	COUNTY	Decatur	
STATE	GA	ZIPCODE	39817	
LATITUDE (decimal format)	30.898889	LONGITUDE (decimal format)	84.6075	
PROPERTY OWNER INFORMATION				
PROPERTY OWNER(S)	Georgia Ports Authority	PHONE #	912-964-3922	
MAILING ADDRESS	Mr. Christopher Novack, PO Box 2406			
CITY	Savannah	STATE/ZIPCODE	Georgia, 31402	

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)
1.	**$5,000 APPLICATION FEE** IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)	**Attached**	
2.	**WARRANTY DEED(S)** FOR QUALIFYING PROPERTY.	**Attachment B**	
3.	**TAX PLAT** OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).	**Attachments C-F**	
4.	**ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES** OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	**Attached**	
5.	**A. Conceptual Site Model** **B. Preliminary Remediation Plan:** **C. Table of Delineation Standards:** **D. Surface and Sub-surface Setting:**	**Section 2; Tables 2-1 to 2-6; Fig. 2-1 to 2-12** **Section 4; Fig. 4-1** **Section 1.5; Tables 1-1 & 1-2** **Section 1; Fig. 1-1, 1-3 to 1-6**	

	E. Known or Suspected Sources of Contamination: **F. Potential Movement of Contamination within the Environment:** **G. Potential Human Health and Ecological Receptors:** **H. Complete and/or Incomplete Exposure Pathways:** **I. Project Schedule:**	**Sections 1 & 2; Figure 1-1** **Sections 2.3, 2.4, 2.6, 2.7; Figures 2-3 to 2-12** **Section 2.5** **Section 2** **Section 5**	
5.a.	Within the first 12 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern on property where access is available at the time of enrollment;	**Section 5.1**	
5.b.	Within the first 24 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern extending onto property for which access was not available at the time of enrollment;	**Section 5.2**	
5.c.	Within 30 months after enrollment, the participant must update the site CSM to include vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions; and	**Section 5.3**	
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	**Section 5.5**	
6.	**SIGNED AND SEALED PE/PG CERTIFICATION** AND SUPPORTING DOCUMENTATION: "I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances. Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." G. Ashvaraj Mahadewiah, No. 23196 — 7/27/12 Printed Name and GA PE/PG Number — Date Signature and Stamp GEORGIA REGISTERED No. 23196 PROFESSIONAL ENGINEER ASHVARAJ MAHADEWIAH		

BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

ATTACHMENT B

Site Warranty Deed & Legal Description

D-8
358

DEED OF CORRECTION

358

STATE OF GEORGIA
COUNTY OF FULTON

THIS INDENTURE, Made as of the 15th day of June, in the Year of Our Lord One Thousand Nine Hundred and Sixty-Four (1964), between the STATE OF GEORGIA, as First Party, and the GEORGIA PORTS AUTHORITY, as Second Party,

W I T N E S S E T H:

WHEREAS, the State of Georgia was duly authorized to convey certain real property in Decatur, Glynn and Richmond Counties to the Georgia Ports Authority (Georgia Laws, 1959, P. 145-151), and

WHEREAS, said State, First Party, did heretofore on the 18th day of March, 1959, convey said real property in the Counties of Decatur, Glynn and Richmond, in the State of Georgia, to the "State Ports Authority", and

WHEREAS, the name of the "State Ports Authority" was changed to "Georgia Ports Authority" in 1949 (Georgia Laws, 1949, P. 778-780), and

WHEREAS said conveyance by First Party should properly have been made to the "Georgia Ports Authority", and

WHEREAS, the description of the tract of 35.25 acres, in Decatur County, Georgia, contains an error in that one of the directional calls is omitted, and

WHEREAS, the Parties hereto desire to correct the errors made in said Instrument of March 18, 1959, and to properly and satisfactorily name the Grantee and correctly describe the property conveyed:

NOW THEREFORE, in consideration of the premises and in order to correct the prior Instrument above referred to and

RECEIVED
Oct 6 3 36 PM '64
BEN W. FORTSON
SECRETARY OF STATE

other valuable considerations flowing between the Parties, this Deed of Correction is made and delivered and the First Party does hereby grant, bargain, sell and convey, and by these does hereby grant, bargain, sell and convey unto the Second Party, its successors and assigns, the following described property, to wit:

> All that tract or parcel of land, situate, lying and being in Richmond County, Georgia, east of the corporate limits of the City of Augusta and north of the Sand Bar Ferry Road, containing seventy-eight (78) acres, more or less, and beginning at a point on the toe of the Levee nineteen hundred and twenty-five feet (1925) east of the East Boundary at a point identified on a map of the Department of Public Works, Augusta, Georgia, dated 26 August, 1958, by the letter 'D'; thence in a generally northerly direction a distance of two hundred and thirty-five feet (235), more or less, to the south waterline of the Savannah River to a point identified on said map by the letter 'A'; thence in a generally easterly direction along the south waterline of the Savannah River a distance of seventy-one hundred and fifty feet (7150), more or less, to a point identified on said map by the letter 'B'; thence in a generally southwesterly direction a distance of three hundred fifteen feet (315), more or less, to a point on the toe of the Levee identified on said map by the letter 'C'; thence in a generally westerly direction along the toe of the Levee a distance of sixty-six hundred and fifty feet (6650) to the point of beginning; bounded on the North by the Savannah River; on the East and South by other property of the City Council of Augusta and on the West by property of the Texas Company. All as shown upon said map on which said tract is designated "Tract A", which map is attached to the deed from the City Council of Augusta to the State of Georgia, dated September 3, 1958, and which said deed is on file in the office of the Secretary of State of Georgia, and by reference made a part hereof.
>
> Expressly reserved from this conveyance of the above described property is an easement in, over and upon the southernmost twelve feet (12) thereof, as a road for levee maintenance and other purposes, which easement is also shown on said map.

