Level 2 Contamination Impact Assessment Report

SR 400 (I-4) Project Development and Environment (PD&E) Study

Segment 3

Ponds 300, 300A, 300B, 307, and 308

Seminole County, Florida

Financial Project No. 432100-1-22-01

GEC Project No. 3492E

Prepared for:

HNTB

610 Crescent Executive Court, Suite 400

Lake Mary, Florida 32746

and

Florida Department of Transportation

Prepared by:

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919 Lake Baldwin Lane

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February 2015

DRAFT

February 20, 2015

HNTB
610 Crescent Executive Court, Suite 400
Lake Mary, Florida 32746

Attention: Mr. Luis Diaz, P.E.

Subject: Level 2 Contamination Impact Assessment Report
SR 400 (I-4) Project Development and Environment (PD&E) Study
Segment 3
Ponds 300, 300A, 300B, 307, and 308
Seminole County, Florida
Financial Project No. 432100-1-22-01
GEC Project No. 3492E

Dear Mr. Diaz:

Geotechnical and Environmental Consultants, Inc. (GEC) is pleased to submit this Level 2 Contamination Impact Assessment Report (Level 2 Assessment) for the above-referenced project. The Level 2 Assessment presented herein was conducted based in part on the findings and opinions presented in the Contamination Screening Evaluation Report Update, dated May 2014, prepared by Stantec.

GEC performed Level 2 Assessment activities at two sites within the project corridor. This report documents conditions at the time the investigations were performed (December 2014 and January 2015) and at the locations and depths that soil and groundwater samples were obtained. The results presented herein may not reflect conditions that may exist at other times or at other locations on the sites.

We appreciate the opportunity to be of service to you on this project and trust this information is sufficient for your needs. Should you have any questions concerning this report, or if we may be of further assistance, please contact us.

Sincerely,

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.

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cc: Mr. Randy Stafford - FDOT District 5 DCIC

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1.0 INTRODUCTION

Geotechnical and Environmental Consultants, Inc. (GEC) has been retained by HNTB, on behalf of the Florida Department of Transportation (FDOT), to provide a Level 2 Contamination Impact Assessment (Level 2 Assessment) for the SR 400 (I-4) Project Development and Environment (PD&E) Study, Segment 3. The Contamination Screening Evaluation Report (CSER), dated May 2014, was prepared by Stantec for this project. The CSER identified proposed stormwater ponds 300, 300A, and 300B as being within an area of historic citrus groves and Ethylene DiBromide groundwater impacts; the three proposed stormwater ponds were assigned a Medium risk rating. Ponds 307 and 308 were identified as being adjacent to a contaminated facility; the two proposed stormwater ponds were assigned a High risk rating. GEC and FDOT determined that proposed pond stormwater pond sites 300, 300A, 300B, 307, and 308 warranted further investigation at this time.

…three proposed stormwater ponds were assigned a Medium risk rating…two proposed stormwater ponds were assigned a High risk rating.

This Level 2 Assessment was conducted in general accordance with the Chapter 22-2.7 of the FDOT Project Development & Environment (PD&E) Manual and the Sampling and Analysis Plan, dated June 4, 2014. Discussions regarding potential project implications associated with the proposed stormwater ponds are presented herein.

1.1 Purpose

The purpose of the Level 2 Assessment was to verify the potential presence of chemical contaminants that could affect ROW acquisition, design and/or construction of the proposed roadway corridor. If the presence of such contaminants is verified, further delineation of the horizontal and vertical extent of the soil and/or groundwater contaminant plumes may be needed to support ROW acquisition and associated liability protections. Such additional data may also be necessary to support stormwater management system design, foundation design, and design of remedial strategies that may be necessary during construction to properly mitigate the impacted media without causing adverse impacts to workers and the environment.

1.2 Objectives

The objectives of the Level 2 Assessment presented herein were to: (i) assess the potential for soil and groundwater impacts associated with anticipated contaminant source area(s) via soil and groundwater screening techniques; (ii) provide information necessary to evaluate project impacts

associated with ROW acquisition and construction activities; and (iii) provide site-specific recommendations based on the Level 2 Assessment results and the current roadway design plans.

1.3 Organization of Report

The remainder of this Level 2 Assessment Report is organized as follows:

Section 2.0: *Project Description* - provides an overview of the SR 400 (I-4) Project Development and Environment (PD&E) Study, Segment 3.

Section 3.0: *Summary of Potential Contamination Risk Sites* - provides a summary of the potential contamination sites that were identified in the environmental contamination screening evaluation.

Section 4.0: *Contamination Impact Assessment Methodology* - summarizes the sampling activities performed for this Level 2 Assessment.

Section 5.0: *Investigation Results* - provides a general summary of the sampling results.

Section 6.0: *Data Quality* - summarizes the data quality objectives, and field and laboratory quality control and quality assurance procedures.

Section 7.0: *Conclusions and Recommendations* - summarizes the sampling results and provides site-specific recommendations for the project.

Section 8.0: *Report Limitations* - presents specific limitations associated with the preliminary assessment activities and results herein.

Section 9.0: *Use of Report* - describes the terms of use of this report.

Figures and tables that provide specific details of the Level 2 Assessment activities are presented in the **Appendix**. Copies of all field documentation are provided in **Appendix A** and a copy of the analytical laboratory report is provided in **Appendix B**.

2.0 PROJECT DESCRIPTION

The Florida Department of Transportation (FDOT) is proposing to reconstruct and widen I-4 as part of the I-4 Ultimate concept. This involves the build-out of I-4 to its ultimate condition through Central Florida, including segments in Polk, Osceola, Orange, Seminole, and Volusia Counties. Segment 3 of the project is located in Seminole County, Florida.

Segment 3 of the project is located in southwest Seminole County, Florida. The approximate Segment 3 project limits begin east of SR 434 and extend to east of US 17/92. The project corridor is located in Sections 35 and 36, Township 23 South, Range 28 East, and Sections 1, 2, 11, and 12, Township 24 South, Range 28 East in Seminole County, Florida.

The typical section for this I-4 segment includes 6 general use lanes and 4 tolled express lanes. Drainage will be accumulated in new stormwater ponds outside of the road right-of-way. The Segment 3 project alignment is bordered by mostly residential development along with some commercial buildings. However, there are small sections of undeveloped land consisting of pine flatwoods and palmetto bushes. Two of the proposed ponds are located in heavily wooded areas.

This Level 2 Assessment includes investigation and analyses at the alternative stormwater pond locations for Ponds 300, 300A, 300B, 307, and 308 within Segment 3.

The project study area is shown on the St. Johns River Water Management District Land Use Map, a USGS Quadrangle Map, and the National Resource Conservation Services (NRCS) Soil Survey Map provided on **Figures 1** and **2**.

3.0 SUMMARY OF POTENTIAL CONTAMINATION RISK SITES

The Level 2 Assessments for the following potential contamination sites were recommended due to the lack of sufficient contamination assessment information, documented groundwater flow direction, and/or the distance/location of the sites relative to planned ROW acquisition. The following descriptions are provided for each site addressed in this Level 2 Assessment. **Figures 3** and **4** show the approximate locations of Ponds 300, 300A, 300B, 307, and 308.

3.1 Groundwater Contamination Plume #59263136 (Site No. 41)

The following description was taken from the May 2014 CSER:

The contaminant associated with this plume is the agricultural pesticide ethylene dibromide (EDB), which is usually associated with citrus growing. The contamination plume is under approximately 0.70 miles of the current right-of-way from approximately 0.25 miles south and 0.45 miles north of the EE Williamson Road overpass (see **Appendix A**, **Figure 4** for location). A total of seven additional identified contamination sites are already located within this plume, but the plume should have no impact on the Project at these other sites in addition to any contamination issues they may already have. The entirety of proposed Pond 300-B and the majority of Pond 300 are located within this plume, and proposed Pond 300-A is directly adjacent to the delineated plume. Any construction activities that take place within or adjacent to this plume should be tested for EDB prior to the construction. This plume is rated Medium risk due to the potential for contamination to be present within and adjacent to the right-of-way and the proposed pond sites.

3.2 Advanced Solar Photonics LLC, formerly Siemens and Stromberg-Carlson (FLR000175653, FLD061989448, 29355283) (Site No. 155)

The following description was taken from the May 2014 CSER:

This site is located at 400 Rinehart Road and is currently occupied by Advanced Solar Photonics LLC (FLR000175653), which is listed as a conditionally exempt small quantity generator (approximately 0.22 miles east of the right-of-way). The technology companies Siemens and Stromberg-Carlson (FLD061989448, 29355283) formerly occupied this site and were registered as small quantity generators. In April 1987, 120 metal drums ranging from between 5 and 55 gallons in size were discovered on a little used, heavily vegetated portion of the site, and southwest from the main facility (approximately 0.08 miles east of the right-of-way).The origin or contents of the drums are unknown, but were thought to be waste paint and sludge from the previous owners of the property. The initial investigation report concluded that no significant environmental contamination occurred at the site and noted that many of the drums were empty or no longer had lids. The Investigation Report (1987) for the site indicated that groundwater flowed to the southwest, toward a small depression. The site was monitored for contamination and in April 1990, elevated levels of chromium and phthalates were recorded. There is no available record of the site being cleaned or the drums being removed. One 55 gallon drum with multiple holes and severely rusted was found during a site visit, but numerous monitoring wells are located at the

site. The site currently appears to be heavily used by recreational off-road vehicles, with several areas where dumping has taken place.

No other significant discharges of hazardous wastes were documented at this site under Siemens or Stromberg-Carlson. A 2002 complaint issued from an ex-employee alleged that liquid solder was being stored at the facility behind the building and that it had been going on for years. An inspection of the site found that the solder was being stored properly and found no other violations at the facility. The current occupant, Advanced Solar Photonics LLC, manufactures solar panels and primarily generates waste associated with soldering. An April 2011 complaint from the Lake Mary Fire Department was filed in regard to toxic chemicals without proper labels being stored in a shed on the premises. Advance Solar Photonics LLC contended that the chemicals were abandoned by a previous owner of the property, but they took responsibility for them and properly disposed of them. No other violations or any discharges of hazardous waste have been documented for this occupant of the property.

Pond sites 308 and 309 are located adjacent to, but not in the approximate area where the abandoned drums were located. Numerous citrus trees were observed along the right-of-way, west of the main structure at the facility. There is a potential for this site to have groundwater contamination from ethylene dibromide (EDB) due to historic agricultural practices involving citrus production. This site is rated High risk based on vague records regarding the level of contamination still present at the drum site, the probability that the site was formerly a citrus grove, and its proximity to the right-of-way and pond sites 308 and 309.

3.3 Pond Site 300

Pond Site 300 is located north of the SR 434 interchange, and south of the eastbound rest area on the east side of the right-of-way. A pond is already present on the site, but expansion of the pond into the forested area to its east is proposed. The current pond site is dominated by Bahia grass with mixed herbaceous species. The area for the proposed expansion of the pond site consists primarily of oak forest. No obvious signs of contamination were observed in the field for this site. However, this pond site is partially within the delineated Groundwater Contamination Plume #59263136 (Site # 41) for ethylene dibromide (EDB). Because pond excavation may encounter this contamination plume, this pond site was given a Medium risk rating.

Because pond excavation may encounter this contamination plume, this pond site was given a Medium risk rating.

3.4 Pond Site 300-A

Pond Site 300-A is located north of the SR 434 interchange, and south of the eastbound rest area on the east side of the right-of-way. The site is proposed as a floodplain compensation pond. The majority of the site is forested with oaks, but a patch of cleared land with surficial sand and Bahia grass is located at the northwest corner of the proposed site. The terrain is sloping from southeast to northwest. Several items were discovered at the southwest corner of this proposed pond site, including at least two empty, severely rusted 55-gallon drums that contained unknown materials, the remains of a car battery, and various discarded metal parts. No distressed vegetation was observed, but there is a potential for contamination to be present at the site from the old drums.

This pond site was given a Medium risk rating…

This site is also adjacent to the delineated Groundwater Contamination Plume #59263136 (Site # 41) for ethylene dibromide (EDB). This pond site was given a Medium risk rating due to there being discarded items at the site that may have discharged unknown materials to the soil, and its proximity to a known EDB plume which may be encountered during pond excavation.

3.5 Pond Site 300-B

Pond Site 300-B is located on the west side of I-4, north of the SR 434 interchange and south of the eastbound rest area on the west side of the right-of-way. The site is proposed as a floodplain compensation pond. The pond is located behind single-family residences on Sunshine Tree Boulevard and just south of the soccer field at Markham Woods Church and Christian Academy. The area is primarily forested with oak and cabbage palm, but is very overgrown with air potato vines. This pond site is fully within the delineated Groundwater Contamination Plume #59263136 (Site # 41) for ethylene dibromide (EDB) which may be encountered during excavation pond. Therefore, this pond site was given a Medium risk rating.

…this pond site was given a Medium risk rating.

3.6 Pond Site 307

Pond Site 307 is located along the eastern border of the right-of-way, north of Lake Mary Boulevard, in an undeveloped area. This is an existing pond and no modifications or expansions are proposed. There is evidence that the site is being used by off-road recreational vehicles as a driving area. The pond is mostly exposed dirt with Bahia grass, but the surrounding berm is heavily vegetated with Bahia grass and various weed species. An abandoned jet-ski was observed at the site, but it appeared to be only the hull and did not contain its engine. The location of this site is

very close to the Advanced Solar Photonics LLC, formerly Siemens and Stromberg-Carlson (Site #155) abandoned drum site, which is a potential contamination issue involving heavy metals. Numerous groundwater monitoring wells are located in close proximity to this pond site, and any future modification to the site should not be conducted until further investigations have been completed. This pond site is rated High risk due to its proximity to a known contamination site.

This pond site is rated High risk due to its proximity to a known contamination site.

3.7 Pond Site 308

Pond Site 308 is located along the eastern edge of the right-of-way, north of Lake Mary Boulevard, in an undeveloped area. The existing pond has been proposed to be modified. There is evidence that the site is being used by off-road recreational vehicles as a driving area. The pond primarily consists of un-maintained Bahia grass and various weed species with some wax myrtle and saltbush. An abandoned citrus grove is located to the north of the pond. The location of this site is very close to the Advanced Solar Photonics LLC, formerly Siemens and Stromberg-Carlson (Site #155) abandoned drum site, which is a potential contamination issue involving heavy metals. Numerous groundwater monitoring wells are located in close proximity to this pond site, and any future modification to the site should not be conducted until further investigations have been completed. This pond site is rated High risk due to its proximity to a known contamination site.

This pond site is rated High risk due to its proximity to a known contamination site.

4.0 CONTAMINATION IMPACT ASSESSMENT METHODOLOGY

The following sections provide detailed descriptions of the Level 2 Assessment activities based on known site conditions and our understanding of the SR 400 PD&E Study project needs. Field logs generated during performance of the Level 2 Assessment activities are provided in **Appendix A.**

4.1 Boring Locations

The soil boring locations were based on the limits of Ponds 300, 300A, 300B, 307, and 308. The soil borings were placed at locations most likely to encounter evidence of subsurface contamination resulting from past or current on-site activities. GEC technicians obtained geographic coordinate information at each soil boring and temporary groundwater monitoring well locations. **Table 1** presents the site-specific sampling and analysis rationale for each site. **Figures 3** and **4** show the locations of the soil borings at each of the pond sites investigated.

4.2 Hand Auger Borings

GEC technicians performed standard barrel hand auger borings, by manually turning a 3.25-inch diameter, 6-inch long stainless steel sampler into the soil until the barrel was filled. The sampler was then retrieved and the soil was visually examined and classified. This procedure was repeated until the desired termination depth was achieved. Representative soil samples were collected for further visual examination, organic vapor screening and analytical laboratory testing, where applicable. The hand auger equipment was decontaminated in accordance with Florida Department of Environmental Protection (FDEP) Standard Operating Procedures (SOPs) prior to collecting soil samples for chemical analysis.

4.3 Direct-Push Soil Sampling

Soil samples were also obtained by a truck-mounted Simco[7] hydraulic direct-push rig. Continuous soil samples were obtained by hydraulically driving a 3-inch macro-core soil sampler to the desired depth in 5-foot intervals. Upon retrieval of the soil sample, a field technician visually examined and classified the soil sample. The direct-push sampling equipment was decontaminated in accordance with Florida Department of Environmental Protection (FDEP) Standard Operating Procedures (SOPs) between sampling locations.

Following the completion of the subsurface activities, the soil cuttings were returned to their original location as backfill for the boreholes, in order to return the site as close to its original condition as possible.

4.4 Organic Vapor Soil Screening

In order to assess the potential for petroleum product or volatile hazardous material contaminated soils that may have resulted from activities conducted on or adjacent to each site, GEC screened soil samples obtained at a total of 37 boring locations. **Figures 3** and **4** show the approximate soil boring locations at each respective site.

Soil samples were collected at approximate 2-foot subsurface sampling intervals beginning one foot below the ground surface to a maximum of 20 feet below land surface (bls). Soil samples that were retrieved from the hand auger and direct push borings were visually inspected for indications of soil contamination, such as soil staining and/or odors, which might be indicative of hazardous material or petroleum product impacts. Samples from each of the borings were screened in the field using a calibrated Thermo Electron Corporation Model TVA-1000B Organic Vapor Analyzer

(OVA) equipped with a flame ionization detector (FID) following guidelines for head space analysis set forth in the FDEP document entitled Guidelines for Assessment and Source Removal of Petroleum Contaminated Soil, dated May 1998. Glass sample jars were half-filled with soil, covered with aluminum foil, sealed, and set aside to allow the volatiles to equilibrate throughout the head space. The organic vapor response for each soil sample was determined by inserting the probe of the OVA-FID into the head space of the sample container and recording the highest sustained reading. The two-jar method was used to obtain total organic vapor readings and carbon filter readings, to account for the presence of naturally occurring methane in site soils. The resultant total non-methane hydrocarbon level is calculated by subtracting the carbon filtered response from the total response. Organic vapor measurements are summarized on **Tables 2A** through **2E**. Soil boring logs are included in **Appendix A-1** and equipment calibration logs are included in **Appendix A-2**.

4.5 Soil Sampling and Analysis

Soil samples for analytical testing were collected from the locations that exhibited the highest OVA readings or locations that were most likely to encounter contaminated media to verify the potential presence of chemical impacts. The samples were transported to Environmental Conservation Laboratories (ENCO) for analysis.

Composite soil samples for pesticides and herbicides were taken from depths of 0 to 2 feet bls at the following location in ponds 300, 300A, and 300B:

Pond 300		Pond 300A		Pond 300B	
Sample ID	Soil Boring ID	Sample ID	Soil Boring ID	Sample ID	Soil Boring ID
CS-23	SB-90	CS-21	SB-96	CS-26	SB-87
CS-24	SB-92	CS-22	SB-99	CS-27	SB-89
CS-25	SB-95				

Grab Soil samples for metals and the waste oil/unknown group were taken from the following locations and depths in ponds 307 and 308:

Pond 307		Pond 308	
Soil Boring ID	Sample Depth	Soil Boring ID	Sample Depth
SB-107	1.5	SB-117	1.5
SB-109	8.5	SB-122	4.0

Table 1 summarizes the site-specific sampling rationale and analytical methods used. Soil sample locations are shown for each site on **Figures 3** and **4**.

GEC compared the analytical results of chemical constituents to the Soil Cleanup Target Levels (SCTLs) provided in Chapter 62-777, FAC. **Tables 3A** through **3C** provide a summary of the detected constituent concentrations exhibited within the collected analytical samples. A detailed discussion of the soil analytical results is included in Section 7.0.

4.6 Groundwater Sampling and Analysis

To assess the potential for groundwater contamination impacts that may have resulted from chemical releases, GEC obtained analytical groundwater samples from each site by installing a temporary groundwater monitoring well. The sampling locations were based on the OVA soil screening results and field observations. The wells were installed by GEC utilizing hand auger methods. The well assembly consisted of an approximately 5-foot section of pre-packed 1-inch diameter, 0.01-inch factory slotted polyvinyl chloride (PVC) pipe coupled with a PVC monitoring well point (bottom) and topped with a section of solid PVC riser. The PVC well point, well screen, and riser were transported to the site wrapped in protective plastic. After removing the protective wrap, the assembled groundwater monitoring well was lowered into 3.25-inch steel casing. Following installation of the well assembly, the steel casing was removed. Subsequent to sampling activities, the temporary well was properly abandoned or removed from the ground.

GEC collected the groundwater sample using low-flow sampling techniques and transported the samples to ENCO for analysis. The groundwater samples collected TMW-7 and TMW-8 at Ponds 300 and 300B, respectively, were submitted for analysis by EPA methods 601 for arsenic, 8081 for pesticides, and 8151 for herbicides. The groundwater samples collected from TMW-9 and TMW-10 at Ponds 307 and 308, respectively, were submitted for analysis by EPA methods 8260 for VOAs, 8270 for PAHs, FL-Pro for TRPH, 6010 for arsenic, 8081 for pesticides, and 8082 for PCBs. A detailed discussion of the groundwater analytical results is included in Section 7.0. **Table 1** summarizes the site-specific sampling rationale and analytical methods used. The groundwater sample locations are shown for each site on **Figures 3** and **4**. The groundwater sampling log and well construction detail are provided in **Appendix A-3**.

5.0 INVESTIGATION RESULTS

The following sections describe the results of the Level 2 Assessment activities. **Figures 3** and **4** show the sample locations at each site. **Table 1** summarizes the site-specific sampling rationale and

analytical methods used. **Tables 2A** through **2E** present the results of the OVA screening. **Tables 3A** through **3C** and **4** provide summaries of soil and groundwater chemical detections as compared to applicable FDEP default clean-up target levels. Only chemical detections are listed in the laboratory results summary tables.

5.1 Soil OVA Soil Screening

The results of the OVA soil screening conducted at a total of 37 boring locations are included in **Tables 2A** through **2E**. Elevated soil screening values (>10) were not detected within the soil borings. Organic odors were not observed within any of the soil borings. Detailed discussions of the soil OVA screening results by site are included in Section 7.0. **Tables 2A** through **2E** also indicate the soil types, groundwater depths, and dates that the borings were performed.

5.2 Soil Analysis

Soil samples were collected for analytical laboratory testing at the locations and depths which exhibited the highest positive OVA soil screening results, or were most likely to encounter contamination due to property use and field observations. GEC compared the analytical results to SCTLs provided in Chapter 62-777, FAC. Detectable concentrations of chemicals were identified in the soil samples, but the concentrations did not exceed the FDEP SCTLs for direct exposure in residential or industrial settings. **Tables 3A** through **3C** provide a summary of the detected constituent concentrations exhibited within the collected analytical samples. A detailed discussion of the soil analytical results is included in Section 7.0.

5.3 Groundwater Analysis TMW-7, TMW-8, TMW-9, and TMW-10

To assess the potential for groundwater contamination impacts that may have resulted from chemical releases, one groundwater sample was collected for analytical laboratory testing at each proposed pond site (TMW-7, TMW-8, TMW-9, and TMW-10). The sample locations were chosen based on the OVA soil screening results. GEC compared the analytical results of chemical constituents to the Groundwater Cleanup Target Levels (GCTLs) provided in Chapter 62-777, FAC. Detectable concentrations of chemicals were identified in the groundwater samples from TMW-9 and TMW-10, but contaminant concentrations did not exceed FDEP GCTLs for direct exposure in residential or commercial settings. **Table 4** provides a summary of the detected constituent concentrations exhibited within the collected analytical samples. A detailed discussion of the groundwater analytical results is included in Section 7.0.

6.0 DATA QUALITY

6.1 Data Quality Control and Validation

In order to achieve the data quality objectives (DQOs), various field and laboratory quality assurance and quality control (QA/QC) procedures were implemented to verify the integrity of the chemical data. The following provides a summary of the QA/QC framework used to obtain the target DQOs.