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ALSO, all that tract or parcel of land, situate, lying and being in Richmond County, Georgia, east of the corporate limits of the City of Augusta, containing two and two-tenths (2.2) acres, on the North side of the Sand Bar Ferry Road, on which it fronts seventy-nine and two-tenths (79.2) feet, and extends back in a northeasterly direction a distance of twelve hundred eighty-one and three-tenths (1281.3) feet on its western line and a distance of twelve hundred ninety-four and two-tenths (1294.2) feet on its eastern line to a rear width of seventy-nine and two-tenths (79.2) feet; bounded on the North by a strip of land reserved for a railroad right-of-way; on the East by lots of Jones and Nicholson, Hammock and Lundy; on the South by Sand Bar Ferry Road; and on the West by Pistol Range Road, designated upon the map first referred to as 'Tract B' and identified by the letters 'G', 'H', 'E', and 'F', which map by reference is made a part hereof.

The property next above described was conveyed to the State of Georgia by a deed dated September 3, 1958, from the City Council of Augusta, which said deed is on file in the office of the Secretary of State of Georgia, and by reference made a part hereof to better identify said property.

ALSO, all that certain tract, lot and parcel of land, situate, lying and being in the City of Brunswick, in Glynn County, Georgia, identified and described according to the map and plat entitled 'Port and Industrial Sites, Glynn County, Brunswick, Georgia', dated May 30, 1958, and thereon identified and described as 'Proposed State Docks', and more particularly described as follows, to wit:

Beginning at a point on the westerly line of Newcastle Street where said line of Newcastle Street would be intersected by the southerly line of Fifth Avenue if said line of Fifth Avenue were projected westerly; thence running westerly along the southerly line of Fifth Avenue if the same were projected westerly for a distance of one thousand two hundred twenty-seven and eighty-five one-hundredths (1,227.85) feet to the United States Government harbor line in East River; thence running northerly along the said U. S. Government harbor line for a distance of eleven hundred and four one-hundredths (1,100.04) feet; thence running easterly along a line parallel to and 1,100.04 feet northerly from the southerly line of

Fifth Avenue for a distance of five hundred and twenty-five (525) feet, more or less, to the westerly line of Bay Street (if said Bay Street were projected southerly and said Bay Street being ninety-two and five-tenths (92.5) feet in width at said point); thence running southerly for a distance of twenty and four one-hundredths (20.04) feet along said westerly line of Bay Street to the point where said line of Bay Street is intersected by the southerly line of Third Avenue if said Third Avenue were projected westerly; thence running easterly along the southerly line of Third Avenue, if said Third Avenue were projected westerly, for a distance of four hundred ninety-seven and five tenths (497.5) feet to the westerly line of Grant Street, if said Grant Street were projected southerly; thence running southerly along said southerly projection of the westerly line of Grant Street for a distance of four hundred eighty (480) feet; thence at right angles to said last described line running westerly for a distance of two hundred and five (205) feet; thence at right angles to said last described line running southerly for a distance of one hundred five (105) feet; thence at right angles to said last described line running westerly for a distance of two hundred (200) feet; thence at right angles to said last described line running southerly for a distance of one hundred twenty-five (125) feet; thence at right angles to said last described line running easterly for a distance of five hundred forty (540) feet to the westerly line of Newcastle Street; thence running southerly and southeasterly along said westerly line of Newcastle Street for a distance of four hundred twenty and two-tenths (420.2) feet to the point or place of beginning.

There is excepted from this conveyance, the easement or rights-of-way of the Atlantic Coast Line and Southern Railroads as the same is shown to run through the above described and hereby conveyed tract of land on the aforesaid plat.

The property described next above was conveyed to the State of Georgia by a deed dated July 7, 1958, from the City of Brunswick, which said deed is on file in the office of the Secretary of State of Georgia, and by reference made a part hereof to better identify said property.

ALSO, that certain tract of land containing 56 acres, more or less, located in Lots of Land No. 372 and 373 in the 15th District of Decatur County,

Georgia, being a portion of Decatur County Farm Land located on the North of Flint River and South of the Bainbridge-Spring Creek paved highway (Georgia State Highway No. 253), East of the site now known as American Bitumuls & Asphalt Company and West of other land of Decatur County, Georgia and which tract is now known as the Georgia State Ports Authority, and is more particularly described as follows:

'Commencing at the Southwest corner of Land Lot No. 373, 15th District, Decatur County, Georgia (marked by a U. S. Government monument); thence N 01 degree 41' E, 457.0 feet to a U. S. Government monument; thence N 63 degree 06' E, 661.4 feet to a U. S. Government concrete monument; thence N 52 degree 03' E 648.9 feet to a U. S. Government concrete monument and the point of beginning; thence N 01 degree 41' E, 1,637.9 feet to a point on the South right-of-way of Georgia State Highway No. 253; thence N 45 degree 53' E along the South right-of-way of Georgia State Highway No. 253, 992.2 feet to a point of curvature; thence along the South right-of-way of Georgia State Highway No. 253 along a curve to a right in a general northeasterly direction with a radius of 5,690 feet for a distance of 911.9 feet to a point of tangency (chord N 50 degree 28' E. 911.0 feet); thence continue along the South right-of-way of Georgia State Highway No. 253, N 55 degree 04' E, 173.6 feet; thence S 08 degree 14' W. 98.0 feet; thence S 40 degree 54' W. 597.3 feet; thence S 26 degree 43' W, 949.5 feet; thence S 03 degree 56' W, 185.0 feet; thence S 40 degree 51' E, 1.054.9 feet to a point on the north shore line of Flint River; thence downstream along the North shore line of Flint River in a southwesterly direction to a point which is S 48 degree 49' W, 1,953.2 feet; thence N 01 degree 41' E. 658.3 feet to the point of beginning.'

The property described next above was conveyed to the State of Georgia by a deed dated October 2, 1956, from Decatur County, Georgia through the Chairman of the Board of Commissioners of Roads and Revenues, which deed is on file in the office of the Secretary of State of Georgia and by reference made a part hereof in aid of the description of said property.

ALSO, all that certain tract, lot and parcel of land situate, lying and being in Land Lots 372 and 373 of the 15th District of Decatur County, Georgia, containing 35.25 acres, and more particularly described as follows:

Commencing at the Southeast corner of Land Lot No. 372, 15th District, Decatur County, Georgia (Marked by a U. S. Government monument); thence N 0 degree 55' E, 650.0 feet; thence N 88 degree 50' W, 60.0 feet to a concrete monument and the point of beginning; thence S 51 degree 42' W along North boundary of Lands of General Gas Corp., 858.0 feet; thence S 31 degree 28' W along North boundary of lands of General Gas Corp., 823.4 feet; thence S 50 degree 19' E along West Boundary of lands of General Gas Corp., 500.0 feet; thence S 16 degree 35' E, 232.0 feet to a point on the Northern shore of Jim Woodruff Reservoir; thence along the Northern shore of Jim Woodruff Reservoir in a Southwesterly direction to a point which is S 66 degree 21' W, 240.0 feet; thence along the East boundary of lands formerly deeded to Georgia Ports Authority as follows: N 40 degrees 51' W, 1054.9 feet; N 03 degrees 56' E, 185.0 feet; N 26 degrees 43' E, 949.5 feet; N 40 degrees 54' E, 597.3 feet; N 08 degrees 14' E, 98.0 feet to a point on South right-of-way of Georgia State Highway No. 253; thence North 55 degrees 04' E along South right-of-way of Georgia State Highway No. 253, 630.9 feet; thence S 0 degree 55' W, 998.1 feet; thence along a curve to the left in a Northeasterly direction with a radius of 427.50 feet to a point which is N 60 degrees 49' E, 28.0 feet to a point of tangency; thence N 58 degrees 57' E 225.5 feet to the point of beginning. LESS AND EXCEPT 2.88 acres, more or less, contained in right-of-way for railroad spur track to State Docks as previously deeded S. A. L. Railway.

Specifically reserved from the above described tract of land is a strip of land for a 100 foot wide perpetual Railroad right-of-way easement from the proposed S. A.L. Railway spur track, running in an Easterly and Westerly direction through said described tract, to other adjoining lands of Decatur County which are located on the North side of Georgia State Highway No. 253. Said strip having been reserved for the use of Decatur County, Georgia in its conveyance to the State of Georgia dated February 4, 1958, which said deed is on file in the Office of the Secretary of State of Georgia, and by reference made a part hereof for a more complete description of said property. The above 35.25 acre tract of land being more fully shown by plat of same made by R. H. Alcorn, C. E., on December 28, 1957, and recorded in Plat Book 4, Page 6, in the Clerk's office of Superior Court of Decatur County, Georgia.

This Deed of Correction is executed and delivered by the Governor of Georgia, acting for and on behalf of the State of Georgia under and as duly authorized by an Act of the General Assembly of Georgia approved March 9, 1945, known as the State Ports Authority Act, appearing on Pages 464-480, inclusive, of the Acts of the General Assembly of 1945, as amended by an Act approved March 10, 1959 (Georgia Laws 1959, Pages 145-151).

TO HAVE AND TO HOLD the said tract or parcel of land with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in any wise appertaining, to the only proper use, benefit and behoof of the said party of the second part, its successors and assigns, forever, IN FEE SIMPLE.

IN WITNESS WHEREOF, The State of Georgia has caused these presents to be signed by the Governor, with the official Seal of The State affixed, and attested by the Secretary of State, this the day and year first above written.