6.2 Field QA/QC

All soil and groundwater sampling activities performed by GEC personnel during this environmental investigation were conducted in accordance with FDEP Standard Operating Procedures for Field Activities (FDEP SOP-001/01), FS-2200 (Groundwater Sampling), and FS-3000 (Soil Sampling) dated March 1, 2014. In addition, laboratory analytical methods and reporting were conducted in accordance with Chapter 62-160, FAC to ensure high data quality. Field instrument calibration forms and groundwater sampling logs are provided in **Appendix A-2** and **A-3**, respectively.

Analytical laboratory reports are included in **Appendix B**. Due to the preliminary screening aspect of this investigation, equipment blanks and field duplicate samples were not collected during the field activities.

6.3 Laboratory QA/QC

All soil and groundwater samples were submitted in laboratory-supplied containers for analysis to Environmental Conservation Laboratories, Inc. (NELAP #E83182). The laboratory reports indicated that the laboratory analyzed the samples using the correct analytical methods. In general, control limits were within acceptable ranges for all laboratory quality assurance samples, method blanks, surrogate standards, laboratory control spikes (LCS), and matrix spikes / matrix spike duplicates (MS/MSD). As shown on **Tables 3A** through **3C** and **4** chemical constituents that were identified at concentrations at or near the laboratory method detection limits (MDLs) but below the laboratory practical quantitation limits were assigned an “I” qualifier.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The following subsections describe the site-specific conclusions and recommendations based on supplemental public record review, soil screening activities, analytical laboratory results, and the proposed roadway alignment associated with the I-4 PD&E Study, Segment 3, Ponds 300, 300A, 300B, 307, and 308 project.

7.1 Pond 300

GEC performed six soil screening borings at this site as shown on **Figure 3**. Soil borings SB-90 through SB-95 were positioned at regular intervals within the limits of the proposed Pond 300. The groundwater table was encountered between approximately 6.0 to 13.0 feet below land surface at the pond site. The soil borings did not exhibit an elevated organic vapor response. Composite soil samples were collected at the locations of borings SB-90, SB-92, and SB-94 at depths of 0 to 2 feet below land surface and submitted for analyses for arsenic, pesticides, and herbicides. The groundwater sample was obtained from TMW-7 (SB-92) and submitted for analyses for arsenic, pesticides, and herbicides. The laboratory analytical results indicated detections in the samples at levels below commercial and residential cleanup target levels listed in Chapter 62-777, FAC and Maximum Contaminant Levels listed in Chapter 62-550, FAC.

Based on the results of the Level 2 Assessment, it appears that the soil and groundwater have not been impacted at this time and would not require special handling, characterization, and disposal provisions. GEC does not recommend any further contamination assessments to be performed at this location.

7.2 Pond 300A

GEC performed five soil screening borings at this site as shown on **Figure 3**. Soil borings SB-96 through SB-100 were positioned at regular intervals within the limits of the proposed Pond 300A. The groundwater table was not encountered to a depth of approximately 20 feet below land surface at the pond site. The soil borings did not exhibit an elevated organic vapor response. Composite soil samples were collected at the locations of borings SB-96 and SB-100 at depths of 0 to 2 feet below land surface and submitted for analyses for arsenic, pesticides, and herbicides. No groundwater sample was obtained due to the depth of groundwater being greater than 20 feet below land surface. The laboratory analytical results indicated detections in the samples at levels below commercial and residential cleanup target levels listed in Chapter 62-777, FAC and Maximum Contaminant Levels listed in Chapter 62-550, FAC.

Based on the results of the Level 2 Assessment, it appears that the soil has not been impacted at this time and would not require special handling, characterization, and disposal provisions. GEC does not recommend any further contamination assessments to be performed at this location.

7.3 Pond 300B

GEC performed four soil screening borings at this site as shown on **Figure 3**. Soil borings SB-86 through SB-89 were positioned at regular intervals within the limits of the proposed Pond 300B. The groundwater table was encountered at approximately 15.0 feet below land surface at the pond site. The soil borings did not exhibit an elevated organic vapor response. Composite soil samples were collected at the locations of borings SB-87 and SB-89 at depths of 0 to 2 feet below land surface and submitted for analyses for arsenic, pesticides, and herbicides. The groundwater sample was obtained from TMW-8 (SB-88) and submitted for analyses for arsenic, pesticides, and herbicides. The laboratory analytical results indicated detections in the samples at levels below commercial and residential cleanup target levels listed in Chapter 62-777, FAC and Maximum Contaminant Levels listed in Chapter 62-550, FAC.

Based on the results of the Level 2 Assessment, it appears that the soil and groundwater have not been impacted at this time and would not require special handling, characterization, and disposal provisions. GEC does not recommend any further contamination assessments to be performed at this location.

7.4 Pond 307

GEC performed 9 soil screening borings at this site, as shown on **Figure 4**. Soil borings SB-101 through SB-109 were located at regular intervals throughout the pond site. The groundwater level was encountered at approximately 9.0 feet below land surface at the pond site. The soil borings did not exhibit an elevated organic vapor response.

Soil samples were collected at the locations of borings SB-107 (1.5 feet bls) and SB-109 (8.5 feet bls). Temporary well TMW-9 was installed in boring SB-105. The groundwater from TMW-9 and soil from SB-107 and SB-109 were analyzed for the Table D Waste Oil/Unknown Group. The laboratory analytical results indicated detections in the soil and groundwater samples at levels below commercial and residential cleanup target levels listed in Chapter 62-777, FAC and Maximum Contaminant Levels listed in Chapter 62-550, FAC.

Based on the results of the Level 2 Assessment, it appears that the soil and groundwater have not been impacted at this time and would not require special handling, characterization, and disposal provisions. GEC does not recommend any further contamination assessments to be performed at this location. **It is recommended that the Florida Department of Environmental Protection be included in the discussions regarding this pond site due to the nearby groundwater contamination plume (approximately 750 feet) on the former Siemens facility and Crescent Property (This is discussed in more detail in the Pond 308 write-up below.). Dewatering activities and stormwater infiltration may impact the nearby groundwater contamination plume.**

7.5 Pond 308

GEC performed 13 soil screening borings at this site, as shown on **Figure 4**. Soil borings SB-110 through SB-122 were located at regular intervals throughout the pond site. The groundwater level ranged from approximately 5.5 to 9.5 feet below land surface at the pond site. The soil borings did not exhibit an elevated organic vapor response.

Soil samples were collected at the locations of borings SB-117 (1.5 feet bls) and SB-122 (8.5 feet bls). Temporary well TMW-10 was installed in boring SB-122. The groundwater from TMW-10 and soil from SB-117 and SB-122 were analyzed for the Table D Waste Oil/Unknown Group. The laboratory analytical results indicated detections in the soil and groundwater samples at levels below commercial and residential cleanup target levels listed in Chapter 62-777, FAC and Maximum Contaminant Levels listed in Chapter 62-550, FAC.

Pond 308 is located adjacent to a groundwater contamination plume of chlorinated compounds and 1,4-Dioxane, associated with former Siemens and Stromberg-Carlson facility (FDEP Waste Cleanup ID # Com_22379). While this area of contamination impacts does not appear to have affected Pond 308, the contamination plume is estimated to be within approximately 200 feet of the pond. The former Siemens facility's latest report was the March 2014 Annual Groundwater Monitoring Report for 2013 by Brown and Caldwell. This report documents a pump and treat system at the former Siemens facility and a large area of impacted groundwater, up to approximately 3,000 feet across. More recently, Geosyntec submitted a January 2015 report for the Crescent Property (located southwest of the former Siemen's facility) that documents the chlorinated compounds and 1,4-Dioxane groundwater contamination plume as being smaller and apparently stable (not migrating). The Geosyntec report documents the intention for the Crescent Property to be developed, and cautions from FDEP regarding dewatering and unlined stormwater ponds being concerns. Excerpts and figures from the two reports are attached as **Appendix C**.

Based on the results of the Level 2 Assessment, it appears that the soils and groundwater have not been impacted at this time and would not require special handling, characterization, and disposal provisions. GEC does not recommend any further contamination assessments to be performed at this location. **It is recommended that the Florida Department of Environmental Protection be included in the discussions regarding this pond site due to the nearby contamination plume (approximately 200 feet) on the former Siemens facility and Crescent Property. Dewatering activities and stormwater infiltration may impact the nearby groundwater contamination plume.**

7.6 Other General Conclusions and Recommendations

The nature and scope of this Level 2 Assessment was not intended to provide a warranty that the project corridor is free of contamination or release contractors from complying with any and all permitting requirements and/or construction specifications that would represent a liability to the FDOT or to the User of this report.

Although contaminant source material may not be present within the proposed project corridor on some sites investigated, exceedances of surface water discharge criteria may be encountered while performing dewatering in the project corridor. Although these could be due to background conditions only, the FDOT should ensure that FDEP NPDES discharge criteria are met by the contractor during construction.

The data provided in this Level 2 Assessment should be utilized as the ROW acquisition process progresses. FDOT legal representatives should be should be consulted regarding the statutory and financial responsibility for ownership of contaminated property. GEC also recommends that asbestos and other hazardous building materials survey be conducted at locations in which existing structures will be acquired and demolished as part of this project.

If petroleum-containing or hazardous materials, and/or contaminated soils/groundwater are encountered during performance of construction activities, appropriate activities should be immediately taken to protect site worker safety and (if possible) to prevent the spread of contamination to otherwise non-impacted media. If such materials should be encountered, or if the proposed roadway alignment or stormwater pond sites are changed, GEC should be contacted immediately for consultation.

8.0 REPORT LIMITATIONS

The findings, opinions, conclusions, and recommendations presented herein are based on the soil and groundwater samples obtained at specific locations and explored depths below ground surface at the time of this assessment (December 2014 and January 2015). The Level 2 Assessment was conducted based in part on readily available and practically reviewable information contained in the public record. GEC does not warrant or guarantee the accuracy or completeness of this information. Some of this public record information may be dated and not representative of conditions at the time this report was prepared (January and February 2015), or in the future. Please refer to this report and supporting documentation, including the May 2014 CSER, in its entirety for a complete understanding regarding our evaluation methodology and the age and limitations of the data upon which we have relied in formulating our findings, opinions, conclusions and/or recommendations.

The conclusions and recommendations presented herein are based on the OVA screening on pre-determined locations, public record information review, and analytical laboratory analysis results. Investigation of the full extent of any contamination plumes was not the objective of this Level 2 Assessment. Groundwater samples collected during the Level 2 Assessment activities were obtained by the installation of temporary groundwater monitoring wells.

This report does not contain discussions on asbestos-containing materials surveys, lead-based paint surveys, mold surveys, radon gas surveys, lead in drinking water analysis, wetlands surveys, regulatory compliance audits, cultural and historical analyses, industrial hygiene or health and safety audits, ecological surveys, endangered or threatened species evaluations, indoor air quality surveys, engineering investigations, or building suitability studies.

9.0 USE OF REPORT

This report is intended for the exclusive use of our clients, HNTB and FDOT and for specific application to our client's project. GEC expressly disclaims any and all liability resulting from reliance on this report by those not authorized, in writing, by GEC.

GEC has strived to provide the services described in this report in a manner consistent with that level of care and skill ordinarily exercised by members of our profession currently practicing in Central Florida. No other representation is expressed or implied in this document.

The conclusions or recommendations of this report should be disregarded if the nature, design or location of the proposed corridor and facilities is changed. If such changes are contemplated, GEC should be retained to review the new plans to assess the applicability of this report in light of proposed changes.

FIGURES

J:\D106\3492G\3492E Landuse SEG 3.mxd 2/2/2015

LAND USE CLASSIFICATION INDEX

1200 - Residential, medium density
3100 - Herbaceous Upland Nonforested
8140 - Roads and highways
8370 - Surface water collection basin

N W E S

0 500 1,000
Feet

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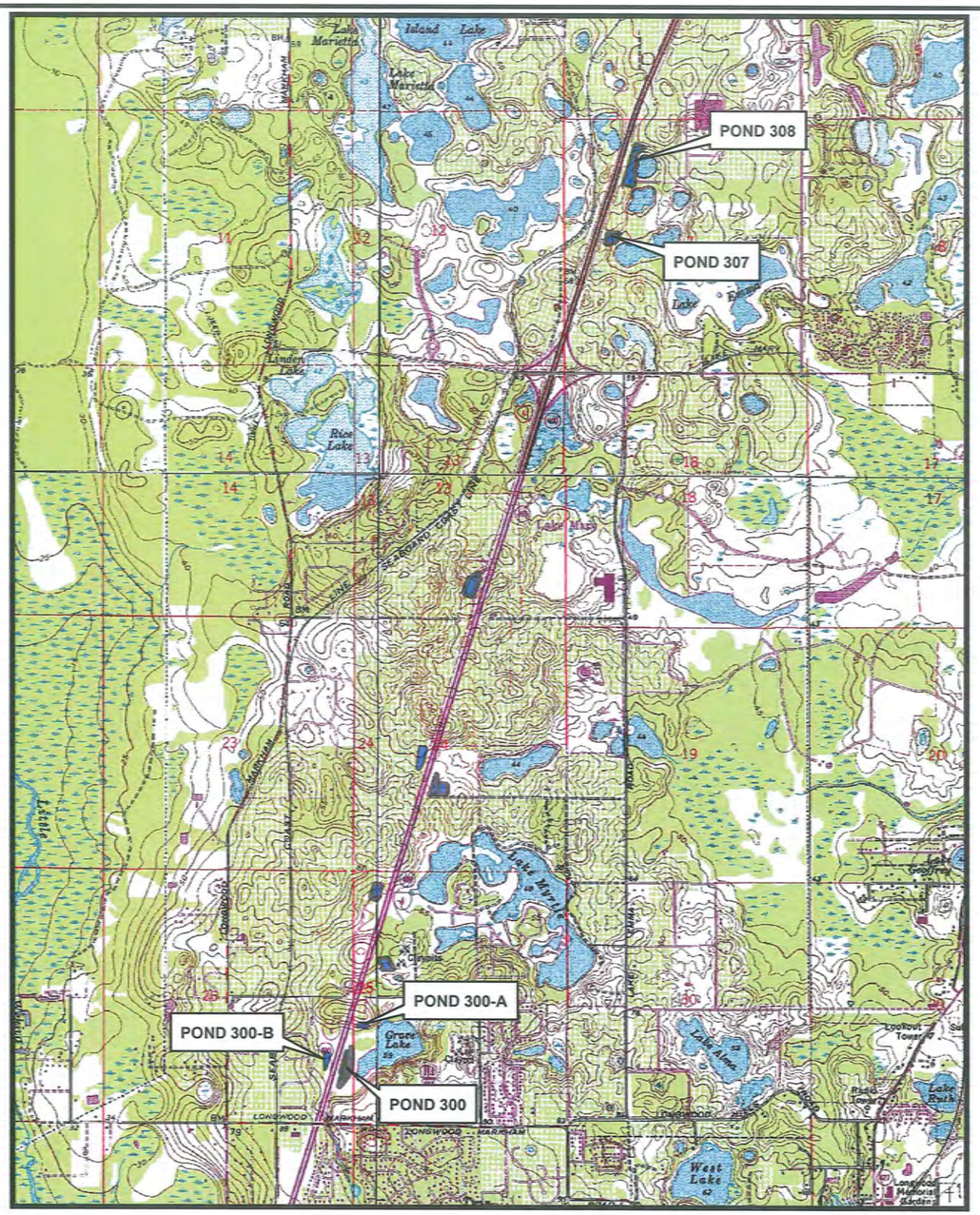
GARY L. KUHNS P.E. NO. 38704

FIGURE 1 - LAND USE PLAN



Prepared from:
USGS Forest City, FL Quadrangle Map
Sections: 25, 26
Township: 20 South
Range: 29 East

USGS Casselberry, FL Quadrangle Map
Sections: 13, 24
Township: 20 South
Range: 29 East

USGS Sanford, FL Quadrangle Map
Sections: 5, 6, 7, 18
Township: 20 South
Range: 29 East

0 1,500 3,000
Feet

0 500 1,000
Feet

Prepared from:
NRCS Soil Survey of Seminole County, FL
Seminole County Map Unit Legend
6 - Astatula-Apopka fine sands, 0 to 5 percent slopes
8 - Astatula-Apopka fine sands, 8 to 12 percent slopes
10 - Basinger, Samsula, and Hontoon soils, depressional
20 - Myakka and EauGallie fine sands

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J:\D106\3492G\3492Gquad5.mxd 2/2/2015

FIGURE 2 - USGS QUADRANGLE AND NRCS SOIL SURVEY MAPS

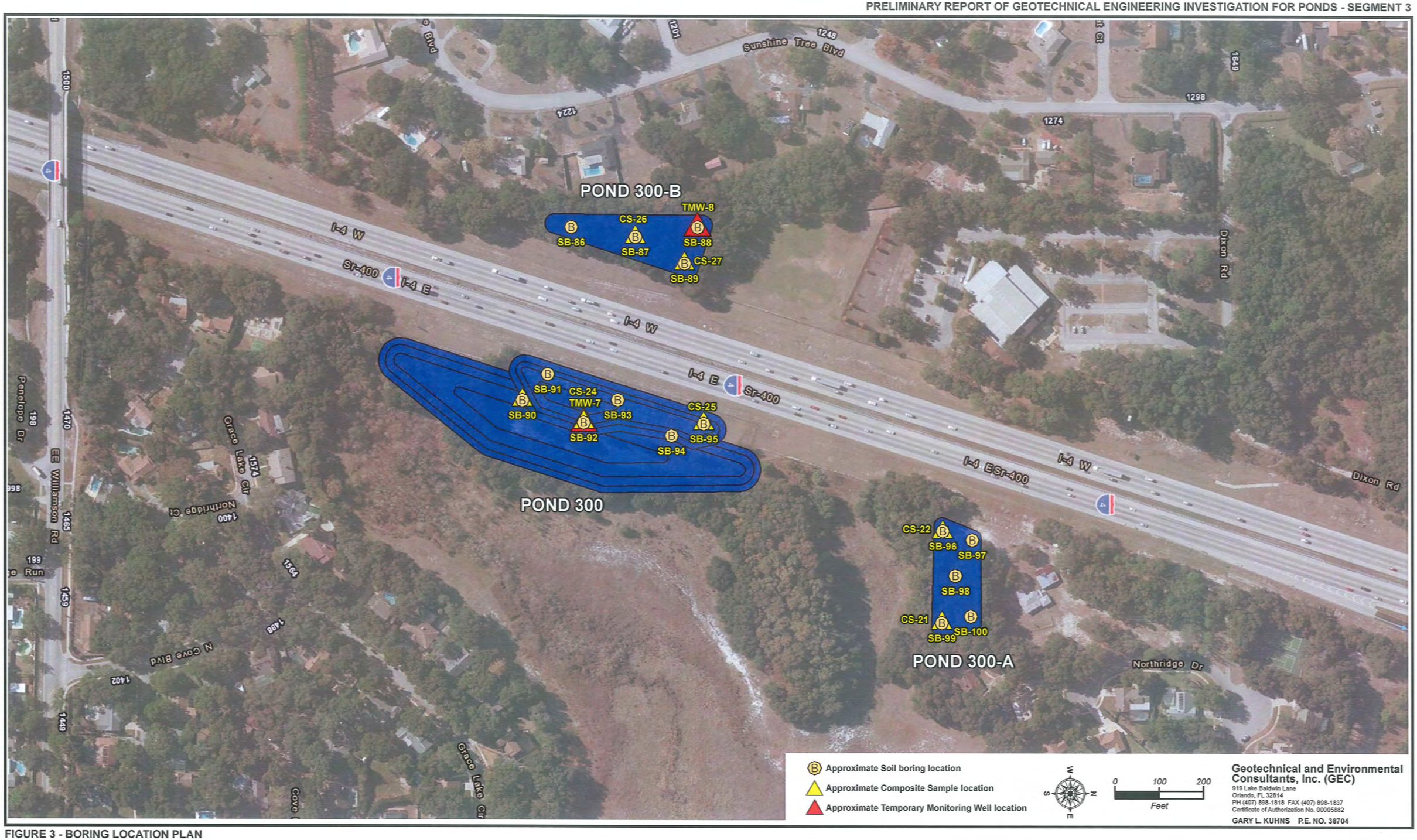

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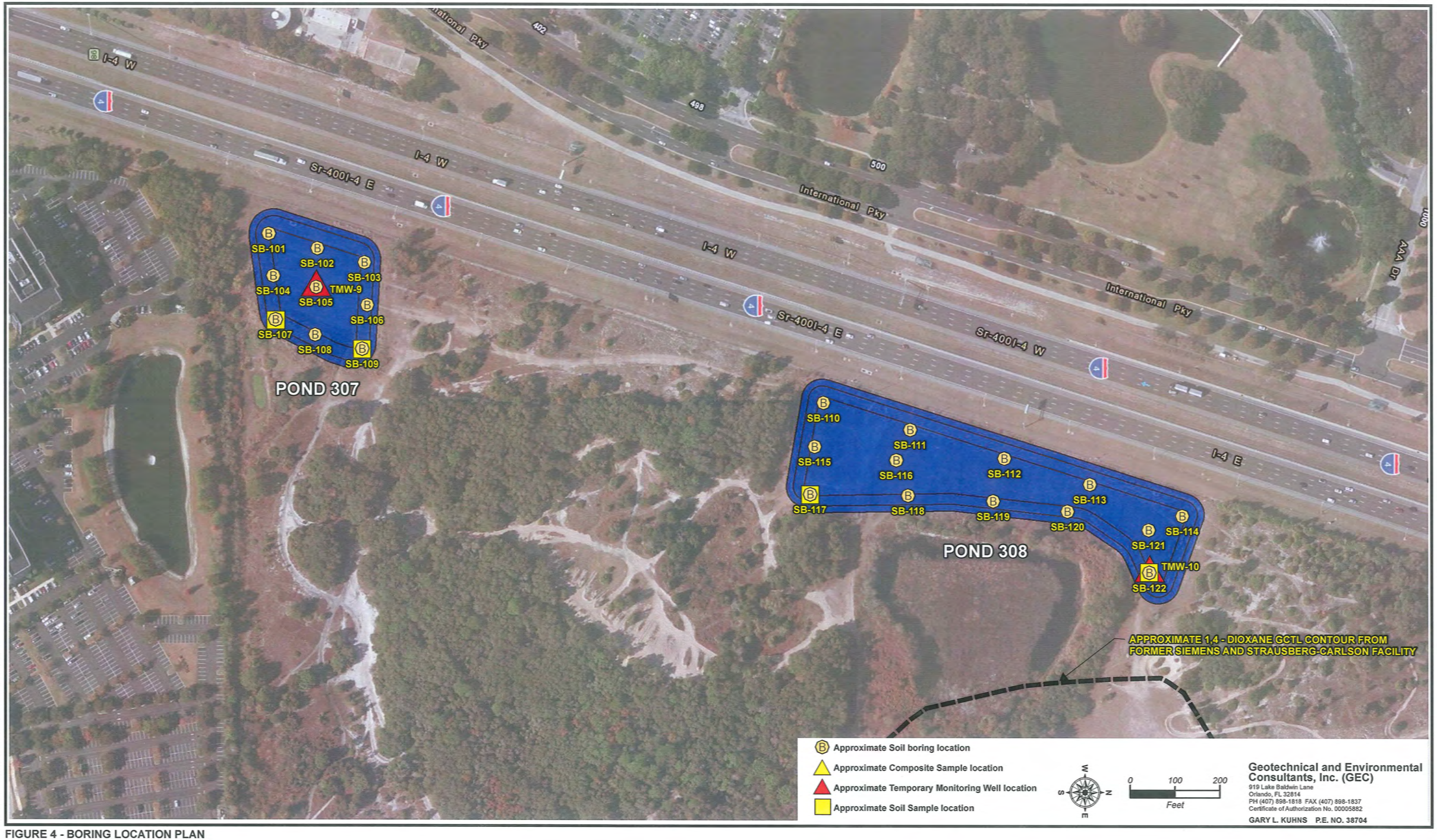
FIGURE 3 - BORING LOCATION PLAN



J:\D106\3492G\3492E06A.mxd 2/6/2015

FIGURE 4 - BORING LOCATION PLAN

TABLES

Table 1
Site-Specific Sampling, Analysis and Rationale
I-4 PD&E Study Level 2 Contamination Assessment
Segment 3
Ponds 300, 300A, 300B, 307, and 308
FPID No. 432100-1-22-01
GEC Project No. 3492E

Site Name & Address	Sample ID	Matrix	Designated Analysis	Sampling Rationale
Pond 300	CS-23 through CS-25	Soil	6010, 8081, 8151	Historic citrus grove and EDB groundwater contamination plume area. Soil sampled for arsenic, pesticides, and herbicides.
	TMW-7	Groundwater	6010, 8081, 8151	Historic citrus grove and EDB groundwater contamination plume area. Groundwater sampled for arsenic, pesticides, and herbicides.
Pond 300A	CS-21 and CS-22	Soil	6010, 8081, 8151	Historic citrus grove and EDB groundwater contamination plume area. Soil sampled for arsenic, pesticides, and herbicides. Groundwater greater than 20 feet below land surface, therefore, not sampled.
Pond 300B	CS-26 and CS-27	Soil	6010, 8081, 8151	Historic citrus grove and EDB groundwater contamination plume area. Soil sampled for arsenic, pesticides, and herbicides.
	TMW-8	Groundwater	6010, 8081, 8151	Historic citrus grove and EDB groundwater contamination plume area. Groundwater sampled for arsenic, pesticides, and herbicides.
Pond 307	SB-107 (1.5 ft bls) and SB-109 (8.5 ft bls)	Soil	6010, 7471, 8081, 8082, 8260, 8270, FL-PRO	Located near the groundwater contamination plume from the former Siemens and Stromberg-Carlson facility. Soil sampled for metals and the Table D waste oil/unknown group.
	TMW-9	Groundwater	6010, 7471, 8081, 8082, 8260, 8270, FL-PRO	Located near the groundwater contamination plume from the former Siemens and Stromberg-Carlson facility. Groundwater sampled for metals and the Table D waste oil/unknown group.
Pond 308	SB-117 (1.5 ft bls) and SB-122 (4.0 ft bls)	Soil	6010, 7471, 8081, 8082, 8260, 8270, FL-PRO	Located near the groundwater contamination plume from the former Siemens and Stromberg-Carlson facility. Soil sampled for metals and the Table D waste oil/unknown group.
	TMW-10	Groundwater	6010, 7471, 8081, 8082, 8260, 8270, FL-PRO	Located near the groundwater contamination plume from the former Siemens and Stromberg-Carlson facility. Groundwater sampled for metals and the Table D waste oil/unknown group.