STATE OF GEORGIA

By: Carl E. Sanders (L.S.)
Carl E. Sanders, Governor

Attest: Ben W. Fortson, Jr. (L.S.)
Ben W. Fortson, Jr.
Secretary of State

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF: (As to the signatures of Carl E. Sanders, Governor, and Ben W. Fortson, Jr., Secretary of State)

Henry G. Lee

Ann L. Adamson
Notary Public

Notary Public, Georgia State at Large
My Commission Expires Nov. 9, 1964

Georgia, Decatur County, Filed Oct 15, 1964 at 11:20 A.M. Recorded Oct 16, 1964
Alma M. Griffin, Dep. Clerk, Superior Court

THIS INDENTURE, made this 23rd day of July, 1986, between

001936 CHEVRON U.S.A. INC., a Pennsylvania corporation (successor to American Bitumuls & Asphalt Company, a Delaware corporation, by mergers and name changes), hereinafter called "Grantor", and Georgia Ports Authority , whose mailing address is 132 State Judicial Building, Atlanta, Georgia 30334, hereinafter called "Grantee".

W I T N E S S E T H: That Grantor, for and in consideration of the sum of Ten Dollars ($10.00) and other good and valuable consideration, in hand paid at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed and by these presents does hereby grant, bargain, sell and convey unto Grantee, its successors and assigns, a tract or parcel of land, with improvements, situate, lying and being in Decatur County, State of Georgia, and being more particularly described in Schedule A attached hereto and by reference made a part hereof.

TO HAVE AND TO HOLD the said bargained and conveyed premises together with all and singular the rights, members and appurtenances thereto in anywise appertaining or belonging to the only proper use, benefit and behoof of Grantee, its successors and assigns, in fee simple forever.

And Grantor will, and its successors shall, the aforegranted and conveyed premises unto Grantee, its successors and assigns, forever warrant and defend the right and title to said premises by virtue of these preents against the claim or claims of all persons whomsoever, except as to all easements and restrictions of record and zoning and building regulations applicable to said property and any state of facts that might be shown by an accurate survey and any roads or ways over and across said premises.

All taxes for the current year have been prorated as of date of delivery of this deed.

IN WITNESS WHEREOF, the said CHEVRON U.S.A. INC., a Pennsylvania corporation, Grantor herein, has caused these presents to be executed, and its corporate seal to be affixed hereto, by its Assistant Secretary, for and on its behalf, the day and year first above written.

CHEVRON U.S.A. INC.

RECORDED
BOOK I-14 PAGE 322-381

By: D T Sherman
D. T. SHERMAN
Assistant Secretary

Signed, sealed and delivered
in the presence of:

Marianne M. Harlan

Phyllis Glenn
Notary Public
Notary Public, Georgia, State at Large
My Commission Expires Nov. 17, 1986

Date of Notarial Execution: July 23, 1956

DECATUR COUNTY, GEORGIA
REAL ESTATE TRANSFER TAX
PAID $ 110.00
DATE July 31, 1986
Dp. Clerk of Superior Court

DECATUR COUNTY, GEORGIA
FILED IN OFFICE
1986 JUL 31 PM 12:11
CLERK OF SUPERIOR COURT

This instrument prepared by:
D. T. SHERMAN
Attorney at Law
P. O. Box 1706
Atlanta, Georgia 30301

000377

378

SCHEDULE A

CHEVRON U.S.A. INC.

TO

GEORGIA PORTS AUTHORITY

All that certain tract or parcel of land lying, situate and being in Land Lot No. 373 in the 15th Land District of Decatur County, Georgia, more particularly described as follows:

COMMENCE at the Southwest corner of Land Lot No. 373 and run thence North 01 deg. 52' 51" East along the West land lot line of Land Lot No. 373 a distance of 457.84 feet to a concrete monument; run thence North 63 deg. 07' East a distance of 661.3 feet to a concrete monument; run thence North 01 deg. 41' East a distance of 468.29 feet to a concrete marker; run thence South 88 deg. 32' 10" East a distance of 112.23 feet to an iron pin and the point of beginning; run thence North 17 deg. 01' 02" West a distance of 164.91 feet to an iron pin; run thence North 01 deg. 45' 13" East a distance of 352.92 feet to an iron pin; run thence North 04 deg. 30' 11" East a distance of 100.51 feet to an iron pin; run thence North 12 deg. 24' 07" East a distance of 291.53 feet to an iron pin; run thence North 07 deg. 57' 50" East a distance of 336.50 feet to a concrete marker located on the Southeast right-of-way line of State Route No. 253; run thence North 45 deg. 53' East a distance of 489.44 feet to a concrete marker located on the Southeast right-of-way line of State Route No. 253; run thence South 01 deg. 41' West a distance of 1,638.07 feet to a concrete marker; run thence South 01 deg. 41' West a distance of 355.81 feet to a concrete marker; run thence South 60 deg. 18' 16" West a distance of 106.84 feet to an iron pin; run thence North 01 deg. 34' 54" East a distance of 468.46 feet, more or less, to an iron pin; run thence North 88 deg. 32' 10" West a distance of 292.71 feet to an iron pin and the point of beginning. All in accordance with a plat of survey for Chevron U.S.A. Inc., prepared by Wallace Long Hambrick, GRLS No. 1375, dated March 24, 1986, and recorded in Plat Cabinet 2, Slide 70, Land Records of Decatur County, Georgia.