Notes:
1. 6010 = Arsenic.
2. 7471 = Mercury.
3. 8260 = Volatile Organic Compounds.
4. 8270 = Semi-volatile Organic Compounds/Polycyclic Aromatic Hydrocarbons.
5. FL-PRO = Florida Petroleum Range Organics.
6. OVA = Organic Vapor Analyzer.
7. 8082 = Polychlorinated biphenyls.
8. 8141 = Organophosphorous compounds.
9. 8151 = Chlorinated herbicides.
10. 8081 = Organochlorine pesticides.

Table 2A

Summary of Soil Organic Vapor Analysis

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Pond 300

FPID No. 432100-1-22-01

GEC Project No. 3492E

Boring Data		Soil Sample OVA Data (FID)							
Boring No.	Date Conducted	Depth to Water (ft)	Sample Depth (ft)	FID	Total Reading	Filtered Reading	Net Reading	Odor	Soil Sample Description
SB-90	12/23/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SPSM
			7		<1	-	<1	N	SM
			9		<1	-	<1	N	SM
			11		<1	-	<1	N	SM
		13	13		<1	-	<1	N	SM
SB-91	12/23/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SM
		6.5	7		<1	-	<1	N	SM
SB-92	12/23/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		4	-	4	N	SPSM
		7	7		1	-	1	N	SM
			9		<1	-	<1	N	SM
			10		<1	-	<1	N	SPSM
SB-93	12/23/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SM
		6	6		<1	-	<1	N	SPSM
SB-94	12/23/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SPSM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM
SB-95	12/23/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SPSM

Notes:

1. Soil Screened with a Thermo Electron Corporation OVA Model TVA-1000B and measured in parts per million (ppm).
2. SP = poorly graded fine sand, SM = silty sand, SC = clayey sand, CH = inorganic clay SPSM = fine sand with silt.
3. ft = feet.
4. FID = Flame Ionization Detector.
5. - = Filtered reading data not collected for total readings <10 ppm.
6. Net readings above 10 ppm indicate the potential presence of soil contamination.
7. GNE = Groundwater not encountered.

Table 2B

Summary of Soil Organic Vapor Analysis

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Pond 300A

FPID No. 432100-1-22-01

GEC Project No. 3492E

Boring Data		Soil Sample OVA Data (FID)							
Boring No.	Date Conducted	Depth to Water (ft)	Sample Depth (ft)	PID	Total Reading	Filtered Reading	Net Reading	Odor	Soil Sample Description
SB-96	12/22/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SC
			7		<1	-	<1	N	SC
			9		<1	-	<1	N	SM
			11		<1	-	<1	N	SM
			13		<1	-	<1	N	SM
			15		<1	-	<1	N	SP
			17		<1	-	<1	N	SPSM
			19		<1	-	<1	N	SM
		GNE	20		<1	-	<1	N	SPSM
SB-97	12/22/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SC
			7		<1	-	<1	N	SC
			9		<1	-	<1	N	SC
			11		<1	-	<1	N	SC
			13		<1	-	<1	N	SC
			15		<1	-	<1	N	SM
			17		<1	-	<1	N	SC
			19		<1	-	<1	N	SPSM
		GNE	20		1	-	1	N	SPSM
SB-98	12/22/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SC
			7		<1	-	<1	N	SC
			9		<1	-	<1	N	SC
			11		<1	-	<1	N	SM
			13		<1	-	<1	N	SM
			15		<1	-	<1	N	SPSM
			17		<1	-	<1	N	SPSM
			19		<1	-	<1	N	SPSM
		GNE	20		<1	-	<1	N	SPSM
SB-99	12/22/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SC
			5		1	-	1	N	SC
			7		1	-	1	N	SP
			9		<1	-	<1	N	SP
			11		<1	-	<1	N	SPSM
			13		<1	-	<1	N	SPSM
			15		<1	-	<1	N	SP
			17		<1	-	<1	N	SC
			19		<1	-	<1	N	SC
		GNE	20		<1	-	<1	N	SC

Table 2B

Summary of Soil Organic Vapor Analysis

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Pond 300A

FPID No. 432100-1-22-01

GEC Project No. 3492E

Boring Data		Soil Sample OVA Data (FID)							
Boring No.	Date Conducted	Depth to Water (ft)	Sample Depth (ft)	PID	Total Reading	Filtered Reading	Net Reading	Odor	Soil Sample Description
SB-100	12/22/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SM
			5		<1	-	<1	N	SC
			7		<1	-	<1	N	SC
			9		<1	-	<1	N	SC
			11		<1	-	<1	N	SC
			13		<1	-	<1	N	SM
			15		<1	-	<1	N	SPSM
			17		<1	-	<1	N	SP
			19		<1	-	<1	N	SP
		GNE	20		<1	-	<1	N	SP

Notes:

1. Soil Screened with a Thermo Electron Corporation OVA Model TVA-1000B and measured in parts per million (ppm).
2. SP = poorly graded fine sand, SM = silty sand, SC = clayey sand, CH = inorganic clay, SPSM = fine sand with silt.
3. ft = feet.
4. FID = Flame Ionization Detector.
5. - = Filtered reading data not collected for total readings <10 ppm.
6. Net readings above 10 ppm indicate the potential presence of soil contamination.
7. GNE = Groundwater not encountered.

Table 2C

Summary of Soil Organic Vapor Analysis

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Pond 300B

FPID No. 432100-1-22-01

GEC Project No. 3492E

Boring Data		Soil Sample OVA Data (FID)							
Boring No.	Date Conducted	Depth to Water (ft)	Sample Depth (ft)	PID	Total Reading	Filtered Reading	Net Reading	Odor	Soil Sample Description
SB-86	12/29/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SP
			7		<1	-	<1	N	SP
			9		<1	-	<1	N	SP
			11		<1	-	<1	N	SP
			13		<1	-	<1	N	SM
		15	15		<1	-	<1	N	SM
SB-87	12/29/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SP
			7		<1	-	<1	N	SM
			9		<1	-	<1	N	SM
			11		<1	-	<1	N	SM
			13		<1	-	<1	N	SM
		15	15		<1	-	<1	N	SM
SB-88	12/29/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SP
			7		<1	-	<1	N	SM
			9		<1	-	<1	N	SM
			11		<1	-	<1	N	SM
			13		<1	-	<1	N	SM
		15	15		<1	-	<1	N	SPSM
SB-89	12/29/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SP
			7		<1	-	<1	N	SC
			9		<1	-	<1	N	SM
			11		<1	-	<1	N	SM
			13		<1	-	<1	N	SM
		15	15		<1	-	<1	N	SM

Notes:

1. Soil Screened with a Thermo Electron Corporation OVA Model TVA-1000B and measured in parts per million (ppm).
2. SP = poorly graded fine sand, SM = silty sand, SC = clayey sand, CH = inorganic clay, SPSM = fine sand with silt.
3. ft = feet.
4. FID = Flame Ionization Detector.
5. - = Filtered reading data not collected for total readings <10 ppm.
6. Net readings above 10 ppm indicate the potential presence of soil contamination.
7. GNE = Groundwater not encountered.

Table 2D

Summary of Soil Organic Vapor Analysis

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Pond 307

FPID No. 432100-1-22-01

GEC Project No. 3492E

Boring Data		Soil Sample OVA Data (FID)							
Boring No.	Date Conducted	Depth to Water (ft)	Sample Depth (ft)	FID	Total Reading	Filtered Reading	Net Reading	Odor	Soil Sample Description
SB-101	12/30/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SM
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM
SB-102	12/30/14		1		<1	-	<1	N	SM
			3		<1	-	<1	N	SM
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM
SB-103	12/30/14		1		<1	-	<1	N	SM
			3		<1	-	<1	N	SM
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM
SB-104	12/30/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM
SB-105	12/30/14		1		<1	-	<1	N	SP
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM
SB-106	12/30/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM
SB-107	12/30/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SP
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM
SB-108	12/30/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM

Table 2D

Summary of Soil Organic Vapor Analysis

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Pond 307

FPID No. 432100-1-22-01

GEC Project No. 3492E

Boring Data		Soil Sample OVA Data (FID)							
Boring No.	Date Conducted	Depth to Water (ft)	Sample Depth (ft)	FID	Total Reading	Filtered Reading	Net Reading	Odor	Soil Sample Description
SB-109	12/30/14		1		<1	-	<1	N	SP
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SM
			7		<1	-	<1	N	SM
		9	9		<1	-	<1	N	SM

Notes:

1. Soil Screened with a Thermo Electron Corporation OVA Model TVA-1000B and measured in parts per million (ppm).
2. SP = poorly graded fine sand, SM = silty sand, SC = clayey sand, CH = inorganic clay SPSM = fine sand with silt.
3. ft = feet.
4. FID = Flame Ionization Detector.
5. - = Filtered reading data not collected for total readings <10 ppm.
6. Net readings above 10 ppm indicate the potential presence of soil contamination.
7. GNE = Groundwater not encountered.

Table 2E

Summary of Soil Organic Vapor Analysis

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Pond 308

FPID No. 432100-1-22-01

GEC Project No. 3492E

Boring Data		Soil Sample OVA Data (FID)							
Boring No.	Date Conducted	Depth to Water (ft)	Sample Depth (ft)	FID	Total Reading	Filtered Reading	Net Reading	Odor	Soil Sample Description
SB-110	12/31/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SP
		7	7		<1	-	<1	N	SPSM
SB-111	12/31/14		1		<1	-	<1	N	SP
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SPSM
		7	7		<1	-	<1	N	SPSM
SB-112	12/31/14		1		<1	-	<1	N	SP
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SP
		6.5	7		<1	-	<1	N	SP
SB-113	12/31/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SP
		5.5	6		<1	-	<1	N	SPSM
SB-114	12/31/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SPSM
		6	6		<1	-	<1	N	SPSM
SB-115	12/31/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SPSM
		7	7		<1	-	<1	N	SM
SB-116	12/31/14		1		<1	-	<1	N	SM
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SM
		7	7		<1	-	<1	N	SM
SB-117	12/31/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SPSM
			7		<1	-	<1	N	SPSM
			9		<1	-	<1	N	SPSM
		9.5	10		<1	-	<1	N	SPSM
SB-118	12/31/14		1		<1	-	<1	N	SPSM
			3		1	-	1	N	SPSM
			5		<1	-	<1	N	SPSM
		7	7		<1	-	<1	N	SPSM
SB-119	12/31/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SP
		7	7		<1	-	<1	N	SP

Table 2E

Summary of Soil Organic Vapor Analysis

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Pond 308

FPID No. 432100-1-22-01

GEC Project No. 3492E

Boring Data		Soil Sample OVA Data (FID)							
Boring No.	Date Conducted	Depth to Water (ft)	Sample Depth (ft)	FID	Total Reading	Filtered Reading	Net Reading	Odor	Soil Sample Description
SB-120	12/31/14		1		<1	-	<1	N	SP
			3		<1	-	<1	N	SP
			5		<1	-	<1	N	SP
		6	6		<1	-	<1	N	SP
SB-121	12/31/14		1		<1	-	<1	N	SM
			3		<1	-	<1	N	SPSM
			5		<1	-	<1	N	SM
		7	7		<1	-	<1	N	SM
SB-122	12/31/14		1		<1	-	<1	N	SPSM
			3		<1	-	<1	N	SC
			5		<1	-	<1	N	SM
		6.5	7		<1	-	<1	N	SM

Notes:

1. Soil Screened with a Thermo Electron Corporation OVA Model TVA-1000B and measured in parts per million (ppm).
2. SP = poorly graded fine sand, SM = silty sand, SC = clayey sand, CH = inorganic clay SPSM = fine sand with silt.
3. ft = feet.
4. FID = Flame Ionization Detector.
5. - = Filtered reading data not collected for total readings <10 ppm.
6. Net readings above 10 ppm indicate the potential presence of soil contamination.
7. GNE = Groundwater not encountered.

Tables 3A, 3B, 3C

Soil Analytical Laboratory Results

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Ponds 300, 300A, and 300B

FPID No. 432100-1-22-01

GEC Project No. 3492E

Sample Name	CS-23	CS-25	FAC 62-777 SCTL		
Sample Interval (ft bls)	0-2	0-2	RSCTL	ISCTL	LSCTL
Sample Date	12/23/2014	12/23/2014			
Isodrin	0.0021 I	0.016	***	***	***
Aldrin	***	***	0.06	0.3	0.2

Sample Name	CS-15	FAC 62-777 SCTL		
Sample Interval (ft bls)	0-2	RSCTL	ISCTL	LSCTL
Sample Date	12/19/2014			
Arsenic - Total	0.603 I	2.1	12	*

Sample Name	CS-20	FAC 62-777 SCTL		
Sample Interval (ft bls)	0-2	RSCTL	ISCTL	LSCTL
Sample Date	12/19/2014			
Chlordane (Tech)	0.72	---	---	---
Chlordane-alpha	0.22	---	---	---
Chlordane-gamma	0.19	---	---	---
Chlordane - Total	1.13	3	14	9.6

Notes:

1. All measurements are in mg/kg - milligrams per kilogram.
2. RSCTL - Soil Cleanup Target Level (SCTL) for residential land use.
3. ISCTL - SCTL for industrial/commercial land use.
4. LSCTL - SCTL for leachability based upon groundwater criteria.
5. FAC - Florida Administrative Code.
6. "U" - parameter not detected at the method detection limit shown.
7. TCLP - Toxic Characteristic Leachate Procedure.
8. "I" - analyte detected between the method detection limits and the practical quantitation limits.
9. "V" - Indicates that the analytes was detected in both the sample and associated method blank.
10. TPH - Total Petroleum Hydrocarbons.
11. ft bls - feet below land surface.
12. * - Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.
13. # - Must be converted into Benzo(a)pyrene Equivalents.
14. *** - Isodrin has no SCTLs. Aldrin is a closely related compound. Therefore, we used the SCTLs from Aldrin as a comparison/reference.

Tables 3D

Soil Analytical Laboratory Results

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Ponds 307 and 308

FPID No. 432100-1-22-01

GEC Project No. 3492E

Sample Name	SB-107	SB-109	SB-117	SB-122	FAC 62-777 SCTL		
Sample Interval (ft bls)	1.5	8.5	1.5	4.5	RSCTL	ISCTL	LSCTL
Sample Date	1/5/2015	1/5/2015	1/2/2015	1/2/2015			
Acetone	0.012 I	0.041	0.031	0.04	11,000	68,000	25
Arsenic	-	-	-	0.643 I	2	12	*
Barium	4.44	173	9.35	58.2	120	130,000	1,600
Chromium	0.426	10.3	0.671	6.04	210	470	38
Chrysene	0.012 I	-	-	0.017 I	#	#	77
Lead	0.293 I	11.8	0.759	6.75	40	400	*
Methylene Chloride	0.0040 V	0.0018 IV	0.0015 IV	0.0048 V	17	26	0.02
Selenium	-	2.29 I	-	1.69 I	440	11,000	5.2

Notes:

1. All measurements are in mg/kg - milligrams per kilogram.
2. RSCTL - Soil Cleanup Target Level (SCTL) for residential land use.
3. ISCTL - SCTL for industrial/commercial land use.
4. LSCTL - SCTL for leachability based upon groundwater criteria.
5. FAC - Florida Administrative Code.
6. "U" - parameter not detected at the method detection limit shown.
7. TCLP - Toxic Characteristic Leachate Procedure.
8. "I" - analyte detected between the method detection limits and the practical quantitation limits.
9. "V" - Indicates that the analytes was detected in both the sample and associated method blank.
10. TPH - Total Petroleum Hydrocarbons.
11. ft bls - feet below land surface.
12. * - Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.
13. # - Must be converted into Benzo(a)pyrene Equivalents.
14. *** - Isodrin has no SCTLs. Aldrin is a closely related compound. Therefore, we used the SCTLs from Aldrin as a comparison/reference.

Table 4

Groundwater Analytical Laboratory Results

I-4 PD&E Study Level 2 Contamination Assessment

Segment 3

Ponds 300, 300A, 300B, 307, and 308

FPID No. 432100-1-22-01

GEC Project No. 3492E

Sample Name	TMW-9	TMW-10	FAC 62-777
Screen Interval (ft bls)	13-8	9-4	GCTL
Sample Date	12/30/2014	1/2/2015	
Barium - Total	51.1	10.2	2,000.0

Notes:

1. All concentrations reported in µg/L (micrograms per liter).
2. FAC - Florida Administrative Code.
3. GCTL - Groundwater Cleanup Target Level.
4. ft bls - feet below land surface.
5. "I" - Analyte detected between the detection method limits and the practical quantitation limit.
6. "N" Presumptive evidence of presence of material.

APPENDIX A

Field Forms

APPENDIX A-1

Soil Boring Logs

BORING LOG

Boring/Well Number: SB-86	Permit Number:		FDEP Facility Identification Number:
Site Name: POND 300B	Borehole Start Date: 12/29/14 End Date: 12/29/14	Borehole Start Time: 1000 AM ☐ PM End Time: 1015 AM ☐ PM	
Environmental Contractor: GEC	Geologist's Name: R. McCormick		Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet):
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 15'	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Br. fi SAND w/ silt	SPSM	D	
								2				
					<1	-	<1	3	Br. fi SAND w/ silt	SPSM	D	
								4				
					<1	-	<1	5	Lt Br fi SAND	SP	D	
								6				
					<1	-	<1	7	Lt Br fi SAND	SP	D	
								8				
					<1	-	<1	9	Lt Br fi SAND	SP	D	
								10				
					<1	-	<1	11	Lt Br fi SAND	SP	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-86	Permit Number:		FDEP Facility Identification Number:
Site Name: POND	Borehole Start Date: 12/29/14 End Date: 12/29/14	Borehole Start Time: 1000 ☑ AM ☐ PM End Time: 1015 ☑ AM ☐ PM	
Environmental Contractor: GEC	Geologist's Name: R. McCormick		Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet):
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 15'	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	B- S. Fisano	SM	M	
								14		SM	W	
					<1	-	<1	15	B- S. Fisano			
								16				
								17				
								18				
								19				
								20				
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

Boring/Well Number: SB-87	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300B	Borehole Start Date: 12/29/14 End Date: 12/29/14	Borehole Start Time: 1025 ☑ AM ☐ PM End Time: 1040 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale

Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet):
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 15'	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	B. F sand w/ silt	SP SM	D	CS-26 0-2.0'
								2				
					<1	-	<1	3	Lt B f sand	SP	D	
								4				
					<1	-	<1	5	Lt B f sand	SP	D	
								6				
					<1	-	<1	7	Lt B Si f sand	SM	D	
								8				
					<1	-	<1	9	B Si f sand	SM	D	
								10				
					<1	-	<1	11	B. Si f sand	SM	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-87	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300 B	Borehole Start Date: 12/29/14 End Date: 12/29/14	Borehole Start Time: 1025 ☑ AM ☐ PM End Time: 1040 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 15'	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	B- Silty sand	SM	M	
								14				
					<1	-	<1	15	B- Silty sand	SM	W	
								16				
								17				
								18				
								19				
								20				
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-88	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 306B	Borehole Start Date: 12/29/14 End Date: 12/29/14	Borehole Start Time: 1045 ☑ AM ☐ PM End Time: 1058 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 15'	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	B. fsand w/silt	SPSM	D	
								2				
					<1	-	<1	3	Lgt B. fsand w/silt	SPSM	D	
								4				
					<1	-	<1	5	Lgt B. fsand	SP	D	
								6				
					<1	-	<1	7	Lgt B. Sifsand	SM	D	
								8				
					<1	-	<1	9	Lgt B. Sifsand	SM	D	
								10				
					<1	-	<1	11	Lgt B. Sifsand	SM	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

Boring/Well Number: SB-88	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300 B	Borehole Start Date: 12/29/14 End Date: 12/29/14	Borehole Start Time: 1045 ☑ AM ☐ PM End Time: 1058 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3" / Borehole Depth (feet):
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 15' / Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	Lt Br fiSAND	SM	M	TMW-8 screen 13.0-18.0'
								14				
					<1	-	<1	15	Lt Br fiSAND w/silt	SP-SM	W	
								16				
								17				
								18				
								19				
								20				
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-89	Permit Number:		FDEP Facility Identification Number:
Site Name: Pond 3008	Borehole Start Date: 12/29/14 End Date: 12/29/14	Borehole Start Time: 1108 ☑ AM ☐ PM End Time: 1115 ☑ AM ☐ PM	
Environmental Contractor: GEC	Geologist's Name: R. McCormick		Environmental Technician's Name: J. Govemale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet):
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 15'	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Dark Br fine sand w/silt	SPSM	D	GS-27 0-2.0'
								2				
					<1	-	<1	3	Br. fine sand w/silt	SPSM	D	
								4				
					<1	-	<1	5	Lgt Br fine sand	SP	D	
								6				
					<1	-	<1	7	Lgt Br clayey fine sand	SC	D	
								8				
					<1	-	<1	9	Lgt Br - S. Fine sand	SM	D	
								10				
					<1	-	<1	11	Lgt Br Silty sand	SM	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-89	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 300 B	Borehole Start Date: 12/29/14 End Date: 12/29/14	Borehole Start Time: 1058 ☑ AM ☐ PM End Time: 1115 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale

Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet):

Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 15'	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	Lgt Br SiFSAND	SM	M	
								14				
					<1	-	<1	15	Lgt Br SiFSAND	SM	W	
								16				
								17				
								18				
								19				
								20				
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB-90		

Site Name:	Borehole Start Date: 12/23/14	Borehole Start Time: 1055 ☑ AM ☐ PM
Pond 300	End Date: 12/23/14	End Time: 1115 ☑ AM ☐ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
GEC	B. McCormick	J. Govenale

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
GEC	N/A	3"	

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
HA	13.0		☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	B. f SAND w/ Silt	SP SM	D	RS-23 0-2.0
								2				
					<	-	<1	3	B. f SAND w/ Silt	SP SM	D	
								4				
					<1	-	<1	5	B. f SAND w/ Silt	SP SM	D	
								6				
					<1	-	<1	7	Lgt B. Si f SAND	SM	D	
								8				
					<1	-	<1	9	Lgt B. Si f SAND	SM	M	
								10				
					<1	-	<1	11	Lgt B. Si f SAND	SM	M	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB - 90		

Site Name:	Borehole Start Date: 12/9/14	Borehole Start Time: 1055 ☑ AM ☐ PM
Pond 300	End Date: 12/9/14	End Time: 1115 ☑ AM ☐ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
GEC	R. McCormick	J. Governale

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
GEC	N/A	3"	—

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
HA			☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	Lgt Br. Silt and	SM	S	
								14				
								15				
								16				
								17				
								18				
								19				
								20				
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

BORING LOG

Boring/Well Number: SB-91	Permit Number:		FDEP Facility Identification Number:
Site Name: Pond 300	Borehole Start Date: 12/22/14 End Date: 12/23/14	Borehole Start Time: 1025 ☑ AM ☐ PM End Time: 1040 ☑ AM ☐ PM	
Environmental Contractor: GEC	Geologist's Name: R. McCormick		Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet):
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 6.5'	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Br fsand w/silt	SM	D	
								2		SM	D	
					<1	-	<1	3	Br fsand w/silt			
								4				
					<1	-	<1	5	Lt Br silty fsand	SM	M	
								6				
					<1	-	<1	7	Lt Br silty fsand	SM	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

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Boring/Well Number: SB-92	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300	Borehole Start Date: 12/23/14 End Date: 12/23/14	Borehole Start Time: 930 ☑ AM ☐ PM End Time: 945 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 7'0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Br fsand w/silt	SSM	D	GS-24 0-2.0
								2				
					<1	-	<1	3	Br fsand w/silt	SSM	D	
								4				
					4	-	4	5	Br fsand w/silt	SSM	W	TMW-7 Screen
								6				
					1	-	1	7	Lgt Br Sifsand	SM	S	
								8				
					<1	-	<1	9	Lgt Br Sifsand	SM	S	
					<1	-	<1	10	Lgt Br Sifsand	SSM	S	
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SB-93	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300	Borehole Start Date: 12/23/14 End Date: 12/23/14	Borehole Start Time: 955 ☑ AM ☐ PM End Time: 1015 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: D. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 6.0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	B. fine sand w/silt	SP	D	
								2				
					<1	-	<1	3	B. fine sand w/silt	SP	D	
								4				
					<1	-	<1	5	Lt. Br. Silt sand	SM	W	
					<1	-	<1	6	B. fine sand w/silt	SP	S	
					<1	-	-	7				
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

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Boring/Well Number: SB-94	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300	Borehole Start Date: 12/22/14 End Date: 12/22/14	Borehole Start Time: 900 ☑ AM ☐ PM End Time: 918 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: D. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet):		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9.0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Br fi sand w/silt	SP-SM	D	
								2				
					<1	-	<1	3	Br fi sand w/silt	SP-SM	D	
								4				
					<1	-	<1	5	Br fi sand w/silt	SP-SM	M	
								6				
					<1	-	<1	7	Lgt Br Si fi sand			
								8		SM	M	
					<1	-	<1	9	Lgt Br Si fi sand	SM	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB- 95		

Site Name:	Borehole Start Date: 12/23/14	Borehole Start Time: 850 ☑ AM ☐ PM
Pond 300	End Date: 12/23/14	End Time: 845 ☑ AM ☐ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
GEC	R McCormick	J. Govenale

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
GEC	N/A	3"	

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
HA	9.0'		☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	R. fsand w/silt	sfsm	D	CS-25 0-2.0'
								2				
					<1	-	<1	3	R. fsand w/silt	sfsm	D	
								4				
					<1	-	<1	5	Lgt B. S.fsand	sm	D	
								6				
					<1	-	<1	7	Lgt B. S.fsand	sm	M	
								8				
					<1	-	<1	9	R. fsand w/silt	sfsm	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-96	Permit Number:	FDEP Facility Identification Number:
Site Name: 3004	Borehole Start Date: 12/22/14 End Date: 12/22/14	Borehole Start Time: 1245 ☐ AM ☑ PM End Time: 100 ☐ AM ☑ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Gouchenour
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet): 20.0'
Drilling Method(s): MC	Apparent Borehole DTW (in feet from soil moisture content): 6NE	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Br f SAND w/ silt	SP/SM	D	CS-J2, 0-2.0
								2				
					<1	-	<1	3	Br f SAND w/ silt	SP/SM	D	
								4				
					<1	-	<1	5	Orange clayey f SAND	SC	D	
								6				
					<1	-	<1	7	Orange clayey f SAND	SC	D	
								8				
					<1	-	<1	9	Lt Br S. f SAND	SM	D	
								10				
					<1	-	<1	11	Lt Br S. f SAND	SM	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB-96		
Site Name:	**Borehole Start Date:** 12/11/14 **End Date:** 12/11/14	**Borehole Start Time:** 1245 ☐ AM ☑ PM **End Time:** 100 ☐ AM ☑ PM
300 A		
Environmental Contractor:	**Geologist's Name:**	**Environmental Technician's Name:**
GEC	R. McCormick	J. Governale
Drilling Company:	**Pavement Thickness (inches):**	**Borehole Diameter (inches):**	**Borehole Depth (feet):**
GEC	N/A	3"	30.0'
Drilling Method(s):	**Apparent Borehole DTW (in feet from soil moisture content):**	**Measured Well DTW (in feet after water recharges in well):**	**OVA (list model and check type):**
MC	DNE		☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	Lt Br Silty Sand	SM	D	
								14				
					<1	-	<1	15	Lt Br Sand	SP	D	
								16				
					<1	-	<1	17	Br Sand w/ Silt	SM	D	
								18				
					<1	-	<1	19	Lt Br S. Sand	SM	D	
					<1	-	<1	20	Br Sand w/ Silt	SM	D	
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-97	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300A	Borehole Start Date: 12/22/14 End Date: 12/22/14	Borehole Start Time: 1203 ☐ AM ☑ PM End Time: 1215 ☐ AM ☑ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Govednik
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 10.0		
Drilling Method(s): MC	Apparent Borehole DTW (in feet from soil moisture content): GWE	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Brn Fisa, w/silt	SPSM	D	
								2				
					<1	-	<1	3	Brn Fisa, w/silt	SPSM	D	
								4				
					<1	-	<1	5	Orange Clayey Fisa,	SC	D	
								6				
					<1	-	<1	7	Orange Clayey Fisa,	SC	D	
								8				
					<1	-	<1	9	Orange Clayey Fisa,	SC	D	
								10				
					<1	-	<1	11	Orange Clayey Fisa,	SC	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB - 97		
Site Name: Pond 300A	**Borehole Start Date:** 12/29/14 **End Date:** 12/29/14	**Borehole Start Time:** 1203 ☐ AM ☑ PM **End Time:** 1215 ☐ AM ☑ PM
Environmental Contractor: GEC	**Geologist's Name:** R. McCormick	**Environmental Technician's Name:** J. Governale
Drilling Company: GEC	**Pavement Thickness (inches):** N/A	**Borehole Diameter (inches):** 3"
Borehole Depth (feet): 20.0		
Drilling Method(s): MC	**Apparent Borehole DTW (in feet from soil moisture content):** 6NE	**Measured Well DTW (in feet after water recharges in well):**
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	Orange Clayey Fisa,	SC	D	
								14				
					<1	-	<1	15	Lt Brn silty Fisa,	SM	D	
								16				
					<1	-	<1	17	Orange Clayey Fisa,	SC	D	
								18				
					<1	-	<1	19	Brn Fisa, w/silt	SM	D	
					1	-	1	20	Brn Fisa, w/silt	SM	D	
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

BORING LOG

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB-98		
Site Name: Pond 300A	**Borehole Start Date:** 12/22/14 **End Date:** 12/22/14	**Borehole Start Time:** 108 ☐ AM ☑ PM **End Time:** 120 ☐ AM ☑ PM
Environmental Contractor: GEC	**Geologist's Name:** R. McCormick	**Environmental Technician's Name:** J. Groenwate
Drilling Company: GEC	**Pavement Thickness (inches):** N/A	**Borehole Diameter (inches):** 3"
Borehole Depth (feet): 20.0		
Drilling Method(s): MC	**Apparent Borehole DTW (in feet from soil moisture content):** GWE	**Measured Well DTW (in feet after water recharges in well):**
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Brn Fisa, w/silt	SP/SM	D	
								2				
					<1	-	<1	3	Brn Fisa, w/silt	SP/SM	D	
								4				
					<1	-	<1	5	Orange Clayey Fisa,	SC	D	
								6				
					<1	-	<1	7	Orange Clayey Fisa,	SC	D	
								8				
					<1	-	<1	9	Orange Clayey	SC	D	
								10				
					<1	-	<1	11	Brn silty Fisa,	SM	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-98	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300A	Borehole Start Date: 12/22/14 End Date: 12/22/14	Borehole Start Time: 1108 ☐ AM ☑ PM End Time: 1120 ☐ AM ☑ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet): 20.0
Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content): GWE	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	Orange silty Fisa,	SM	D	
								14				
					<1	-	<1	15	Brn Fisa, w/silt	Sasm	D	
								16				
					<1	-	<1	17	Brn Fisa, w/silt	Sasm	D	
								18				
					<1	-	<1	19	Brn Fisa, w/silt	Sasm	D	
					<1	-	<1	20	Brn Fisa, w/silt	Sasm	D	
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB-99		

Site Name:	Borehole Start Date: 12/02/14	Borehole Start Time: 1130 ☑ AM ☐ PM
Pond 300A	End Date: 12/2/14	End Time: 1146 ☑ AM ☐ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
GEC	R. McCormick	J. Gavemale

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
GEC	N/A		20.0'

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
Truck Mount Macro Core	GWE	—	☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	Brn Fisa, w/silt	SPSM	D	CS-21 0-2.0
								2				
					<1	–	<1	3	Orange Clayey Fisa,	SC	D	
								4				
					1	–	1	5	Orange Clayey Fisa,	SC	D	
								6				
					1	–	1	7	Gray Fisa,	SP	D	
								8				
					<1	–	<1	9	Gray Fisa,	SP	D	
								10				
					<1	–	<1	11	Brn Fisa, w/silt	SPSM	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB-99		

Site Name:	Borehole Start Date: 12/4/14	Borehole Start Time: 1130 ☑ AM ☐ PM
Pond 300A	End Date: 12/4/14	End Time: 1147 ☑ AM ☐ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
GEC	R. McCormick	J. Governale

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
GEC	N/A	3"	20.0'

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
M.C.	GLE		☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	Brn Fisa, w/silt	SP-SM	D	
								14				
					<1	-	<1	15	Gray Fisa,	SP	D	
								16				
					<1	-	<1	17	Orange clayey Fisa,	SC	D	
								18				
					<1	-	<1	19	Orange clayey Fisa,	SC	D	
					<1	-	<1	20	Orange Clayey Fisa,	SC	D	
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB-100		

Site Name:	Borehole Start Date: 12/22/14	Borehole Start Time: 1225 ☐ AM ☑ PM
Pond 300A	End Date: 12/22/14	End Time: 1240 ☐ AM ☑ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
GEC	R McCormick	J Governale

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
GEC	N/A	3"	20.0'

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
MC	6'-8'		☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	TS: Fsand w/silt	SM	D	
								2				
					<1	-	<1	3	Light Br S. fsand	SM	D	
								4				
					<1	-	<1	5	Orange clayey Fsand	SC	D	
								6				
					<1	-	<1	7	Orange clayey fsand	SC	D	
								8				
					<1	-	<1	9	Orange clayey fsand	SC	D	
								10				
					<1	-	<1	11	Orange clayey fsand	SC	D	
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

BORING LOG

Boring/Well Number: SB-100	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 300A	Borehole Start Date: 12/12/14 End Date: 12/12/14	Borehole Start Time: 1225 ☐ AM ☑ PM End Time: 1240 ☐ AM ☑ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): MC	Apparent Borehole DTW (in feet from soil moisture content): 9'E	Measured Well DTW (in feet after water recharges in well):
		OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	13	Lgt Br S. fsand	SM	D	
								14				
					<1	-	<1	15	Br fsand w/Silt	SP/SM	D	
								16				
					<1	-	<1	17	Lgt Br fsand	SP	D	
								18				
					<1	-	<1	19	Lgt Br fsand	SP	D	
					<1	-	<1	20	Lgt Br fsand	SP	D	
								21				
								22				
								23				
								24				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-101	Permit Number:		FDEP Facility Identification Number:
Site Name: Pond 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 800 ☑ AM ☐ PM End Time: 823 ☑ AM ☐ PM	
Environmental Contractor: GEC	Geologist's Name: R. McCormick		Environmental Technician's Name: J. Gouvernale
Drilling Company: GEC	Pavement Thickness (inches): NM	Borehole Diameter (inches): 3"	Borehole Depth (feet):
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Br fi SAND w/ Silt	SP SM	D	
								2				
					<1	-	<1	3	Lgt Br S. fi SAND	SM	D	
								4				
					<1	-	<1	5	Lgt Br S. fi SAND	SM	M	
								6				
					<1	-	<1	7	Lgt Br Si fi SAND	SM	M	
								8				
					<1	-	<1	9	Lgt Br S. fi SAND	SM	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

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Boring/Well Number: SB-102	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 830 ☑ AM ☐ PM End Time: 845 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Giverneck
Drilling Company: GEC	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):
		OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	B. S.F. SAND	SM	D	
								2				
					<1	-	<1	3	Lgt B. S.F. SAND	SM	D	
								4				
					<1	-	<1	5	Lgt B. S.F. SAND	SM	M	
								6				
					<1	-	<1	7	Lgt B. S.F. SAND	SM	W	
								8				
					<1	-	<1	9	Lgt B. S.F. SAND	SM	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-103	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 900 ☑ AM ☐ PM End Time: 925 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):
		OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Lgt Br Si fi SAND	SM	D	
								2				
					<1	-	<1	3	Lgt Br Si fi SAND	SM	D	
								4				
					<1	-	<1	5	Lgt Br Si fi SAND	Sm	M	
								6				
					<1	-	<1	7	Lgt Br Si fi SAND	Sm	W	
								8				
					<1	-	<1	9	Lgt Br Si fi SAND	Sm	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

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Boring/Well Number: SB-104	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 930 ☑ AM ☐ PM End Time: 940 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet):		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Br. f. sand w/ silt	SPSM	D	
								2				
					<1	-	<1	3	Lgt Br- f. sand w/ silt	SPSM	D	
								4				
					<1	-	<1	5	Lgt Br- S. f. sand	SM	M	
								6				
					<1	-	<1	7	Lgt Br- S. f. sand	SM	W	
								8				
					<1	-	<1	9	Lgt Br S. f. sand	SM	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SB-105	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 945 ☑ AM ☐ PM End Time: 953 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. MCCormick	Environmental Technician's Name: J. Gowanak
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Lgt Br f. sand	SP	D	
								2				
					<1	-	<1	3	Lgt Br f. sand	SP	W	
								4				
					<1	-	<1	5	Lgt Br S. f. sand	SM	M	
								6				
					<1	-	<1	7	Lgt Br S. f. sand	SM	W	
								8				
					<1	-	<1	9	Lgt Br S. f. sand	SM	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

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Boring/Well Number: SB-106	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 1000 ☑ AM ☐ PM End Time: 1016 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):
		OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Lt Br f. sand w/silt	SP-SM	D	
								2				
					<1	-	<1	3	Lt Br f. sand w/silt	SP-SM	M	
								4				
					<1	-	<1	5	Lt Br C. f. sand	SM	M	
								6				
					<1	-	<1	7	Lt Br S. f. sand	SM	M	
								8				
					<1	-	<1	9	Lt Br S. f. sand	SM	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SB-107	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 1020 ☑ AM ☐ PM End Time: 1028 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):
		OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Lgt Br f. SAND w/ Silt	SPSM	D	SOIL sample @ 1.5'
								2				
					<1	-	<1	3	Lgt Br f. SAND	SP	D	
								4				
					<1	-	<1	5	Lgt Br f. SAND	SP	W	
								6				
					<1	-	<1	7	Lgt Br S. f. SAND	SM	M	
								8				
					<1	-	<1	9	Lgt Br S. f. SAND	SM	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

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Boring/Well Number: SB-108	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 1035 ☑ AM ☐ PM End Time: 1046 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):
		OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Lgt Br f. SAND w/ silt	SPSM	D	
								2				
					<1	-	<1	3	Lgt Br f. SAND	SP	W	
								4				
					<1	-	<1	5	Lgt Br S. f. SAND	SM	M	
								6				
					<1	-	<1	7	Lgt Br S. f. SAND	SM	M	
								8				
					<1	-	<1	9	Lgt Br S. f. SAND	SM	S	
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SB-109	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 307	Borehole Start Date: 12/30/14 End Date: 12/30/14	Borehole Start Time: 1055 ☑ AM ☐ PM End Time: 1110 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9'	Measured Well DTW (in feet after water recharges in well):
		OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Lgt Br f. sand	SP	D	
								2				
					<1	-	<1	3	Lgt Br f. sand	SP	D	
								4				
					<1	-	<1	5	Lgt Br Si. f. sand	SM	M	
								6				
					<1	-	<1	7	Lgt Br Si. f. sand	SM	M	
								8				
					<1	-	<1	9	Lgt Br Si. Gravel	SM	S	soil sample 8.5'
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-110	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 830 ☑ AM ☐ PM End Time: 845 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Giovanniello
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 7.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 7.0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Brn Fisa, w/silt	SP/SM	D	
								2				
					<1	-	<1	3	Gray Fisa,	SP	D	
								4				
					<1	-	<1	5	Gray Fisa	SP	M	
								6				
					<1	-	<1	7	Gray Fisa, w/silt	SP/SM	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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BORING LOG

Boring/Well Number: SB-111	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 850 ☑ AM ☐ PM End Time: 910 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Groverrate
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 7.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 7.0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	Gray Fisa,	SM	D	
								2				
					<1	–	<1	3	Gray, Fisa,	SP	D	
								4				
					<1	–	<1	5	Brn Fisa, w/silt	SM/SP	M	
								6				
					<1	–	<1	7	Brn Fisa, w/silt	SM/SP	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SB 112	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 308	Borehole Start Date: 12/30/14 End Date: 12/31/14	Borehole Start Time: 915 ☑ AM ☐ PM End Time: 925 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 7.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 6.5	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Lt Brn Fisa,	SP	D	
								2				
					<1	-	<1	3	Lt Brn Fisa,	SP	D	
								4				
					<1	-	<1	5	Lt Brn Fisa,	SP	M	
								6				
					<1	-	<1	7	Lt Brn Fisa	SP	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SB 113	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 938 ☑ AM ☐ PM End Time: 948 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 6.0'		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5.5'	Measured Well DTW (in feet after water recharges in well): 3"
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	Brn FiSa, w/ silt	SP/SM	D	
								2				
					<1	–	<1	3	Grey FiSa,	SP	D	
								4				
					<1	–	<1	5	Grey FiSa	SP	W	
					<1	–	<1	6	Brn FiSa, w/ silt	SP/SM	S	
								7				
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SB 114	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 955 ☑ AM ☐ PM End Time: 1015 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 6.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 6.0	Measured Well DTW (in feet after water recharges in well): 3"
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	Lt Brn Fisa, w/silt	SP	D	
								2				
					<1	–	<1	3	Lt Brn Fisa, w/silt	SP	M	
								4				
					<1	–	<1	5	Lt Brn Fisa, w/silt	SP	W	
					<1	–	<1	6	Gwy Fisa, w/silt	SP	S	
								7				
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SB 115	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 1025 ☑ AM ☐ PM End Time: 1040 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 7.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 7.0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	Brn Fisa, w/silt	SP/SM	D	
								2				
					<1	–	<1	3	Grey Fisa,	SP	D	
								4				
					<1	–	<1	5	Brn Fisa, w/silt	SP/SM	M	
								6				
					<1	–	<1	7	Brn silty Fisa,	SM	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB 116	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 1050 ☑ AM ☐ PM End Time: 1108 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: D. McCormick	Environmental Technician's Name: J. Grovenstein
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 7.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 7.0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	—	<1	1	5m silty Fisa,	SM	D	
								2				
					<1	—	<1	3	Gray Fisa,	SP	D	
								4				
					<1	—	<1	5	4 Bm silty Fisa	SM	M	
								6				
					<1	—	<1	7	Gray silty Fisa,	SM	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB 117	Permit Number:	FDEP Facility Identification Number:
Site Name: Pond 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 1115 ☑ AM ☐ PM End Time: 1130 ☑ AM ☐ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 10.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 9.5	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Brn Fisa, w/silt	SP/SM	D	soil sample 1115-2.0
								2				
					<1	-	<1	3	Brn Fisa, w/silt	SP/SM	D	
								4				
					<1	-	<1	5	Brn Fisa, w/silt	SP/SM	D	soil sample 1115-6.0
								6				
					<1	-	<1	7	Brn Fisa, w/silt	SP/SM	D	
								8				
					<1	-	<1	9	Brn Fisa, w/silty	SP/SM	M	
					<1	-	<1	10	Brn Fisa, w/silty	SP/SM	S	
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-118	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 308	Borehole Start Date: 12/31/14 Borehole Start Time: 1158 ☑ AM ☐ PM End Date: 12/31/14 End Time: 1150 ☑ AM ☐ PM	
Environmental Contractor: GEC	Geologist's Name: D. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet): 7.0
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 7.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	Brn Fisa, w/sil't	SP/SM	D	
								2				
					1	–	1	3	Brn Fisa, w/sil't	SP/SM	D	
								4				
					<1	–	<1	5	Brn Fisa, w/sil't	SP/SM	M	
								6				
					<1	–	<1	7	Brn Fisa, w/sil't	SP/SM	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-119	Permit Number:		FDEP Facility Identification Number:
Site Name: Pond 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 1200 ☐ AM ☑ PM End Time: 1218 ☐ AM ☑ PM	
Environmental Contractor: GEC	Geologist's Name: R. McCormick		Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"	Borehole Depth (feet): 7.0
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 7.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☑ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	Brn FiSa, w/ silt	SP	D	
								2				
					<1	–	<1	3	Grey FiSa,	SP	D	
								4				
					<1	–	<1	5	Grey FiSa,	SP	M	
								6				
					<1	–	<1	7	Grey FiSa	SP	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SB 120	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 1225 ☐ AM ☑ PM End Time: 1240 ☐ AM ☑ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Gravenmade
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 6.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 6.0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	Gray Fisa	SP	D	
								2				
					<1	–	<1	3	Gray Fisa,	SP	D	
								4				
					<1	–	<1	5	Gray Fisa,	SP	W	
					<1	–	<1	6	Lt Brn Fisa,	SP	S	
								7				
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SB 121	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 308	Borehole Start Date: 12/31/14 Borehole Start Time: 1250 ☐ AM ☑ PM End Date: 12/31/14 End Time: 105 ☐ AM ☑ PM	
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J Gourmet
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 7.0	Measured Well DTW (in feet after water recharges in well):
Borehole Depth (feet): 7.0	OVA (list model and check type): ☑ FID ☐ PID	

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	–	<1	1	8m silty f/sa,		D	
								2				
					<1	–	<1	3	8m f/sa, wy/silt		D	
								4				
					<1	–	<1	5	8m silty f/sa,		M	
								6				
					<1	–	<1	7	8m silty f/sa,		S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB 122	Permit Number:	FDEP Facility Identification Number:
Site Name: POND 308	Borehole Start Date: 12/31/14 End Date: 12/31/14	Borehole Start Time: 115 ☐ AM ☑ PM End Time: 125 ☐ AM ☑ PM
Environmental Contractor: GEC	Geologist's Name: R. McCormick	Environmental Technician's Name: J. Governale
Drilling Company: GEC	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3"
Borehole Depth (feet): 10		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 4.5	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☑ FID ☐ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☑ Spread ☑ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	PID	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
					<1	-	<1	1	Brn Fisa, w/silt	SP/SM	D	
								2				
					<1	-	<1	3	Gray Clayey Fisa,	SC	M	
								4				soil sample 4.0-4.5
					<1	-	<1	5	Gray silty Fisa,	SM	M	TMW-10 screen, 4.0-9.0
								6				
					<1	-	<1	7	Gray silty Fisa,	SM	S	
								8				
								9				
								10				
								11				
								12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

APPENDIX A-2

Equipment Calibration Logs

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) TVA-1000 **INSTRUMENT #** 0726424034

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☑ OTHER OVA

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 95 PPM LTL262-RR-CAL

Standard B _____

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/10/14	0800	A	95PPM	96.13		NO	Init	JWG
12/10/14	1700	A	95PPM	95.74		NO	Cont	JWG
12/11/14	0803	A	95PPM	94.7		NO	Cont	JWG
12/11/14	12:00	A	95PPM	95.93		NO	Cont	JWG
12/12/14	1245	A	95PPM	96.13		NO	Cont	JWG
12/12/14	1608	A	95ppm	95.63		NO	Cont	JWG
12/15/14	1430	A	95PPM	95.71		NO	Cont	JWG
12/15/14	1604	A	95PPM	96.01		NO	Cont	JWG
12/16/14	1606	A	95ppm	94.1		NO	Cont	JWG
12/16/14	1700	A	95ppm	96.0		NO	Cont	JWG
12/17/14	1500	A	95ppm	97.0		NO	Cont	JWG
12/17/14	1558	A	95ppm	96.2		N	Cont	JWG
12/18/14	1300	A	95ppm	96.4		NO	Cont	JWG
12/18/14	1417	A	95ppm	97.0		NO	Cont	JWG
12/22/14	1408	A	95ppm	95.02		NO	Cont	JWG
12/22/14	1408	A	95ppm	95.68		NO	Cont	JWG

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) TVA-1000 **INSTRUMENT #** 072642403Y

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL CI ☐ DO ☑ OTHER OVA

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 95 PPM LTL262-RR-CM

Standard B

Standard C

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/23/14	1008	A	95PPM	95.03		No	Cont	JWG
12/23/14	1420	A	95PPM	96.30		No	Cont	JWG
12/29/14	1150	A	95PPM	97.13		No	Cont	JWG
12/29/14	1402	A	95PPM	94.91		No	Cont	JWG
12/30/14	1005	A	95ppm	96.40		no	Cont	JWG
12/30/14	11:00	A	95ppm	94.00		no	Cont	JWG

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) Oakton T-100 **INSTRUMENT #** 452216

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP
☑ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 0.02

Standard B 20

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/12/14	0755	A	0.02	0.00		NO	Init	JWG
12/12/14	0755	B	20.0	19.90		Yes	Init	JWG
12/12/14	1640	A	0.02	0.01		No	Cont	JWG
12/12/14	1640	B	20.0	19.92		No	Cont	JWG
12/15/14	1030	A	0.02	0.01		No	Cont	JWG
12/15/14	1030	B	20.0	19.80		No	Cont	JWG
12/15/14	1100	A	0.02	0.00		No	Cont	JWG
12/15/14	1100	B	20.0	19.94		No	Cont	JWG
12/16/14	1030	A	0.02	0.01		No	Cont	JWG
12/16/14	1030	B	20.0	20.7		No	Cont	JWG
12/16/14	1140	A	0.02	0.00		No	Cont	JWG
12/16/14	1140	B	20.0	19.90		No	Cont	JWG
12/18/14	1519	A	0.02	0.01		no	Cont	JWG
12/18/14	1519	B	20.0	20.02		no	Cont	JWG
12/18/14	1700	A	0.02	0.00		no	Cont	JWG
12/18/14	1700	B	20.0	19.89		no	Cont	JWG

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) Oakton T-100 **INSTRUMENT #** 452216

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☑ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 0.02

Standard B 20.0

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/19/14	0931	A	0.02	0.00		NO	Cont	JWG
12/19/14	0931	B	20.0	20.02		NO	Cont	JWG
12/19/14	1433	A	0.02	0.01		NO	Cont	JWG
12/19/14	1433	B	20.0	19.96		NO	Cont	JWG
12/23/14	1005	A	0.02	0.01		NO	Cont	JWG
12/23/14	1005	B	20.0	21.0		NO	Cont	JWG
12/23/14	1415	A	0.02	0.02		NO	Cont	JWG
12/23/14	1415	B	20.0	19.90		NO	Cont	JWG
12/29/14	1205	A	0.02	0.00		NO	Cont	JWG
12/29/14	1205	B	20.0	20.04		NO	Cont	JWG
12/30/14	1130	A	0.02	0.01		NO	Cont	JWG
12/30/14	1130	B	20.0	19.86		NO	Cont	JWG
12/30/14	1430	A	0.02	0.00		NO	Cont	JWG
12/30/14	1430	B	20.0	20.22		NO	Cont	JWG
1/2/15	0730	A	0.02	0.01		NO	Cont	JWG
1/2/15	0730	B	20.0	19.90		NO	Cont	JWG
1/2/15	1100	A	0.02	0.02		NO	Cont	JWG
1/2/15	1100	B	20.0	21.0		NO	Cont	JWG

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI 556 **INSTRUMENT #** 05423534

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☑ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A pH 4.01 1/20/16
Standard B pH 7.00 12/20/15
Standard C pH 10.01 11/20/15

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/11/14	0810	A	4.01	3.99		yes	Init	JWG
12/11/14	0810	B	7.00	7.10		yes	Init	JWG
12/11/14	0810	C	10.01	9.99		yes	Init	JWG
12/12/14	1603	A	4.01	4.00		yes	Cont	JWG
12/12/14	1603	B	7.00	7.06		yes	Cont	JWG
12/12/14	1603	C	10.01	9.97		yes	Cont	JWG
12/15/14	1030	A	4.01	4.03			Cont	JWG
12/15/14	1030	B	7.00	7.52			Cont	JWG
12/15/14	1030	C	10.01	10.51			Cont	JWG
12/15/14	1200	A	4.01	4.83			Cont	JWG
12/15/14	1200	B	7.00	7.33			cont	JWG
12/15/14	1200	C	10.01	10.04			Cont	JWG
12/16/14	1115	A	4.01	4.83			Cont	JWG
12/16/14	1115	B	7.00	7.01			Cont	JWG
12/16/14	1115	C	10.01	10.03			cont	JWG
12/18/14	1455	A	4.01	4.85			Cont	JWG
12/18/14	1455	B	7.00	7.28			Cont	JWG
12/18/14	1455	C	10.01	10.24			Cont	JWG
12/18/14	1703	A	4.01	4.09			Cont	JWG
12/18/14	1703	B	7.00	7.44			Cont	JWG
12/18/14	1703	C	10.01	9.79			Cont	JWG

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI 556 **INSTRUMENT #** 05H0853AH

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☑ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A PH 4.01 1/20/16

Standard B PH 7.00 12/20/15

Standard C PH 10.01 11/20/15

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/19/14	0938	A	4.01	4.00		NO	Cont	JWG
12/19/14	0938	B	7.00	7.01		NO	Cont	JWG
12/19/14	0938	C	10.01	10.00		NO	Cont	JWG
12/19/14	1443	A	4.01	4.02		NO	Cont	JWG
12/19/14	1443	B	7.00	7.00		NO	Cont	JWG
12/19/14	1443	C	10.01	10.00		NO	Cont	JWG
12/23/14	1015	A	4.01	4.48		NO	Cont	JWG
12/23/14	1015	B	7.00	7.00		No	Cont	JWG
12/23/14	1015	C	10.01	10.09		No	Cont	JWG
12/23/14	1430	A	4.01	4.01		No	Cont	JWG
12/23/14	1430	B	7.00	7.12		No	Cont	JWG
12/23/14	1430	C	10.01	9.97		No	Cont	JWG
12/29/14	1205	A	4.01	4.01		No	Cont	JWG
12/29/14	1205	B	7.00	7.00		No	Cont	JWG
12/29/14	1205	C	10.01	10.01		No	Cont	JWG
12/30/14	1105	A	4.01	4.13		NO	Cont	JWG
12/30/14	1105	B	7.00	7.16		NO	Cont	JWG
12/30/14	1105	C	10.01	10.18		NO	Cont	JWG
12/30/14	1435	A	4.01	4.00		no	cont	JWG
12/30/14	1435	B	7.00	7.03		NO	Cont	JWG
12/30/14	1435	C	10.01	10.98		NO	cont	JWG
1/2/15	0720	A	4.01	4.01		NO	Cont	JWG
1/2/15	0720	B	7.00	7.02		NO	Cont	JWG
1/2/15	0720	C	10.01	10.01		NO	Cont	JWG
1/2/15	1105	A	4.01	4.01		NO	cont	JWG
1/2/15	1105	B	7.00	7.00		NO	cont	JWG
1/2/15	1105	C	10.01	10.01		NO	Cont	JWG

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI 55C **INSTRUMENT #** 05H2353AH

PARAMETER: *[check only one]*

☐ TEMPERATURE ☑ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 84

Standard B 1500

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/19/14	0945	A	84	83.0		no	Cont	JWG
12/19/14	0945	B	1500	1501		no	Cont	JWG
12/19/14	1500	A	84	84		no	Cont	JWG
12/19/14	1500	B	1500	1500		no	Cont	JWG
12/23/14	1020	A	84	84		no	Cont	JWG
12/23/14	1020	B	1500	1500		no	Cont	JWG
12/23/14	1440	A	84	84		no	Cont	JWG
12/23/14	1440	B	1500	1500		no	Cont	JWG
12/29/14	1013	A	84	84		no	Cont	JWG
12/29/14	1013	B	1500	1500		no	Cont	JWG
12/30/14	1140	A	84	84		no	Cont	JWG
12/30/14	1140	B	1500	1503		no	Cont	JWG
12/30/14	1440	A	84	84		no	Cont	JWG
12/30/14	1440	B	1500	1500		no	Cont	JWG
1/2/15	0715	A	84	84		no	Cont	JWG
1/2/15	0715	B	1500	1500		no	Cont	JWG
1/2/15	1135	A	84	84		no	Cont	JWG
1/2/15	1135	B	1500	1500		no	Cont	JWG

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI 556 **INSTRUMENT #** 05H2353 AH

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☒ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 100.0 %

Standard B _____

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/11/14	0905	A	100.0	100.5		yes	Init	HT
12/12/14	1620	A	100.0	100.1		"	Cont	JWG
12/15/14	1010	A	100.0	99.9		no	Cont	JWG
12/15/14	1408	A	100.00	100.7		no	Cont	JWG
12/16/14	1205	A	100.00	100.5		no	Cont	JWG
12/16/14	1638	A	100.0	99.8		no	Cont	JWG
12/18/14	0915	A	100	100.0		no	Cont	JWG
12/18/14	1306	A	100	100.6		no	Cont	JWG
12/19/14	1330	A	100	100.1		no	Cont	JWG
12/19/14	1520	A	100	100.0		no	Cont	JWG
12/23/14	1118	A	100	99.1		no	Cont	JWG
12/23/14	1430	A	100	100.0		no	Cont	JWG
12/29/14	0915	A	100	100.0		no	Cont	JWG
12/29/14	1400	A	100	100.0		no	Cont	JWG
12/30/14	1130	A	100	100.0		no	Cont	JWG
12/30/14	1440	A	100	100.0		no	Cont	JWG

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI 556 **INSTRUMENT #** 05H2353 A H

PARAMETER: *[check only one]*

☐ TEMPERATURE ☑ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 84

Standard B 1500

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/12/14	0750	A	84	84		yes	Init	JWG
12/12/14	0750	B	1500	1502		yes	Init	JWG
12/12/14	1210	A	84	83.0		no	Cont	JWG
12/12/14	1210	B	1500	1501		no	Cont	JWG
	1210							
12/15/14	1400	A	84	84		no	Cont	JWG
12/15/14	1420	B	1500	1503		no	Cont	JWG
12/16/14	1609	A	84	83.0		no	Cont	JWG
12/15/14	1609	B	1500	1502		no	Cont	JWG
12/16/14	1600	A	84	84		no	Cont	JWG
12/16/14	1600	B	1500	1501		no	Cont	JWG
12/16/14	1705	A	84	83.0		no	Cont	JWG
12/16/14	1705	B	1500	1500		no	Cont	JWG
12/18/14	1515	A	84	83.0		no	Cont	JWG
12/18/14	1515	B	1500	1501		no	Cont	JWG
12/18/14	1655	A	84	84		no	Cont	JWG
12/18/14	1655	B	1500	1500		no	Cont	JWG

APPENDIX A-3

Groundwater Sampling Logs and Well Construction Detail

Form FD 9000-24

GROUNDWATER SAMPLING LOG

Riser 0.0

SITE NAME: Pond 300	SITE LOCATION: SR-400	
WELL NO: TMW-7	SAMPLE ID: TMW-7	DATE: 12/23/14

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 5 feet to 10 feet	STATIC DEPTH TO WATER (feet): 6.5	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (10 feet – 6.5 feet) X 0.04 gallons/foot = 0.14 gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.5	PURGING INITIATED AT: 1215	PURGING ENDED AT: 1350	TOTAL VOLUME PURGED (gallons): 3.75

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1320	.25	.25	.05	7.4	5.64	22.23	31	18.6	33.3	Cloudy	None
1325	.25	.50	.05	7.4	5.71	22.18	31	18.5	26.6	Cloudy	None
1330	.25	.75	.05	7.4	5.53	22.30	31	18.6	29.1	Clo	None
1335	.25	1.00	.05	7.4	5.50	22.17	31	18.2	22.3	Clear	None
1340	.25	1.25	.05	7.4	5.47	22.23	31	18.5	19.97	Clear	None
1345	.25	1.50	.05	7.4	5.56	22.20	31	18.6	19.70	Clear	None
1350	.25	1.75	.05	7.4	5.48	22.07	31	18.9	18.67	Clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jerry W. Govemale	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1350	SAMPLING ENDED AT: 73
PUMP OR TUBING DEPTH IN WELL (feet): 9.5	TUBING MATERIAL CODE: PE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
TMW-7	1	AG	250ML	none	none	5.48	8081B	APP	125APM
TMW-7	1	A	250ML	none	none	5.48	8151A	APP	125 APM

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Riser 2.0

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Pond 300B		SITE LOCATION: I-4 SR-400	
WELL NO: TMW-8	SAMPLE ID: TMW-8		DATE: 12/29/14

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches): 3/8"	WELL SCREEN INTERVAL DEPTH: 13 feet to 18 feet	STATIC DEPTH TO WATER (feet): 14.25	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (18 feet – 14.25 feet) X 0.04 gallons/foot = .15 gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
16.5	16.5	1400	1415	1

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1400	.25	.25	.05	15.2	6.80	23.56	318	22.8	23.1	Clear	none
1405	.25	.50	.05	15.2	6.64	23.59	316	19.2	13.2	Clear	none
1410	.25	.75	.05	15.2	6.58	23.64	315	18.4	1.08	Clear	none
1415	.25	1.00	.05	15.2	6.57	23.65	315	18.3	0.75	Clear	none

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jerry W. Gowanale	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1415	SAMPLING ENDED AT: 1420
PUMP OR TUBING DEPTH IN WELL (feet): 20.0	TUBING MATERIAL CODE: PE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
TMW-8	1	AG	250ml	none	none	6.57	8081A	APP	.05 GPM
TMW-8	1	AG	250ml	none	none	6.57	8151A	APP	.05 GPM

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Riser 2.0'

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: Pond 307	SITE LOCATION: SR-400
WELL NO: TMW-9	SAMPLE ID: TMW-9 / SB-105 DATE: 12/30/14

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 8 feet to 13 feet	STATIC DEPTH TO WATER (feet): 9.6	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (13.0 feet – 9.6 feet) X 0.04 gallons/foot = .14 gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 11.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11.0	PURGING INITIATED AT: 1110	PURGING ENDED AT: 1240	TOTAL VOLUME PURGED (gallons): 9.5

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1220	.25	.25	.05	9.6	7.00	22.84	767	19.7	16.5	Clear	none
1225	.25	.50	.05	9.6	5.29	22.92	152	18.9	14.7	Clear	none
1230	.25	.75	.05	9.6	4.87	23.02	150	18.8	9.92	Clear	None
1235	.25	1.0	.05	9.6	4.85	23.03	149	18.5	8.20	Clear	none
1240	.25	1.2	.05	9.6	4.81	23.01	150	18.1	6.85	Clear	none

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jerry W. Governale	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1240	SAMPLING ENDED AT: 1255
PUMP OR TUBING DEPTH IN WELL (feet): 15.0'	TUBING MATERIAL CODE: PE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: _____ μm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
TMW-9	2	AG	1L	H2SO4	Lab	<2	FloPro	APP	0.05gpm
TMW-9	1	AG	1L	none	None	4.81	8270D TICs 8270D PAH SIM 8310D 8082A	APP	0.05gpm
TMW-9	1	PE	250mL	HNO3	Lab	<2	Cd Ba As Ag Se Pb Hg Cr	APP	0.05gpm
TMW-9	1	AG	250mL	None	None	4.81	8081B	APP	0.05gpm
TMW-9	1	AG	250mL	none	none	4.81	8270D PAH SIM 8082A	APP	0.05gpm
TMW-9	3	CG	40mL	HCL	Lab	<2	8260 TICs 8260B	APP	0.05gpm

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

SB-122

Form FD 9000-24
GROUNDWATER SAMPLING LOG

1.0 Riser

SITE NAME: Pond-308		SITE LOCATION: SR-400	
WELL NO: TMW-10	SAMPLE ID: TMW-10 / SB-122		DATE: 1/2/14

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 4 feet to 9 feet	STATIC DEPTH TO WATER (feet): 5.0	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (9.0 feet – 5.0 feet) X 0.04 gallons/foot = .16 gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.5	PURGING INITIATED AT: 0850	PURGING ENDED AT: 0905	TOTAL VOLUME PURGED (gallons): 1.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0850	.125	.125	.05	6.0	6.44	19.11	104	7.0	22.7	Clear	none
0855	.125	.50	.05	6.0	5.14	19.23	101	8.9	12.99	Clear	none
0900	.125	.75	.05	6.0	5.00	19.35	100	9.9	8.32	Clear	none
905	.125	1.00	.05	6.0	4.66	19.48	103	7.5	5.77	Clear	none

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jerry W. Governale	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 0905	SAMPLING ENDED AT: 0920
PUMP OR TUBING DEPTH IN WELL (feet): 10.0	TUBING MATERIAL CODE: PE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
TMW-10	2	AG	1L	H2SO4	Lab	<2	FloPro	APP	.05gpm
TMW-10	1	AG	1L	none	none	4.66	8270D TICS 8270D PAH SIM 8270D 8082A	APP	.05gpm
TMW-10	1	PE	250ml	HNO3	Lab	<2	Cd Ba As Ag Se Pb Hg Cr	APP	.05gpm
TMW-10	1	AG	250ml	none	none	4.66	8081B	APP	.05gpm
TMW-10	1	AG	250ml	none	none	4.66	8270D PAH SIM 8082A	APP	.05gpm
TMW-10	3	CG	40ml	HCL	Lab	<2	8260B	APP	.05gpm

REMARKS:

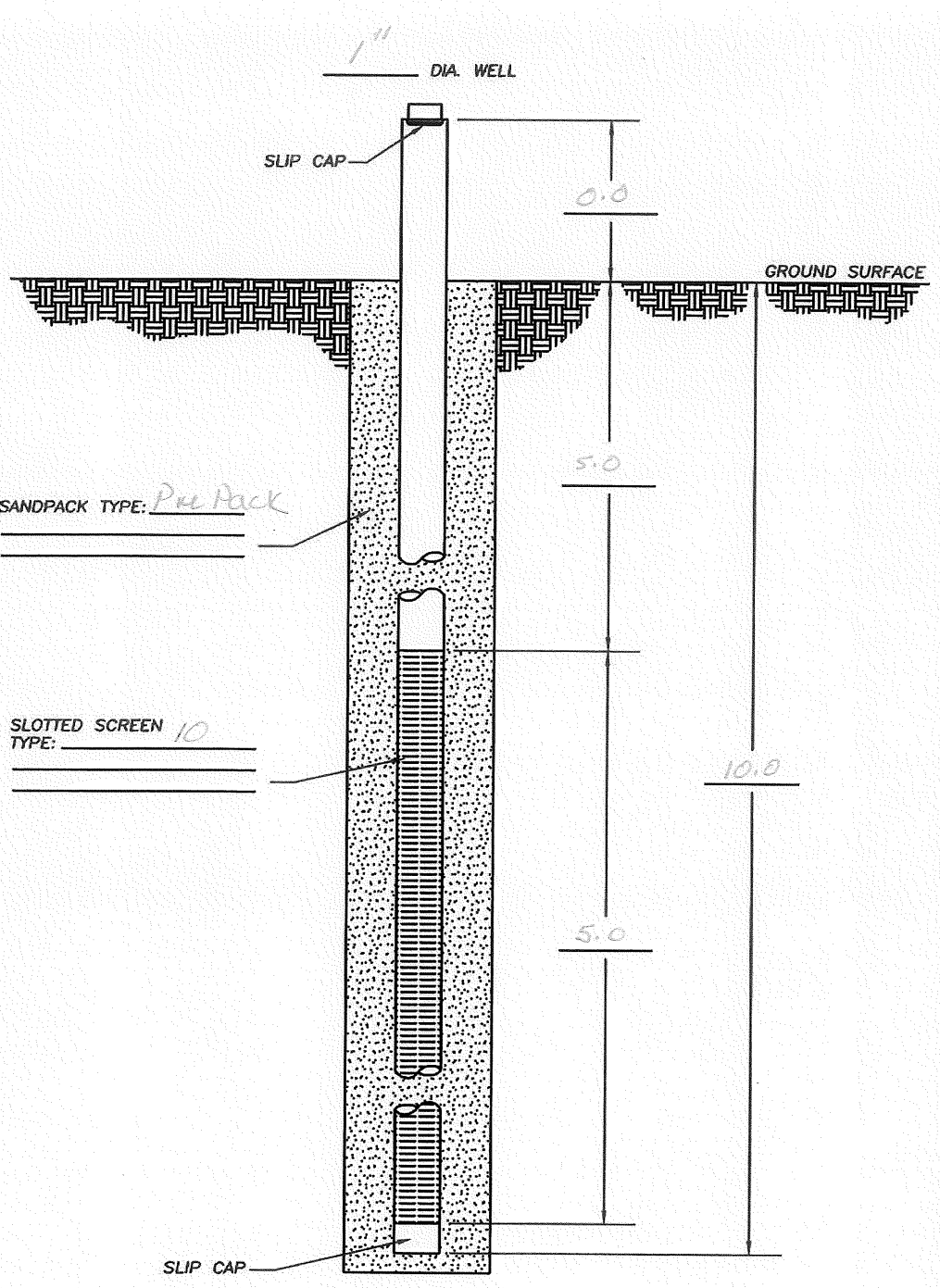
MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

waste oil group



INSTALLATION REPORT

INSTALLATION DATE 12/23/14 INSTALLED BY JWG/DBH

DEPTH TO GROUNDWATER 6.5' G.S.