Being a portion of the same property conveyed from Decatur County, Georgia by and through W. W. Long, Chairman of the Board of Commissioners of Roads and Revenues, to American Bitumuls & Asphalt Company, a corporation of Delaware, by deed dated October 2, 1956 and recorded in the Office of the Clerk of the Superior Court of Decatur County, Georgia, on October 5, 1956 in Book T-6, Page 116.

LESS AND EXCEPT that portion of the above-described property as was conveyed to the United States of America by warranty deed dated March 29, 1963, and recorded in Deed Book X-7, Pages 229-231, Land Records of Decatur County, Georgia.

TOGETHER with the rights reserved unto American Bitumuls & Asphalt Company in the above described deed dated March 29, 1963.

SUBJECT TO:

(1) Riparian rights incident to the premises.

(2) Easement in favor of Georgia Power Company running over and across the western portion of caption property from Georgia State Route 253 into property adjoining caption property on the southwest as reported on Surveyor's Certificate Report by Wallace Hambrick, Surveyor, dated August 25, 1982 and revised March 24, 1986.

(3) Easement line in favor of Corps of Engineers of United States of America running across the southern portion of caption property as shown on Plat of Survey by Wallace Hambrick, Surveyor, dated March 24, 1986.

000378

BAINBRIDGE TERMINAL
LEGAL DESCRIPTION

All that tract or parcel of real property situate, lying and being in Land Lot 373 in the 15th Land District, Decatur County, Georgia and being more particularly described as follows:

Commencing at a point, said point being the Southwest Corner of Land Lot 373 and run thence North 20 degrees 48 minutes 06.0 seconds East, a distance of 1985.80 feet to a point, said point being the POINT OF BEGINNING.

Continuing thence North 12 degrees 24 minutes 07.0 seconds East a distance of 169.42 feet to a point; thence North 07 degrees 57 minutes 50.0 seconds East a distance of 336.50 feet to a point, said point being on the easterly right-of-way line of Georgia State Route 253 (also known as Spring Creek Road); thence along the easterly right-of-way line of Georgia State Route 253 North 45 degrees 53 minutes 00.0 seconds East a distance of 489.44 feet to a point; thence along the easterly right-of-way line of State Route 253 North 45 degrees 53 minutes 00.0 seconds East a distance of 510.16 feet to a point; thence leaving the right of way line of Georgia State Route 253 South 44 degrees 06 minutes 12.0 seconds East a distance of 211.88 feet to a point; thence North 46 degrees 05 minutes 05.0 seconds East a distance of 181.09 feet to a point; thence South 43 degrees 54 minutes 55.0 seconds East a distance of 50.00 feet to a point; thence South 46 degrees 00 minutes 21.0 seconds West a distance of 28.90 feet to a point; thence along a curve to the left, said curve having a radius of 293.31 feet, a central angle of 86 degrees 56 minutes 43.7 seconds and an arc distance of 445.09 feet to a point (chord bearing is South 02 degrees 32 minutes 02.0 seconds West and chord distance is 403.60 feet); thence South 40 degrees 27 minutes 10.4 seconds East a distance of 169.37 feet to a point; thence South 40 degrees 55 minutes 28.0 seconds East a distance of 88.45 feet to a point; thence North 61 degrees 13 minutes 43.0 seconds East a distance of 111.25 feet to a point; thence South 49 degrees 41 minutes 10.7 seconds East a distance of 282.81 feet to a point; thence South 50 degrees 14 minutes 54.0 seconds East a distance of 500.00 feet to a point; thence North 31 degrees 28 minutes 00.0 seconds East a distance of 100.00 feet to a point; thence South 16 degrees 35 minutes 00.0 seconds East a distance of 232.00 feet to a point, said point being on the north bank of the Flint River; thence following the north bank of the Flint River in a southwesterly direction to a point, said point being South 66 degrees 21 minutes 00 seconds West a distance of 240.00 feet from the previous point; thence along the north bank of the Flint River in a southwesterly direction to a point, said point being South 48 degrees 49 minutes 00.0 seconds West a distance of 1953.20 feet from the previous point; thence leaving the north bank of the Flint River North 01 degrees 23 minutes 58.6 seconds East a distance of 301.95 feet to a point; thence South 60 degrees 18 minutes 16.0 seconds West a distance of 106.84 feet to a point; thence North 01 degrees 34 minutes 54.0 seconds East a distance of 468.46 feet to a point; thence North 88 degrees 22 minutes10.0 seconds West a distance of 292.91 feet to a

point; thence North 17 degrees 01 minutes 02 seconds West a distance of 164.91 feet to a point; thence North 01 degrees 45 minutes 13.0 seconds East a distance of 352.92 feet to a point; thence North 04 degrees 30 minutes 11.0 seconds East a distance of 100.51 feet to a point; thence North 12 degrees 24 minutes 07.0 seconds East a distance of 122.04 feet to a point, said point being the POINT OF BEGINNING.

Said herein above described tract or parcel of real property being bounded on the north and west by State Route 253; on the east by lands, now or formally, of AgriumU.S. Inc.; on the south by the Flint River; and on the west by lands, now or formally, of Ergon Terminaling, Inc. Said tract or parcel of real property consisting of and being approximately 64.6 Acres, more or less, and being known as the Georgia Ports Authority's Bainbridge Terminal.

The aforementioned legal description is a composite made from various deeds and plats in the possession of the Georgia Ports Authority and on record with the Office of Clerk of Superior Court, Decatur County, State of Georgia, and is subject to all matters which an actual field survey may disclose. The parcel is also subject to various easements and rights of ways not indicated in this legal description.

Revised 6/28/12
Source: Georgia Ports Authority

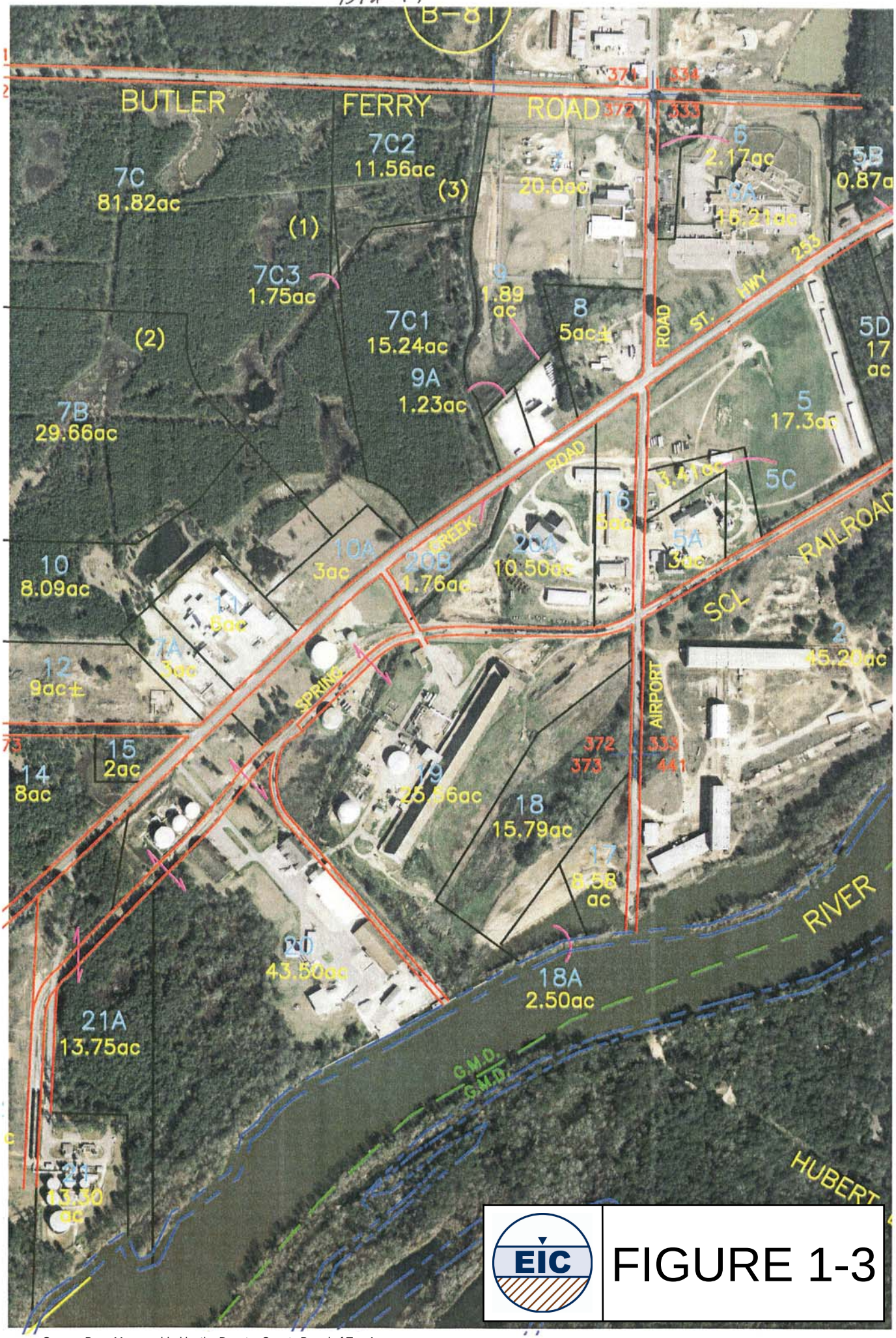
BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