INSTALLATION METHOD HA

Geotechnical and Environmental Consultants, Inc.
1230 E. HILLCREST ST.
ORLANDO, FLORIDA 32803
(407) 898-1818
FAX (407) 898-1897
COA NO. 00005882

PROJECT NO.:	3442C
DATE:	
SENIOR PROFESSIONAL: P.E. NO.	
PROJECT PROFESSIONAL: P.E. NO.	
DRAWN BY:	
REVISION:	

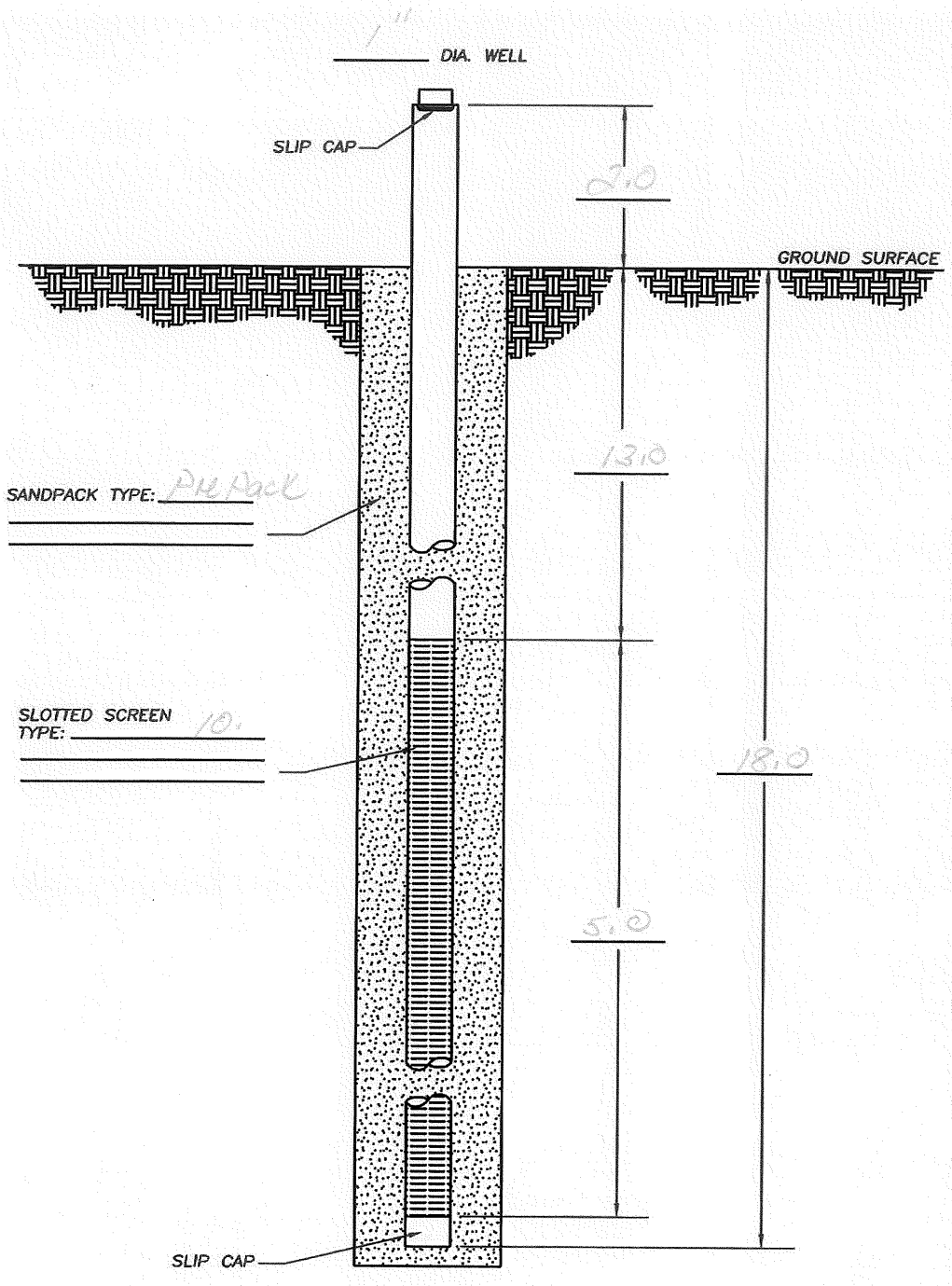
TEMPORARY MONITORING WELL NO. 7

SB-92
Pond 300

WELL CONSTRUCTION DETAIL

FIGURE

J:\DATA\FORMS\WELL DETAIL 2.dwg, 6/6/2008 7:50:52 AM, 1:1



INSTALLATION REPORT

INSTALLATION DATE 12/29/14 INSTALLED BY JWG/DBH

DEPTH TO GROUNDWATER 14.3 G.S.

INSTALLATION METHOD HA

Geotechnical and Environmental Consultants, Inc.
1230 E. HILLCREST ST.
ORLANDO, FLORIDA 32803
(407) 898-1818
FAX (407) 898-1897
COA NO. 00005882

PROJECT NO.: 3492E

DATE:

SENIOR PROFESSIONAL:
P.E. NO.

PROJECT PROFESSIONAL:
P.E. NO.

DRAWN BY:

REVISION:

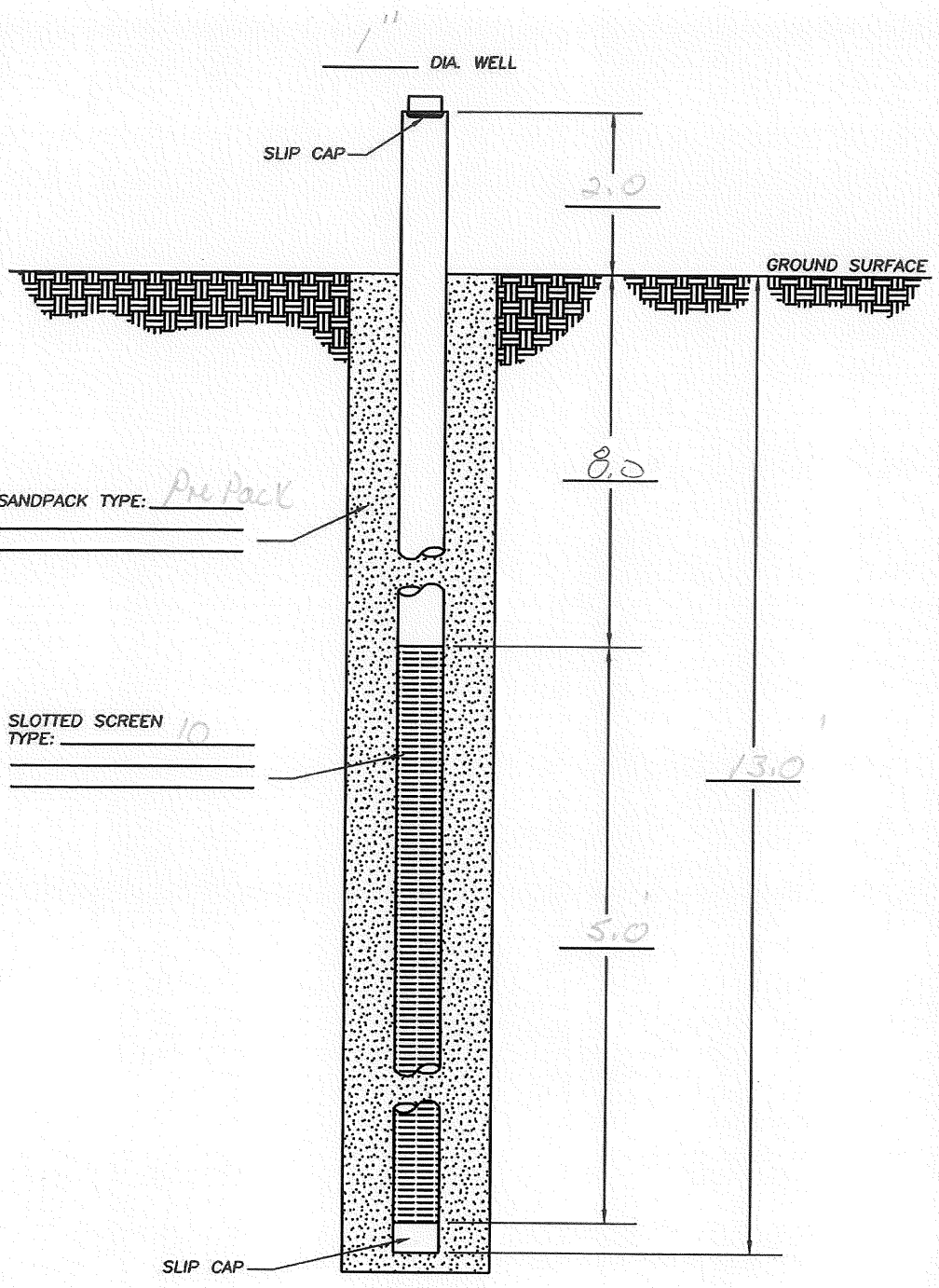
TEMPORARY MONITORING WELL NO. 8

SR-88
Pond 300B

WELL CONSTRUCTION DETAIL

FIGURE

J:\DATA\FORMS\WELL DETAIL 2.dwg, 6/6/2008 7:50:52 AM, 1:1



INSTALLATION REPORT

INSTALLATION DATE 12/30/14 INSTALLED BY JWC/WRH

DEPTH TO GROUNDWATER 9.2 G.S.

INSTALLATION METHOD HA

Geotechnical and Environmental Consultants, Inc.
1230 E. HILLCREST ST.
ORLANDO, FLORIDA 32803
(407) 898-1818
FAX (407) 898-1897
COA NO. 00005882

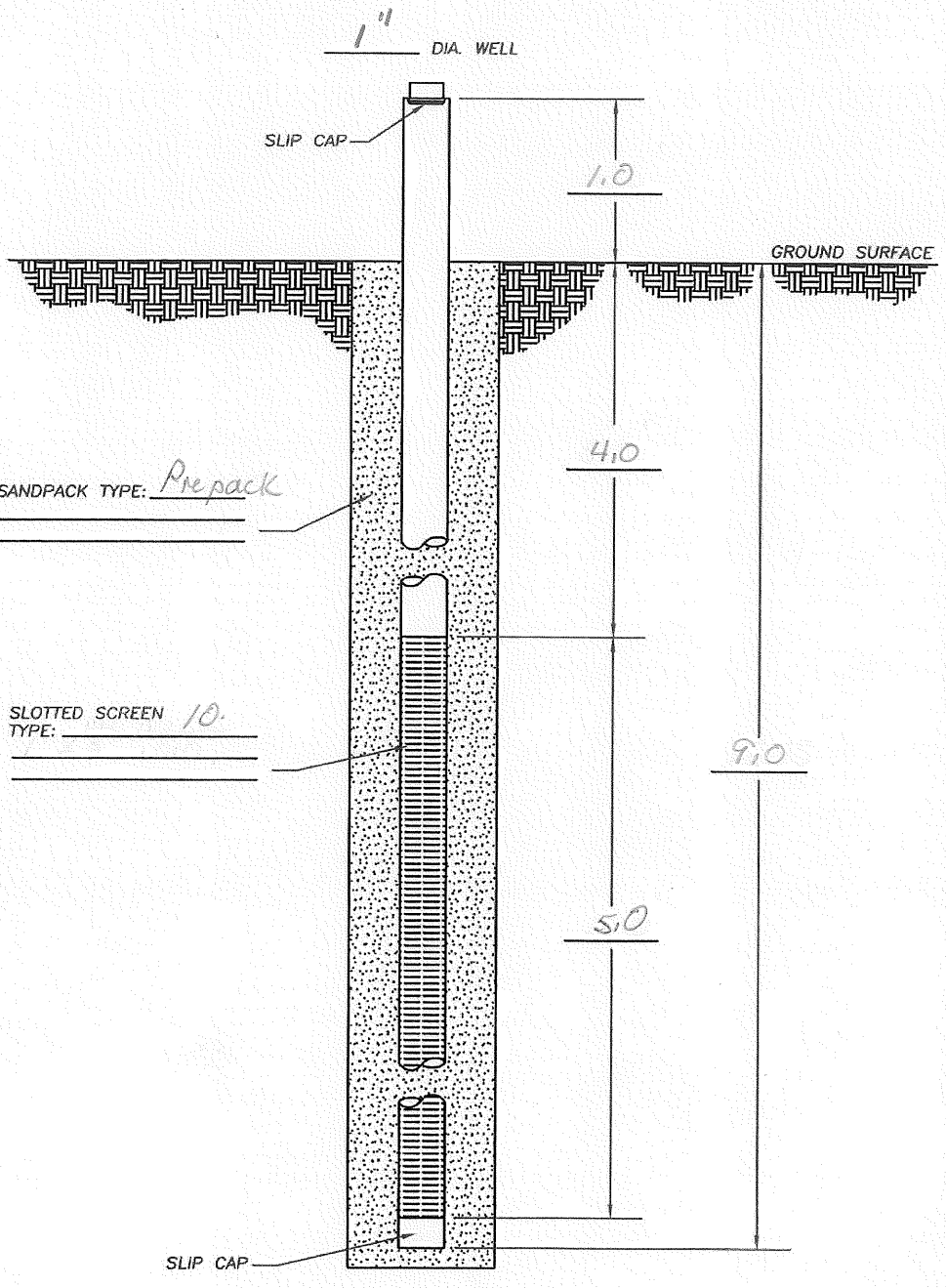
PROJECT NO.:	3492E
DATE:	
SENIOR PROFESSIONAL: P.E. NO.	
PROJECT PROFESSIONAL: P.E. NO.	
DRAWN BY:	
REVISION:	

TEMPORARY MONITORING WELL NO. TMW-9
SB-105
Pond 307

WELL CONSTRUCTION DETAIL

FIGURE

J:\DATA\FORMS\WELL DETAIL 2.dwg, 6/6/2008 7:50:52 AM, 1:1



INSTALLATION REPORT

INSTALLATION DATE 12/30/14 INSTALLED BY Jerry W. Governale

DEPTH TO GROUNDWATER 5.0 G.S.

INSTALLATION METHOD Hand Auger

GEC
Geotechnical and Environmental Consultants, Inc.
1230 E. HILLCREST ST.
ORLANDO, FLORIDA 32803
(407) 898-1818
FAX (407) 898-1897
COA NO. 00005882

PROJECT NO.: 3492E

DATE:

SENIOR PROFESSIONAL: P.E. NO.

PROJECT PROFESSIONAL: P.E. NO.

DRAWN BY:

REVISION:

TEMPORARY MONITORING WELL NO. TMW-10

SB-122
Pond 308

WELL CONSTRUCTION DETAIL

FIGURE

J:\DATA\FORMS\WELL DETAIL 2.dwg, 6/6/2008 7:50:52 AM, 1:1

APPENDIX B

Laboratory Analytical Reports

ENCO Laboratories

Accurate. Timely. Responsive. Innovative.

10775 Central Port Drive
Orlando FL, 32824
Phone: 407.826.5314 FAX: 407.850.6945

Wednesday, January 14, 2015
Geotechnical and Environmental (GE002)
Attn: Richard McCormick
919 Lake Baldwin Lane
Orlando, FL 32814

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: I-4 Level II
ENCO Workorder(s): A407603

Dear Richard McCormick,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, December 23, 2014.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Orlando. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

David M. Camacho

Project Manager

Enclosure(s)

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: TMW-7 **Lab ID: A407603-01** **Sampled: 12/23/14 13:50** **Received: 12/23/14 16:00**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/21/15		12/30/14	09:00	12/31/14 12:36
EPA 8081B	12/30/14	02/08/15	12/30/14	07:35	01/07/15 13:13

Client ID: TMW-7 **Lab ID: A407603-01RE1** **Sampled: 12/23/14 13:50** **Received: 12/23/14 16:00**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8151A	12/30/14	02/08/15	12/30/14	21:30	01/12/15 22:18

Client ID: CS-25 **Lab ID: A407603-02** **Sampled: 12/23/14 12:30** **Received: 12/23/14 16:00**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/21/15		12/26/14	08:57	12/30/14 12:20
EPA 8081B	01/06/15	02/04/15	12/26/14	12:00	01/07/15 14:56
EPA 8151A	01/06/15	02/04/15	12/26/14	13:30	12/30/14 19:28

Client ID: CS-23 **Lab ID: A407603-03** **Sampled: 12/23/14 12:13** **Received: 12/23/14 16:00**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/21/15		12/26/14	08:57	12/30/14 12:23
EPA 8081B	01/06/15	02/04/15	12/26/14	12:00	01/07/15 15:07
EPA 8151A	01/06/15	02/04/15	12/26/14	13:30	12/30/14 19:54

Client ID: CS-24 **Lab ID: A407603-04** **Sampled: 12/23/14 12:20** **Received: 12/23/14 16:00**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/21/15		12/26/14	08:57	12/30/14 12:26
EPA 8081B	01/06/15	02/04/15	12/26/14	12:00	01/07/15 15:18
EPA 8151A	01/06/15	02/04/15	12/26/14	13:30	12/30/14 20:20

Client ID: CS-22 **Lab ID: A407603-05** **Sampled: 12/22/14 16:30** **Received: 12/23/14 16:00**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/20/15		12/26/14	08:57	12/30/14 12:29
EPA 8081B	01/05/15	02/04/15	12/26/14	12:00	01/07/15 15:30
EPA 8151A	01/05/15	02/04/15	12/26/14	13:30	12/30/14 20:46

Client ID: CS-21 **Lab ID: A407603-06** **Sampled: 12/22/14 16:25** **Received: 12/23/14 16:00**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/20/15		12/26/14	08:57	12/30/14 12:32
EPA 8081B	01/05/15	02/04/15	12/26/14	12:00	01/07/15 15:41
EPA 8151A	01/05/15	02/04/15	12/26/14	13:30	12/30/14 21:12

SAMPLE DETECTION SUMMARY

Client ID: CS-25 **Lab ID:** A407603-02

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Isodrin	0.016		0.0013	0.0037	mg/kg dry	EPA 8081B	

Client ID: CS-23 **Lab ID:** A407603-03

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Isodrin	0.0021	I	0.0013	0.0037	mg/kg dry	EPA 8081B	

ANALYTICAL RESULTS

Description: TMW-7 | **Lab Sample ID:** A407603-01 | **Received:** 12/23/14 16:00
Matrix: Ground Water | **Sampled:** 12/23/14 13:50 | **Work Order:** A407603
Project: I-4 Level II | **Sampled By:** Jerry Governale

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
4,4'-DDE [72-55-9]^	0.036	U	ug/L	1	0.036	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
4,4'-DDT [50-29-3]^	0.025	U	ug/L	1	0.025	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Aldrin [309-00-2]^	0.032	U	ug/L	1	0.032	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
alpha-BHC [319-84-6]^	0.026	U	ug/L	1	0.026	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
beta-BHC [319-85-7]^	0.022	U	ug/L	1	0.022	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Chlordane (tech) [12789-03-6]^	0.32	U	ug/L	1	0.32	0.50	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Chlordane-alpha [5103-71-9]^	0.022	U	ug/L	1	0.022	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Chlordane-gamma [5566-34-7]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
delta-BHC [319-86-8]^	0.019	U	ug/L	1	0.019	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Dieldrin [60-57-1]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Endosulfan I [959-98-8]^	0.016	U	ug/L	1	0.016	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Endosulfan II [33213-65-9]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Endosulfan sulfate [1031-07-8]^	0.016	U	ug/L	1	0.016	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Endrin [72-20-8]^	0.014	U	ug/L	1	0.014	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Endrin aldehyde [7421-93-4]^	0.020	U	ug/L	1	0.020	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Endrin ketone [53494-70-5]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
gamma-BHC [58-89-9]^	0.020	U	ug/L	1	0.020	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Heptachlor [76-44-8]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Heptachlor epoxide [1024-57-3]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Isodrin [465-73-6]^	0.030	U	ug/L	1	0.030	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Methoxychlor [72-43-5]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Mirex [2385-85-5]^	0.034	U	ug/L	1	0.034	0.050	4L30007	EPA 8081B	01/07/15 13:13	JJB	
Toxaphene [8001-35-2]^	0.48	U	ug/L	1	0.48	0.50	4L30007	EPA 8081B	01/07/15 13:13	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.95*	*1*	*1.00*	*95 %*	*38-142*	*4L30007*	*EPA 8081B*	*01/07/15 13:13*	*JJB*	
Decachlorobiphenyl	*0.90*	*1*	*1.00*	*90 %*	*34-159*	*4L30007*	*EPA 8081B*	*01/07/15 13:13*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.28	U	ug/L	1	0.28	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	QV-01
2,4,5-TP (Silvex) [93-72-1]^	0.44	U	ug/L	1	0.44	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
2,4-D [94-75-7]^	0.27	U	ug/L	1	0.27	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
2,4-DB [94-82-6]^	0.35	U	ug/L	1	0.35	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
3,5-DCBA [51-365-5]^	0.36	U	ug/L	1	0.36	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
4-Nitrophenol [100-02-7]^	0.32	U	ug/L	1	0.32	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Acifluorfen [50594-66-6]^	0.45	U	ug/L	1	0.45	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Bentazon [25057-89-0]^	0.22	U	ug/L	1	0.22	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Chloramben [133-90-4]^	0.43	U	ug/L	1	0.43	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Dacthal [1861-32-1]^	0.23	U	ug/L	1	0.23	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Dalapon [75-99-0]^	0.49	U	ug/L	1	0.49	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Dicamba [1918-00-9]^	0.19	U	ug/L	1	0.19	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Dichlorprop [120-36-5]^	0.28	U	ug/L	1	0.28	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Dinoseb [88-85-7]^	0.32	U	ug/L	1	0.32	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
MCPA [94-74-6]^	34	U	ug/L	1	34	50	4L30037	EPA 8151A	01/12/15 22:18	RC	
MCPP [7085-19-0]^	46	U	ug/L	1	46	50	4L30037	EPA 8151A	01/12/15 22:18	RC	

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ANALYTICAL RESULTS

Description: TMW-7 | **Lab Sample ID:** A407603-01 | **Received:** 12/23/14 16:00

Matrix: Ground Water | **Sampled:** 12/23/14 13:50 | **Work Order:** A407603

Project: I-4 Level II | **Sampled By:** Jerry Governale

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Pentachlorophenol [87-86-5]^	0.19	U	ug/L	1	0.19	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	
Picloram [1918-02-1]^	0.23	U	ug/L	1	0.23	0.50	4L30037	EPA 8151A	01/12/15 22:18	RC	QV-01

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.5*	*1*	*2.00*	*74 %*	*68-139*	*4L30037*	*EPA 8151A*	*01/12/15 22:18*	*RC*	