ATTACHMENT C

County Tax Plat Map and Parcel Owner Index

B42-19



EIC

FIGURE 1-3

Source: Base Map provided by the Decatur County Board of Tax Assessors

BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

ATTACHMENT D

Current Site Property and Surrounding Properties Owner Database

ATTACHMENT D: Current Site Property and Surrounding Properties Owner Database

Parcel ID	Property Owner	Property Owner Address	Parcel Description*	Lot Size	
7A	VALBAY INC	PO BOX 1165, VALDOSTA, GA 31603	A9 847 LL372 15TH LD	3.00	Acres
10A	GEORGIA GULF SULPHUR CO	PO BOX 1165, VALDOSTA, GA 31603	T15 509 LL 372 LD 15	3.00	Acres
11	GEORGIA GULF SULPHUR CO	PO BOX 1165, VALDOSTA, GA 31603	T15 509 LL 372 LD 15 RFC-2	6.00	Acres
12	JACKSON GLAPHREY & ETAL	PO BOX 697, BRINSON, GA 39825	315 643 LL372 LD15 RFC-4	9.00	Acres
14	BARBER THURMAN	254 BARBER ROAD, BRINSON, GA 398525	E14 603 LL373 LD15	8.00	Acres
15	SWEETRIVER LAND LLC	PO BOX 862 BAINBRIDGE, GA 39818	228 163 LL 373 LD 15	2.00	Acres
18	AGRIUM U S INC	4582 S ULSTER ST SUITE 700, DENVER, CO 80237	315 515 LL372-373 15TH LD RFC-60	15.79	Acres
18A	THE CITY OF BAINBRIDGE	PO BOX 158, BAINBRIDGE, GA 39818	109 45 LL373 LD15	2.50	Acres
19	AGRIUM U S INC	4582 S ULSTER ST SUITE 700, DENVER, CO 80237	315 515 LL372-373 LD 15 RFC-60	25.56	Acres
20	GEORGIA PORTS AUTHORITY	132 STATE JUDICIAL BUILDING, ATLANTA, GA 30334	GA PORTS AUTH LL372-3 D15 RFC-1	43.50	Acres
21	ERGON TERMINALING INC	PO BOX 1639, JACKSON, MS 39215	E22 387 LL 373 LD 15 RFC-1	13.30	Acres
21A	GEORGIA PORTS AUTHORITY	132 STATE JUDICIAL BUILDING, ATLANTA, GA 30334	I14 377 LL373 LD15	13.75	Acres

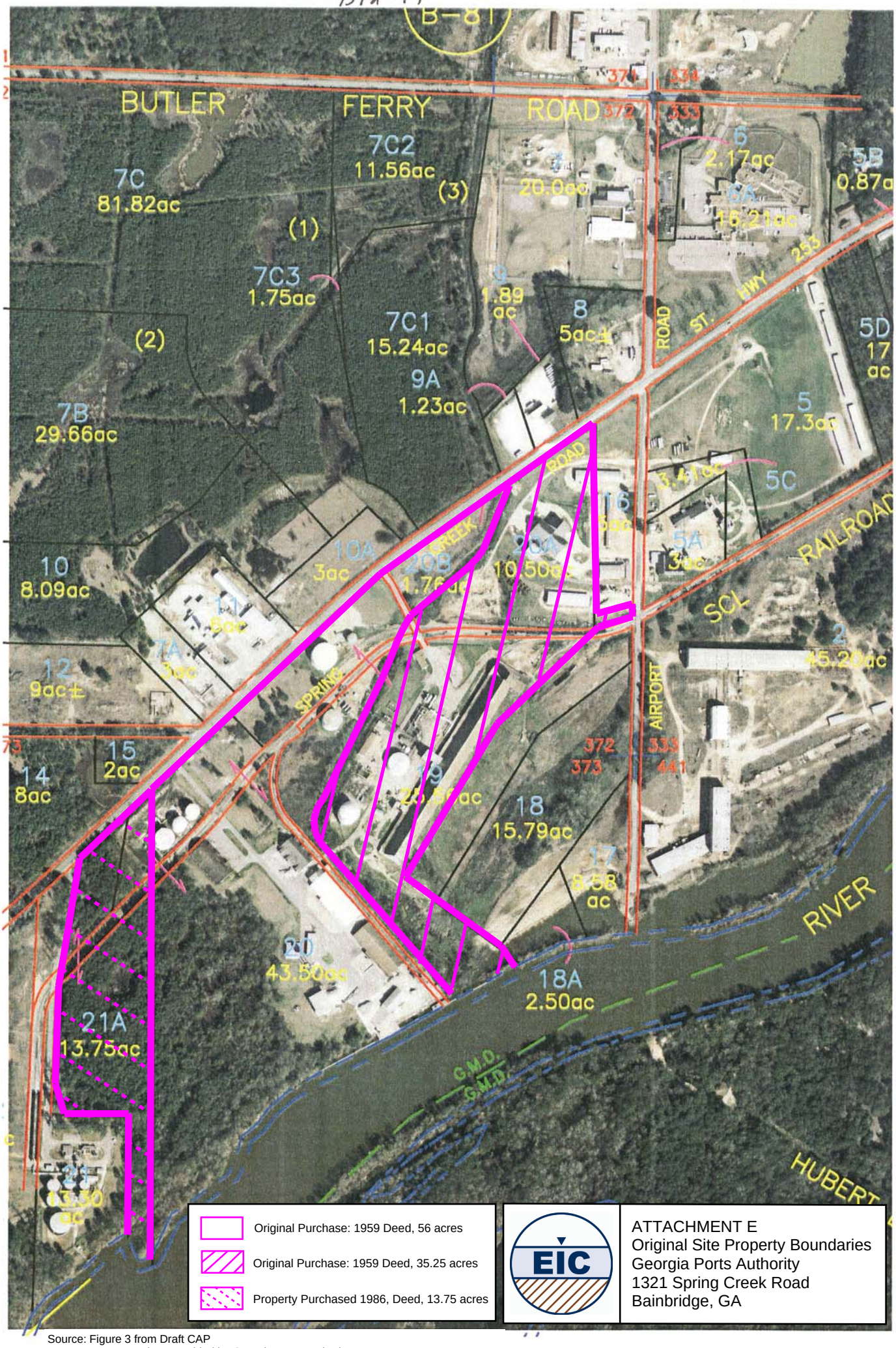
Sources: Decatur County Board of Tax Assessors
Notes: *Property Description may include Deed Book Page, Land Lot, Land District, and Address of BLDG/House

BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

ATTACHMENT E

Original Site Property Boundaries



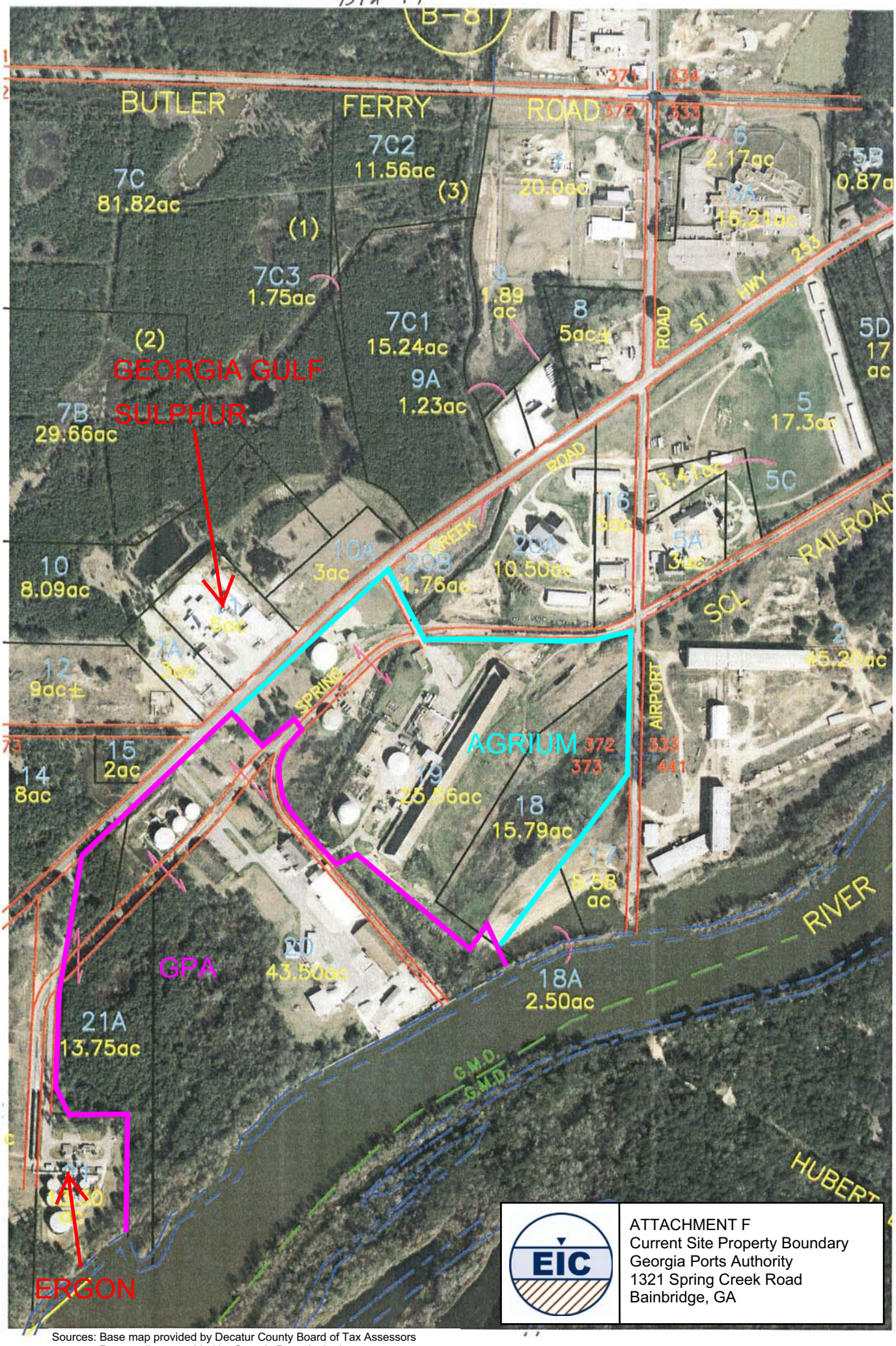
Source: Figure 3 from Draft CAP
Property Lines provided by Georgia Ports Authority

BHC REMEDIATION, BAINBRIDGE TERMINAL, BAINBRIDGE, GEORGIA

VIRP APPLICATION

ATTACHMENT F

Current Site Property Boundary



EIC

ATTACHMENT F
Current Site Property Boundary
Georgia Ports Authority
1321 Spring Creek Road
Bainbridge, GA

Sources: Base map provided by Decatur County Board of Tax Assessors
Property lines provided by Georgia Ports Authority