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	7.12	U	ug/L	1	7.12	10.0	4L30003	EPA 6010C	12/31/14 12:36	ACV	

ANALYTICAL RESULTS

Description: CS-25 | **Lab Sample ID:** A407603-02 | **Received:** 12/23/14 16:00
Matrix: Soil | **Sampled:** 12/23/14 12:30 | **Work Order:** A407603
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 93.05

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
4,4'-DDE [72-55-9]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0014	U	mg/kg dry	2	0.0014	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Aldrin [309-00-2]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
alpha-BHC [319-84-6]^	0.0012	U	mg/kg dry	2	0.0012	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
beta-BHC [319-85-7]^	0.0021	U	mg/kg dry	2	0.0021	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Chlordane (tech) [12789-03-6]^	0.018	U	mg/kg dry	2	0.018	0.071	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Chlordane-alpha [5103-71-9]^	0.00097	U	mg/kg dry	2	0.00097	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Chlordane-gamma [5566-34-7]^	0.00097	U	mg/kg dry	2	0.00097	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
delta-BHC [319-86-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Dieldrin [60-57-1]^	0.00097	U	mg/kg dry	2	0.00097	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Endosulfan I [959-98-8]^	0.00084	U	mg/kg dry	2	0.00084	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Endosulfan II [33213-65-9]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Endosulfan sulfate [1031-07-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Endrin [72-20-8]^	0.0016	U	mg/kg dry	2	0.0016	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Endrin aldehyde [7421-93-4]^	0.0018	U	mg/kg dry	2	0.0018	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Endrin ketone [53494-70-5]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
gamma-BHC [58-89-9]^	0.0013	U	mg/kg dry	2	0.0013	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Heptachlor [76-44-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Heptachlor epoxide [1024-57-3]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Isodrin [465-73-6]^	**0.016**		mg/kg dry	2	0.0013	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Methoxychlor [72-43-5]^	0.0018	U	mg/kg dry	2	0.0018	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Mirex [2385-85-5]^	0.0024	U	mg/kg dry	2	0.0024	0.0037	4L26014	EPA 8081B	01/07/15 14:56	JJB	
Toxaphene [8001-35-2]^	0.037	U	mg/kg dry	2	0.037	0.071	4L26014	EPA 8081B	01/07/15 14:56	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.011*	*2*	*0.0358*	*31 %*	*20-137*	*4L26014*	*EPA 8081B*	*01/07/15 14:56*	*JJB*	
Decachlorobiphenyl	*0.0057*	*2*	*0.0358*	*16 %*	*13-183*	*4L26014*	*EPA 8081B*	*01/07/15 14:56*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.0027	U	mg/kg dry	1	0.0027	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
2,4,5-TP (Silvex) [93-72-1]^	0.0051	U	mg/kg dry	1	0.0051	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
2,4-D [94-75-7]^	0.011	U	mg/kg dry	1	0.011	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
2,4-DB [94-82-6]^	0.0053	U	mg/kg dry	1	0.0053	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
3,5-DCBA [51-365-5]^	0.0024	U	mg/kg dry	1	0.0024	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
4-Nitrophenol [100-02-7]^	0.0070	U	mg/kg dry	1	0.0070	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
Acifluorfen [50594-66-6]^	0.0017	U	mg/kg dry	1	0.0017	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
Chloramben [133-90-4]^	0.0042	U	mg/kg dry	1	0.0042	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
Dacthal [1861-32-1]^	0.0026	U	mg/kg dry	1	0.0026	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
Dalapon [75-99-0]^	0.0054	U	mg/kg dry	1	0.0054	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
Dicamba [1918-00-9]^	0.0025	U	mg/kg dry	1	0.0025	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
Dichlorprop [120-36-5]^	0.0030	U	mg/kg dry	1	0.0030	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
Dinoseb [88-85-7]^	0.0045	U	mg/kg dry	1	0.0045	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	
MCPA [94-74-6]^	0.56	U	mg/kg dry	1	0.56	1.1	4L26015	EPA 8151A	12/30/14 19:28	RC	
MCPP [93-65-2]^	0.57	U	mg/kg dry	1	0.57	1.1	4L26015	EPA 8151A	12/30/14 19:28	RC	
Pentachlorophenol [87-86-5]^	0.0027	U	mg/kg dry	1	0.0027	0.011	4L26015	EPA 8151A	12/30/14 19:28	RC	

ANALYTICAL RESULTS

Description: CS-25	**Lab Sample ID:** A407603-02	**Received:** 12/23/14 16:00
Matrix: Soil	**Sampled:** 12/23/14 12:30	**Work Order:** A407603
Project: I-4 Level II	**Sampled By:** Jerry Governale	**% Solids:** 93.05

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
2,4-DCAA	*0.040*	*1*	*0.0430*	*93 %*	*39-174*		*4L26015*	*EPA 8151A*	*12/30/14 19:28*	*RC*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.445	U	mg/kg dry	1	0.445	0.625	4L26003	EPA 6010C	12/30/14 12:20	ACV	

ANALYTICAL RESULTS

Description: CS-23 | **Lab Sample ID:** A407603-03 | **Received:** 12/23/14 16:00
Matrix: Soil | **Sampled:** 12/23/14 12:13 | **Work Order:** A407603
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 93.05

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
4,4'-DDE [72-55-9]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0014	U	mg/kg dry	2	0.0014	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Aldrin [309-00-2]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
alpha-BHC [319-84-6]^	0.0012	U	mg/kg dry	2	0.0012	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
beta-BHC [319-85-7]^	0.0021	U	mg/kg dry	2	0.0021	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Chlordane (tech) [12789-03-6]^	0.018	U	mg/kg dry	2	0.018	0.071	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Chlordane-alpha [5103-71-9]^	0.00097	U	mg/kg dry	2	0.00097	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Chlordane-gamma [5566-34-7]^	0.00097	U	mg/kg dry	2	0.00097	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
delta-BHC [319-86-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Dieldrin [60-57-1]^	0.00097	U	mg/kg dry	2	0.00097	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Endosulfan I [959-98-8]^	0.00084	U	mg/kg dry	2	0.00084	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Endosulfan II [33213-65-9]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Endosulfan sulfate [1031-07-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Endrin [72-20-8]^	0.0016	U	mg/kg dry	2	0.0016	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Endrin aldehyde [7421-93-4]^	0.0018	U	mg/kg dry	2	0.0018	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Endrin ketone [53494-70-5]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
gamma-BHC [58-89-9]^	0.0013	U	mg/kg dry	2	0.0013	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Heptachlor [76-44-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Heptachlor epoxide [1024-57-3]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Isodrin [465-73-6]^	**0.0021**	I	mg/kg dry	2	0.0013	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Methoxychlor [72-43-5]^	0.0018	U	mg/kg dry	2	0.0018	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Mirex [2385-85-5]^	0.0024	U	mg/kg dry	2	0.0024	0.0037	4L26014	EPA 8081B	01/07/15 15:07	JJB	
Toxaphene [8001-35-2]^	0.037	U	mg/kg dry	2	0.037	0.071	4L26014	EPA 8081B	01/07/15 15:07	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.028*	*2*	*0.0358*	*78 %*	*20-137*	*4L26014*	*EPA 8081B*	*01/07/15 15:07*	*JJB*	
Decachlorobiphenyl	*0.036*	*2*	*0.0358*	*101 %*	*13-183*	*4L26014*	*EPA 8081B*	*01/07/15 15:07*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.0027	U	mg/kg dry	1	0.0027	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
2,4,5-TP (Silvex) [93-72-1]^	0.0051	U	mg/kg dry	1	0.0051	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
2,4-D [94-75-7]^	0.011	U	mg/kg dry	1	0.011	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
2,4-DB [94-82-6]^	0.0053	U	mg/kg dry	1	0.0053	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
3,5-DCBA [51-365-5]^	0.0024	U	mg/kg dry	1	0.0024	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
4-Nitrophenol [100-02-7]^	0.0070	U	mg/kg dry	1	0.0070	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
Acifluorfen [50594-66-6]^	0.0017	U	mg/kg dry	1	0.0017	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
Chloramben [133-90-4]^	0.0042	U	mg/kg dry	1	0.0042	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
Dacthal [1861-32-1]^	0.0026	U	mg/kg dry	1	0.0026	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
Dalapon [75-99-0]^	0.0054	U	mg/kg dry	1	0.0054	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
Dicamba [1918-00-9]^	0.0025	U	mg/kg dry	1	0.0025	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
Dichlorprop [120-36-5]^	0.0030	U	mg/kg dry	1	0.0030	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
Dinoseb [88-85-7]^	0.0045	U	mg/kg dry	1	0.0045	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	
MCPA [94-74-6]^	0.56	U	mg/kg dry	1	0.56	1.1	4L26015	EPA 8151A	12/30/14 19:54	RC	
MCPP [93-65-2]^	0.57	U	mg/kg dry	1	0.57	1.1	4L26015	EPA 8151A	12/30/14 19:54	RC	
Pentachlorophenol [87-86-5]^	0.0027	U	mg/kg dry	1	0.0027	0.011	4L26015	EPA 8151A	12/30/14 19:54	RC	

ANALYTICAL RESULTS

Description: CS-23	**Lab Sample ID:** A407603-03	**Received:** 12/23/14 16:00
Matrix: Soil	**Sampled:** 12/23/14 12:13	**Work Order:** A407603
Project: I-4 Level II	**Sampled By:** Jerry Governale	**% Solids:** 93.05

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
2,4-DCAA	*0.029*	*1*	*0.0429*	*67 %*	*39-174*		*4L26015*	*EPA 8151A*	*12/30/14 19:54*	*RC*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.539	U	mg/kg dry	1	0.539	0.757	4L26003	EPA 6010C	12/30/14 12:23	ACV	

ANALYTICAL RESULTS

Description: CS-24 | **Lab Sample ID:** A407603-04 | **Received:** 12/23/14 16:00
Matrix: Soil | **Sampled:** 12/23/14 12:20 | **Work Order:** A407603
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 90.87

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
4,4'-DDE [72-55-9]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0015	U	mg/kg dry	2	0.0015	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Aldrin [309-00-2]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
alpha-BHC [319-84-6]^	0.0012	U	mg/kg dry	2	0.0012	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
beta-BHC [319-85-7]^	0.0022	U	mg/kg dry	2	0.0022	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Chlordane (tech) [12789-03-6]^	0.018	U	mg/kg dry	2	0.018	0.073	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Chlordane-alpha [5103-71-9]^	0.00099	U	mg/kg dry	2	0.00099	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Chlordane-gamma [5566-34-7]^	0.00099	U	mg/kg dry	2	0.00099	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
delta-BHC [319-86-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Dieldrin [60-57-1]^	0.00099	U	mg/kg dry	2	0.00099	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Endosulfan I [959-98-8]^	0.00086	U	mg/kg dry	2	0.00086	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Endosulfan II [33213-65-9]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Endosulfan sulfate [1031-07-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Endrin [72-20-8]^	0.0016	U	mg/kg dry	2	0.0016	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Endrin aldehyde [7421-93-4]^	0.0018	U	mg/kg dry	2	0.0018	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Endrin ketone [53494-70-5]^	0.0010	U	mg/kg dry	2	0.0010	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
gamma-BHC [58-89-9]^	0.0013	U	mg/kg dry	2	0.0013	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Heptachlor [76-44-8]^	0.0014	U	mg/kg dry	2	0.0014	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Heptachlor epoxide [1024-57-3]^	0.0011	U	mg/kg dry	2	0.0011	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Isodrin [465-73-6]^	0.0014	U	mg/kg dry	2	0.0014	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Methoxychlor [72-43-5]^	0.0019	U	mg/kg dry	2	0.0019	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Mirex [2385-85-5]^	0.0024	U	mg/kg dry	2	0.0024	0.0037	4L26014	EPA 8081B	01/07/15 15:18	JJB	
Toxaphene [8001-35-2]^	0.037	U	mg/kg dry	2	0.037	0.073	4L26014	EPA 8081B	01/07/15 15:18	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.030*	*2*	*0.0367*	*81 %*	*20-137*	*4L26014*	*EPA 8081B*	*01/07/15 15:18*	*JJB*	
Decachlorobiphenyl	*0.038*	*2*	*0.0367*	*103 %*	*13-183*	*4L26014*	*EPA 8081B*	*01/07/15 15:18*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.0028	U	mg/kg dry	1	0.0028	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
2,4,5-TP (Silvex) [93-72-1]^	0.0052	U	mg/kg dry	1	0.0052	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
2,4-D [94-75-7]^	0.011	U	mg/kg dry	1	0.011	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
2,4-DB [94-82-6]^	0.0054	U	mg/kg dry	1	0.0054	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
3,5-DCBA [51-365-5]^	0.0024	U	mg/kg dry	1	0.0024	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
4-Nitrophenol [100-02-7]^	0.0072	U	mg/kg dry	1	0.0072	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
Acifluorfen [50594-66-6]^	0.0018	U	mg/kg dry	1	0.0018	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
Chloramben [133-90-4]^	0.0043	U	mg/kg dry	1	0.0043	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
Dacthal [1861-32-1]^	0.0026	U	mg/kg dry	1	0.0026	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
Dalapon [75-99-0]^	0.0055	U	mg/kg dry	1	0.0055	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
Dicamba [1918-00-9]^	0.0025	U	mg/kg dry	1	0.0025	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
Dichlorprop [120-36-5]^	0.0031	U	mg/kg dry	1	0.0031	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
Dinoseb [88-85-7]^	0.0046	U	mg/kg dry	1	0.0046	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	
MCPA [94-74-6]^	0.57	U	mg/kg dry	1	0.57	1.1	4L26015	EPA 8151A	12/30/14 20:20	RC	
MCPP [93-65-2]^	0.58	U	mg/kg dry	1	0.58	1.1	4L26015	EPA 8151A	12/30/14 20:20	RC	
Pentachlorophenol [87-86-5]^	0.0028	U	mg/kg dry	1	0.0028	0.011	4L26015	EPA 8151A	12/30/14 20:20	RC	

ANALYTICAL RESULTS

Description: CS-24	**Lab Sample ID:** A407603-04	**Received:** 12/23/14 16:00
Matrix: Soil	**Sampled:** 12/23/14 12:20	**Work Order:** A407603
Project: I-4 Level II	**Sampled By:** Jerry Governale	**% Solids:** 90.87

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
2,4-DCAA	*0.033*	*1*	*0.0439*	*76 %*	*39-174*		*4L26015*	*EPA 8151A*	*12/30/14 20:20*	*RC*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.509	U	mg/kg dry	1	0.509	0.715	4L26003	EPA 6010C	12/30/14 12:26	ACV	

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ANALYTICAL RESULTS

Description: CS-22 | **Lab Sample ID:** A407603-05 | **Received:** 12/23/14 16:00

Matrix: Soil | **Sampled:** 12/22/14 16:30 | **Work Order:** A407603

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 77.41

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
4,4'-DDE [72-55-9]^	0.0013	U	mg/kg dry	2	0.0013	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0017	U	mg/kg dry	2	0.0017	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Aldrin [309-00-2]^	0.0013	U	mg/kg dry	2	0.0013	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
alpha-BHC [319-84-6]^	0.0014	U	mg/kg dry	2	0.0014	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
beta-BHC [319-85-7]^	0.0026	U	mg/kg dry	2	0.0026	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Chlordane (tech) [12789-03-6]^	0.022	U	mg/kg dry	2	0.022	0.085	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Chlordane-alpha [5103-71-9]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Chlordane-gamma [5566-34-7]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
delta-BHC [319-86-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Dieldrin [60-57-1]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Endosulfan I [959-98-8]^	0.0010	U	mg/kg dry	2	0.0010	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Endosulfan II [33213-65-9]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Endosulfan sulfate [1031-07-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Endrin [72-20-8]^	0.0019	U	mg/kg dry	2	0.0019	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Endrin aldehyde [7421-93-4]^	0.0021	U	mg/kg dry	2	0.0021	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Endrin ketone [53494-70-5]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
gamma-BHC [58-89-9]^	0.0016	U	mg/kg dry	2	0.0016	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Heptachlor [76-44-8]^	0.0016	U	mg/kg dry	2	0.0016	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Heptachlor epoxide [1024-57-3]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Isodrin [465-73-6]^	0.0016	U	mg/kg dry	2	0.0016	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Methoxychlor [72-43-5]^	0.0022	U	mg/kg dry	2	0.0022	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Mirex [2385-85-5]^	0.0028	U	mg/kg dry	2	0.0028	0.0044	4L26014	EPA 8081B	01/07/15 15:30	JJB	
Toxaphene [8001-35-2]^	0.044	U	mg/kg dry	2	0.044	0.085	4L26014	EPA 8081B	01/07/15 15:30	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.024*	*2*	*0.0426*	*56 %*	*20-137*	*4L26014*	*EPA 8081B*	*01/07/15 15:30*	*JJB*	
Decachlorobiphenyl	*0.032*	*2*	*0.0426*	*74 %*	*13-183*	*4L26014*	*EPA 8081B*	*01/07/15 15:30*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.0032	U	mg/kg dry	1	0.0032	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
2,4,5-TP (Silvex) [93-72-1]^	0.0061	U	mg/kg dry	1	0.0061	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
2,4-D [94-75-7]^	0.013	U	mg/kg dry	1	0.013	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
2,4-DB [94-82-6]^	0.0063	U	mg/kg dry	1	0.0063	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
3,5-DCBA [51-365-5]^	0.0028	U	mg/kg dry	1	0.0028	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
4-Nitrophenol [100-02-7]^	0.0084	U	mg/kg dry	1	0.0084	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
Acifluorfen [50594-66-6]^	0.0021	U	mg/kg dry	1	0.0021	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
Chloramben [133-90-4]^	0.0050	U	mg/kg dry	1	0.0050	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
Dacthal [1861-32-1]^	0.0031	U	mg/kg dry	1	0.0031	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
Dalapon [75-99-0]^	0.0065	U	mg/kg dry	1	0.0065	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
Dicamba [1918-00-9]^	0.0030	U	mg/kg dry	1	0.0030	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
Dichlorprop [120-36-5]^	0.0036	U	mg/kg dry	1	0.0036	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
Dinoseb [88-85-7]^	0.0054	U	mg/kg dry	1	0.0054	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	
MCPA [94-74-6]^	0.67	U	mg/kg dry	1	0.67	1.3	4L26015	EPA 8151A	12/30/14 20:46	RC	
MCPP [93-65-2]^	0.68	U	mg/kg dry	1	0.68	1.3	4L26015	EPA 8151A	12/30/14 20:46	RC	
Pentachlorophenol [87-86-5]^	0.0032	U	mg/kg dry	1	0.0032	0.013	4L26015	EPA 8151A	12/30/14 20:46	RC	

ANALYTICAL RESULTS

Description: CS-22	**Lab Sample ID:** A407603-05	**Received:** 12/23/14 16:00
Matrix: Soil	**Sampled:** 12/22/14 16:30	**Work Order:** A407603
Project: I-4 Level II	**Sampled By:** Jerry Governale	**% Solids:** 77.41

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
2,4-DCAA	*0.032*	*1*	*0.0515*	*63 %*	*39-174*		*4L26015*	*EPA 8151A*	*12/30/14 20:46*	*RC*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.766	U	mg/kg dry	1	0.766	1.08	4L26003	EPA 6010C	12/30/14 12:29	ACV	

ANALYTICAL RESULTS

Description: CS-21 | **Lab Sample ID:** A407603-06 | **Received:** 12/23/14 16:00
Matrix: Soil | **Sampled:** 12/22/14 16:25 | **Work Order:** A407603
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 87.89

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
4,4'-DDE [72-55-9]^	0.0012	U	mg/kg dry	2	0.0012	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0015	U	mg/kg dry	2	0.0015	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Aldrin [309-00-2]^	0.0012	U	mg/kg dry	2	0.0012	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
alpha-BHC [319-84-6]^	0.0013	U	mg/kg dry	2	0.0013	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
beta-BHC [319-85-7]^	0.0023	U	mg/kg dry	2	0.0023	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Chlordane (tech) [12789-03-6]^	0.019	U	mg/kg dry	2	0.019	0.075	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Chlordane-alpha [5103-71-9]^	0.0010	U	mg/kg dry	2	0.0010	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Chlordane-gamma [5566-34-7]^	0.0010	U	mg/kg dry	2	0.0010	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
delta-BHC [319-86-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Dieldrin [60-57-1]^	0.0010	U	mg/kg dry	2	0.0010	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Endosulfan I [959-98-8]^	0.00089	U	mg/kg dry	2	0.00089	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Endosulfan II [33213-65-9]^	0.0011	U	mg/kg dry	2	0.0011	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Endosulfan sulfate [1031-07-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Endrin [72-20-8]^	0.0017	U	mg/kg dry	2	0.0017	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Endrin aldehyde [7421-93-4]^	0.0019	U	mg/kg dry	2	0.0019	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Endrin ketone [53494-70-5]^	0.0011	U	mg/kg dry	2	0.0011	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
gamma-BHC [58-89-9]^	0.0014	U	mg/kg dry	2	0.0014	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Heptachlor [76-44-8]^	0.0014	U	mg/kg dry	2	0.0014	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Heptachlor epoxide [1024-57-3]^	0.0011	U	mg/kg dry	2	0.0011	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Isodrin [465-73-6]^	0.0014	U	mg/kg dry	2	0.0014	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Methoxychlor [72-43-5]^	0.0020	U	mg/kg dry	2	0.0020	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Mirex [2385-85-5]^	0.0025	U	mg/kg dry	2	0.0025	0.0039	4L26014	EPA 8081B	01/07/15 15:41	JJB	
Toxaphene [8001-35-2]^	0.039	U	mg/kg dry	2	0.039	0.075	4L26014	EPA 8081B	01/07/15 15:41	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.029*	*2*	*0.0378*	*75 %*	*20-137*	*4L26014*	*EPA 8081B*	*01/07/15 15:41*	*JJB*	
Decachlorobiphenyl	*0.037*	*2*	*0.0378*	*99 %*	*13-183*	*4L26014*	*EPA 8081B*	*01/07/15 15:41*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.0028	U	mg/kg dry	1	0.0028	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
2,4,5-TP (Silvex) [93-72-1]^	0.0053	U	mg/kg dry	1	0.0053	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
2,4-D [94-75-7]^	0.011	U	mg/kg dry	1	0.011	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
2,4-DB [94-82-6]^	0.0056	U	mg/kg dry	1	0.0056	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
3,5-DCBA [51-365-5]^	0.0025	U	mg/kg dry	1	0.0025	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
4-Nitrophenol [100-02-7]^	0.0074	U	mg/kg dry	1	0.0074	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
Acifluorfen [50594-66-6]^	0.0018	U	mg/kg dry	1	0.0018	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
Chloramben [133-90-4]^	0.0044	U	mg/kg dry	1	0.0044	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
Dacthal [1861-32-1]^	0.0027	U	mg/kg dry	1	0.0027	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
Dalapon [75-99-0]^	0.0057	U	mg/kg dry	1	0.0057	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
Dicamba [1918-00-9]^	0.0026	U	mg/kg dry	1	0.0026	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
Dichlorprop [120-36-5]^	0.0032	U	mg/kg dry	1	0.0032	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
Dinoseb [88-85-7]^	0.0048	U	mg/kg dry	1	0.0048	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	
MCPA [94-74-6]^	0.59	U	mg/kg dry	1	0.59	1.1	4L26015	EPA 8151A	12/30/14 21:12	RC	
MCPP [93-65-2]^	0.60	U	mg/kg dry	1	0.60	1.1	4L26015	EPA 8151A	12/30/14 21:12	RC	
Pentachlorophenol [87-86-5]^	0.0028	U	mg/kg dry	1	0.0028	0.011	4L26015	EPA 8151A	12/30/14 21:12	RC	

ANALYTICAL RESULTS

Description: CS-21	**Lab Sample ID:** A407603-06	**Received:** 12/23/14 16:00
Matrix: Soil	**Sampled:** 12/22/14 16:25	**Work Order:** A407603
Project: I-4 Level II	**Sampled By:** Jerry Governale	**% Solids:** 87.89

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
2,4-DCAA	*0.036*	*1*	*0.0452*	*79 %*	*39-174*		*4L26015*	*EPA 8151A*	*12/30/14 21:12*	*RC*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.477	U	mg/kg dry	1	0.477	0.669	4L26003	EPA 6010C	12/30/14 12:32	ACV	

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 4L26014 - EPA 3550C

Blank (4L26014-BLK1) Prepared: 12/26/2014 12:00 Analyzed: 01/07/2015 13:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.00048	U	0.0017	mg/kg wet							
4,4'-DDE	0.00052	U	0.0017	mg/kg wet							
4,4'-DDT	0.00066	U	0.0017	mg/kg wet							
Aldrin	0.00051	U	0.0017	mg/kg wet							
alpha-BHC	0.00056	U	0.0017	mg/kg wet							
beta-BHC	0.0010	U	0.0017	mg/kg wet							
Chlordane (tech)	0.0084	U	0.033	mg/kg wet							
Chlordane-alpha	0.00045	U	0.0017	mg/kg wet							
Chlordane-gamma	0.00045	U	0.0017	mg/kg wet							
delta-BHC	0.00050	U	0.0017	mg/kg wet							
Dieldrin	0.00045	U	0.0017	mg/kg wet							
Endosulfan I	0.00039	U	0.0017	mg/kg wet							
Endosulfan II	0.00048	U	0.0017	mg/kg wet							
Endosulfan sulfate	0.00049	U	0.0017	mg/kg wet							
Endrin	0.00074	U	0.0017	mg/kg wet							
Endrin aldehyde	0.00083	U	0.0017	mg/kg wet							
Endrin ketone	0.00047	U	0.0017	mg/kg wet							
gamma-BHC	0.00060	U	0.0017	mg/kg wet							
Heptachlor	0.00062	U	0.0017	mg/kg wet							
Heptachlor epoxide	0.00048	U	0.0017	mg/kg wet							
Isodrin	0.00062	U	0.0017	mg/kg wet							
Methoxychlor	0.00086	U	0.0017	mg/kg wet							
Mirex	0.0011	U	0.0017	mg/kg wet							
Toxaphene	0.017	U	0.033	mg/kg wet							
2,4,5,6-TCMX	*0.050*			*mg/kg wet*	*0.0333*		*150*	*20-137*			*QS-03*
Decachlorobiphenyl	*0.045*			*mg/kg wet*	*0.0333*		*136*	*13-183*			

LCS (4L26014-BS1) Prepared: 12/26/2014 12:00 Analyzed: 01/07/2015 13:47

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 4L26014 - EPA 3550C - Continued

LCS (4L26014-BS1) Continued Prepared: 12/26/2014 12:00 Analyzed: 01/07/2015 13:47

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.036		0.0017	mg/kg wet	0.0333		108	37-125			
Dieldrin	0.036		0.0017	mg/kg wet	0.0333		108	46-127			
Endrin	0.035		0.0017	mg/kg wet	0.0333		105	28-143			
2,4,5,6-TCMX	*0.041*			*mg/kg wet*	*0.0333*		*123*	*20-137*			
Decachlorobiphenyl	*0.047*			*mg/kg wet*	*0.0333*		*140*	*13-183*			

Matrix Spike (4L26014-MS1) Prepared: 12/26/2014 12:00 Analyzed: 01/07/2015 14:10

Source: A407582-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.031		0.0044	mg/kg dry	0.0426	0.0017 U	73	37-125			
Dieldrin	0.032		0.0044	mg/kg dry	0.0426	0.0012 U	76	46-127			
Endrin	0.032		0.0044	mg/kg dry	0.0426	0.0019 U	76	28-143			
2,4,5,6-TCMX	*0.033*			*mg/kg dry*	*0.0426*		*78*	*20-137*			
Decachlorobiphenyl	*0.040*			*mg/kg dry*	*0.0426*		*94*	*13-183*			

Matrix Spike Dup (4L26014-MSD1) Prepared: 12/26/2014 12:00 Analyzed: 01/07/2015 14:21

Source: A407582-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.034		0.0044	mg/kg dry	0.0427	0.0017 U	80	37-125	9	24	
Dieldrin	0.033		0.0044	mg/kg dry	0.0427	0.0012 U	77	46-127	2	21	
Endrin	0.032		0.0044	mg/kg dry	0.0427	0.0019 U	74	28-143	2	22	
2,4,5,6-TCMX	*0.037*			*mg/kg dry*	*0.0427*		*87*	*20-137*			
Decachlorobiphenyl	*0.042*			*mg/kg dry*	*0.0427*		*98*	*13-183*			

Batch 4L30007 - EPA 3510C

Blank (4L30007-BLK1) Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:05

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.018	U	0.050	ug/L							
4,4'-DDE	0.036	U	0.050	ug/L							
4,4'-DDT	0.025	U	0.050	ug/L							
Aldrin	0.032	U	0.050	ug/L							
alpha-BHC	0.026	U	0.050	ug/L							
beta-BHC	0.022	U	0.050	ug/L							
Chlordane (tech)	0.32	U	0.50	ug/L							
Chlordane-alpha	0.022	U	0.050	ug/L							
Chlordane-gamma	0.018	U	0.050	ug/L							
delta-BHC	0.019	U	0.050	ug/L							
Dieldrin	0.017	U	0.050	ug/L							
Endosulfan I	0.016	U	0.050	ug/L							
Endosulfan II	0.017	U	0.050	ug/L							
Endosulfan sulfate	0.016	U	0.050	ug/L							
Endrin	0.014	U	0.050	ug/L							

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 4L30007 - EPA 3510C - Continued

Blank (4L30007-BLK1) Continued Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:05

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Endrin aldehyde	0.020	U	0.050	ug/L							
Endrin ketone	0.017	U	0.050	ug/L							
gamma-BHC	0.020	U	0.050	ug/L							
Heptachlor	0.018	U	0.050	ug/L							
Heptachlor epoxide	0.018	U	0.050	ug/L							
Isodrin	0.030	U	0.050	ug/L							
Methoxychlor	0.018	U	0.050	ug/L							
Mirex	0.034	U	0.050	ug/L							
Toxaphene	0.48	U	0.50	ug/L							
2,4,5,6-TCMX	*1.1*			*ug/L*	*1.00*		*105*	*38-142*			
Decachlorobiphenyl	*0.99*			*ug/L*	*1.00*		*99*	*34-159*			

Blank (4L30007-BLK2) Prepared: 12/31/2014 05:35 Analyzed: 01/07/2015 12:16

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.018	U	0.050	ug/L							
4,4'-DDE	0.036	U	0.050	ug/L							
4,4'-DDT	0.025	U	0.050	ug/L							
Aldrin	0.032	U	0.050	ug/L							
alpha-BHC	0.026	U	0.050	ug/L							
beta-BHC	0.022	U	0.050	ug/L							
Chlordane (tech)	0.32	U	0.50	ug/L							
Chlordane-alpha	0.022	U	0.050	ug/L							
Chlordane-gamma	0.018	U	0.050	ug/L							
delta-BHC	0.019	U	0.050	ug/L							
Dieldrin	0.017	U	0.050	ug/L							
Endosulfan I	0.016	U	0.050	ug/L							
Endosulfan II	0.017	U	0.050	ug/L							
Endosulfan sulfate	0.016	U	0.050	ug/L							
Endrin	0.014	U	0.050	ug/L							
Endrin aldehyde	0.020	U	0.050	ug/L							
Endrin ketone	0.017	U	0.050	ug/L							
gamma-BHC	0.020	U	0.050	ug/L							
Heptachlor	0.018	U	0.050	ug/L							
Heptachlor epoxide	0.018	U	0.050	ug/L							
Isodrin	0.030	U	0.050	ug/L							
Methoxychlor	0.018	U	0.050	ug/L							
Mirex	0.034	U	0.050	ug/L							
Toxaphene	0.48	U	0.50	ug/L							
2,4,5,6-TCMX	*0.98*			*ug/L*	*1.00*		*98*	*38-142*			
Decachlorobiphenyl	*0.99*			*ug/L*	*1.00*		*99*	*34-159*			

LCS (4L30007-BS1) Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:27

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.0		0.050	ug/L	1.00		104	37-125			
Dieldrin	0.80		0.050	ug/L	1.00		80	46-127			
Endrin	0.79		0.050	ug/L	1.00		79	28-143			

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 4L30007 - EPA 3510C - Continued

LCS (4L30007-BS1) Continued Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:27

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5,6-TCMX	*0.84*			*ug/L*	*1.00*		*84*	*38-142*			
Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*116*	*34-159*			

Matrix Spike (4L30007-MS1) Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:39

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.1		0.050	ug/L	1.00	0.025 U	107	37-125			
Dieldrin	0.80		0.050	ug/L	1.00	0.017 U	80	46-127			
Endrin	0.78		0.050	ug/L	1.00	0.014 U	78	28-143			
2,4,5,6-TCMX	*0.92*			*ug/L*	*1.00*		*92*	*38-142*			
Decachlorobiphenyl	*1.1*			*ug/L*	*1.00*		*113*	*34-159*			

Matrix Spike Dup (4L30007-MSD1) Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:50

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.93		0.050	ug/L	1.00	0.025 U	93	37-125	14	24	
Dieldrin	0.64		0.050	ug/L	1.00	0.017 U	64	46-127	22	21	QM-11
Endrin	0.61		0.050	ug/L	1.00	0.014 U	61	28-143	25	22	QM-11
2,4,5,6-TCMX	*0.86*			*ug/L*	*1.00*		*86*	*38-142*			
Decachlorobiphenyl	*0.89*			*ug/L*	*1.00*		*89*	*34-159*			

Chlorinated Herbicides by GC - Quality Control

Batch 4L22067 - EPA 3510C

Blank (4L22067-BLK1) Prepared: 12/22/2014 21:00 Analyzed: 12/29/2014 15:27

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.28	U	0.50	ug/L							
2,4,5-TP (Silvex)	0.44	U	0.50	ug/L							
2,4-D	0.27	U	0.50	ug/L							
2,4-DB	0.35	U	0.50	ug/L							
3,5-DCBA	0.36	U	0.50	ug/L							
4-Nitrophenol	0.32	U	0.50	ug/L							
Acifluorfen	0.45	U	0.50	ug/L							
Bentazon	0.22	U	0.50	ug/L							J-05
Chloramben	0.43	U	0.50	ug/L							
Dacthal	0.23	U	0.50	ug/L							
Dalapon	0.49	U	0.50	ug/L							
Dicamba	0.19	U	0.50	ug/L							
Dichlorprop	0.28	U	0.50	ug/L							
Dinoseb	0.32	U	0.50	ug/L							
MCPA	34	U	50	ug/L							
MCPP	46	U	50	ug/L							
Pentachlorophenol	0.19	U	0.50	ug/L							
Picloram	0.23	U	0.50	ug/L							
2,4-DCAA	*2.4*			*ug/L*	*2.00*		*122*	*68-139*			

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 4L22067 - EPA 3510C - Continued

LCS (4L22067-BS1) Prepared: 12/22/2014 21:00 Analyzed: 12/29/2014 15:53

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.7		0.50	ug/L	2.00		86	70-114			
2,4-D	1.6		0.50	ug/L	2.00		80	37-129			
2,4-DB	1.6		0.50	ug/L	2.00		82	49-144			
Bentazon	1.1		0.50	ug/L	2.00		53	37-141			
Dalapon	0.70		0.50	ug/L	2.00		35	18-121			
Dicamba	1.7		0.50	ug/L	2.00		86	36-143			
Picloram	1.3		0.50	ug/L	2.00		64	36-127			
2,4-DCAA	*2.4*			*ug/L*	*2.00*		*120*	*68-139*			

Matrix Spike (4L22067-MS1) Prepared: 12/22/2014 21:00 Analyzed: 12/29/2014 16:19

Source: A407522-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.4		0.50	ug/L	2.00	0.44 U	69	70-114			QM-07
2,4-D	1.3		0.50	ug/L	2.00	0.27 U	64	37-129			
2,4-DB	1.3		0.50	ug/L	2.00	0.35 U	64	49-144			
Bentazon	0.81		0.50	ug/L	2.00	0.22 U	41	37-141			
Dalapon	1.1		0.50	ug/L	2.00	0.49 U	57	18-121			
Dicamba	1.3		0.50	ug/L	2.00	0.19 U	67	36-143			
Picloram	0.80		0.50	ug/L	2.00	0.23 U	40	36-127			
2,4-DCAA	*2.1*			*ug/L*	*2.00*		*106*	*68-139*			

Matrix Spike Dup (4L22067-MSD1) Prepared: 12/22/2014 21:00 Analyzed: 12/29/2014 16:45

Source: A407522-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.2		0.50	ug/L	2.00	0.44 U	59	70-114	15	15	QM-07
2,4-D	1.1		0.50	ug/L	2.00	0.27 U	55	37-129	16	33	
2,4-DB	1.2		0.50	ug/L	2.00	0.35 U	61	49-144	3	36	
Bentazon	0.83		0.50	ug/L	2.00	0.22 U	41	37-141	2	22	
Dalapon	1.3		0.50	ug/L	2.00	0.49 U	67	18-121	16	49	
Dicamba	1.2		0.50	ug/L	2.00	0.19 U	59	36-143	13	24	
Picloram	0.83		0.50	ug/L	2.00	0.23 U	42	36-127	4	16	
2,4-DCAA	*1.4*			*ug/L*	*2.00*		*72*	*68-139*			

Batch 4L26015 - EPA 3550C

Blank (4L26015-BLK1) Prepared: 12/26/2014 13:30 Analyzed: 12/30/2014 10:43

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.0025	U	0.010	mg/kg wet							
2,4,5-TP (Silvex)	0.0047	U	0.010	mg/kg wet							
2,4-D	0.0099	U	0.010	mg/kg wet							
2,4-DB	0.0049	U	0.010	mg/kg wet							
3,5-DCBA	0.0022	U	0.010	mg/kg wet							
4-Nitrophenol	0.0065	U	0.010	mg/kg wet							

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 4L26015 - EPA 3550C - Continued

Blank (4L26015-BLK1) Continued Prepared: 12/26/2014 13:30 Analyzed: 12/30/2014 10:43

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acifluorfen	0.0016	U	0.010	mg/kg wet							
Bentazon	0.0045	U	0.010	mg/kg wet							J-05
Chloramben	0.0039	U	0.010	mg/kg wet							
Dacthal	0.0024	U	0.010	mg/kg wet							
Dalapon	0.0050	U	0.010	mg/kg wet							
Dicamba	0.0023	U	0.010	mg/kg wet							
Dichlorprop	0.0028	U	0.010	mg/kg wet							
Dinoseb	0.0042	U	0.010	mg/kg wet							
MCPA	0.52	U	1.0	mg/kg wet							
MCPP	0.53	U	1.0	mg/kg wet							
Pentachlorophenol	0.0025	U	0.010	mg/kg wet							
Picloram	0.0018	U	0.010	mg/kg wet							
2,4-DCAA	*0.024*			*mg/kg wet*	*0.0400*		*61*	*39-174*			

LCS (4L26015-BS1) Prepared: 12/26/2014 13:30 Analyzed: 12/30/2014 11:39

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	0.025		0.010	mg/kg wet	0.0400		62	45-135			
2,4-D	0.021		0.010	mg/kg wet	0.0400		53	35-121			
2,4-DB	0.028		0.010	mg/kg wet	0.0400		71	34-160			
Dalapon	0.032		0.010	mg/kg wet	0.0400		79	20-136			
Dicamba	0.030		0.010	mg/kg wet	0.0400		75	47-129			
2,4-DCAA	*0.026*			*mg/kg wet*	*0.0400*		*66*	*39-174*			

LCS (4L26015-BS2) Prepared: 12/26/2014 13:30 Analyzed: 01/05/2015 16:06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-DB	0.039		0.010	mg/kg wet	0.0400		98	34-160			
Bentazon	0.025		0.010	mg/kg wet	0.0400		62	61-100			
Dicamba	0.040		0.010	mg/kg wet	0.0400		100	47-129			
Picloram	0.018		0.010	mg/kg wet	0.0400		45	33-106			

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 4L26015 - EPA 3550C - Continued

LCS (4L26015-BS2) Continued Prepared: 12/26/2014 13:30 Analyzed: 01/05/2015 16:06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-DCAA	*0.033*			*mg/kg wet*	*0.0400*		*81*	*39-174*			

Matrix Spike (4L26015-MS1) Prepared: 12/26/2014 13:30 Analyzed: 12/30/2014 12:05

Source: A407553-09

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	0.022		0.010	mg/kg dry	0.0414	0.0049 U	53	45-135			
2,4-D	0.020		0.010	mg/kg dry	0.0414	0.010 U	47	35-121			
2,4-DB	0.031		0.010	mg/kg dry	0.0414	0.0051 U	75	34-160			
Bentazon	0.014		0.010	mg/kg dry	0.0414	0.0047 U	33	61-100			QM-07
Dalapon	0.034		0.010	mg/kg dry	0.0414	0.0052 U	82	20-136			
Dicamba	0.022		0.010	mg/kg dry	0.0414	0.0024 U	54	47-129			
Picloram	0.012		0.010	mg/kg dry	0.0414	0.0019 U	30	33-106			QM-07
2,4-DCAA	*0.026*			*mg/kg dry*	*0.0414*		*63*	*39-174*			

Matrix Spike Dup (4L26015-MSD1) Prepared: 12/26/2014 13:30 Analyzed: 12/30/2014 12:31

Source: A407553-09

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	0.022		0.010	mg/kg dry	0.0414	0.0049 U	54	45-135	0.6	23	
2,4-D	0.019		0.010	mg/kg dry	0.0414	0.010 U	46	35-121	3	43	
2,4-DB	0.026		0.010	mg/kg dry	0.0414	0.0051 U	63	34-160	17	47	
Bentazon	0.016		0.010	mg/kg dry	0.0414	0.0047 U	38	61-100	13	43	QM-07
Dalapon	0.037		0.010	mg/kg dry	0.0414	0.0052 U	89	20-136	8	50	
Dicamba	0.028		0.010	mg/kg dry	0.0414	0.0024 U	67	47-129	22	50	
Picloram	0.015		0.010	mg/kg dry	0.0414	0.0019 U	35	33-106	17	37	
2,4-DCAA	*0.027*			*mg/kg dry*	*0.0414*		*66*	*39-174*			

Batch 4L30037 - EPA 3510C

Blank (4L30037-BLK1) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 19:18

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.28	U	0.50	ug/L							QV-01
2,4,5-TP (Silvex)	0.44	U	0.50	ug/L							
2,4-D	0.27	U	0.50	ug/L							
2,4-DB	0.35	U	0.50	ug/L							
3,5-DCBA	0.36	U	0.50	ug/L							
4-Nitrophenol	0.32	U	0.50	ug/L							
Acifluorfen	0.45	U	0.50	ug/L							
Bentazon	0.22	U	0.50	ug/L							
Chloramben	0.43	U	0.50	ug/L							
Dacthal	0.23	U	0.50	ug/L							
Dalapon	0.49	U	0.50	ug/L							
Dicamba	0.19	U	0.50	ug/L							
Dichlorprop	0.28	U	0.50	ug/L							
Dinoseb	0.32	U	0.50	ug/L							
MCPA	34	U	50	ug/L							
MCPP	46	U	50	ug/L							

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 4L30037 - EPA 3510C - Continued

Blank (4L30037-BLK1) Continued Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 19:18

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Pentachlorophenol	0.19	U	0.50	ug/L							
Picloram	0.23	U	0.50	ug/L							QV-01
2,4-DCAA [2C]	*1.2*			*ug/L*	*2.00*		*59*	*68-139*			*QS-03*

Blank (4L30037-BLK2) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 19:44

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.28	U	0.50	ug/L							QV-01
2,4,5-TP (Silvex)	0.44	U	0.50	ug/L							
2,4-D	0.27	U	0.50	ug/L							
2,4-DB	0.35	U	0.50	ug/L							
3,5-DCBA	0.36	U	0.50	ug/L							
4-Nitrophenol	0.32	U	0.50	ug/L							
Acifluorfen	0.45	U	0.50	ug/L							
Bentazon	0.22	U	0.50	ug/L							
Chloramben	0.43	U	0.50	ug/L							
Dacthal	0.23	U	0.50	ug/L							
Dalapon	0.49	U	0.50	ug/L							
Dicamba	0.19	U	0.50	ug/L							
Dichlorprop	0.28	U	0.50	ug/L							
Dinoseb	0.32	U	0.50	ug/L							
MCPA	34	U	50	ug/L							
MCPP	46	U	50	ug/L							
Pentachlorophenol	0.19	U	0.50	ug/L							
Picloram	0.23	U	0.50	ug/L							QV-01
2,4-DCAA	*1.6*			*ug/L*	*2.00*		*78*	*68-139*			

LCS (4L30037-BS1) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 20:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.8		0.50	ug/L	2.00		89	70-114			
2,4-D	1.6		0.50	ug/L	2.00		80	37-129			
2,4-DB	2.7		0.50	ug/L	2.00		134	49-144			
Bentazon	1.1		0.50	ug/L	2.00		55	37-141			
Dalapon	1.1		0.50	ug/L	2.00		57	18-121			
Dicamba	1.5		0.50	ug/L	2.00		74	36-143			
Picloram	1.4		0.50	ug/L	2.00		72	36-127			J-04
2,4-DCAA	*2.0*			*ug/L*	*2.00*		*98*	*68-139*			

Matrix Spike (4L30037-MS1) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 20:35

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.7		0.50	ug/L	2.00	0.44 U	86	70-114			
2,4-D	1.4		0.50	ug/L	2.00	0.27 U	71	37-129			
2,4-DB	1.7		0.50	ug/L	2.00	0.35 U	83	49-144			
Bentazon	1.0		0.50	ug/L	2.00	0.22 U	52	37-141			
Dalapon	0.90		0.50	ug/L	2.00	0.49 U	45	18-121			

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 4L30037 - EPA 3510C - Continued

Matrix Spike (4L30037-MS1) Continued Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 20:35

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Dicamba	1.3		0.50	ug/L	2.00	0.19 U	67	36-143			
Picloram	1.3		0.50	ug/L	2.00	0.23 U	66	36-127			J-04
2,4-DCAA	*1.7*			*ug/L*	*2.00*		*84*	*68-139*			

Matrix Spike Dup (4L30037-MSD1) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 21:01

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	2.1		0.50	ug/L	2.00	0.44 U	103	70-114	17	15	QM-11
2,4-D	1.9		0.50	ug/L	2.00	0.27 U	97	37-129	31	33	
2,4-DB	1.8		0.50	ug/L	2.00	0.35 U	92	49-144	10	36	
Bentazon	1.4		0.50	ug/L	2.00	0.22 U	71	37-141	31	22	QM-11
Dalapon	1.4		0.50	ug/L	2.00	0.49 U	69	18-121	42	49	
Dicamba	1.7		0.50	ug/L	2.00	0.19 U	85	36-143	23	24	
Picloram	1.5		0.50	ug/L	2.00	0.23 U	76	36-127	14	16	J-04
2,4-DCAA	*1.7*			*ug/L*	*2.00*		*87*	*68-139*			

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 4L26003 - EPA 3050B

Blank (4L26003-BLK1) Prepared: 12/26/2014 08:57 Analyzed: 12/30/2014 11:53

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.712	U	1.00	mg/kg wet							

LCS (4L26003-BS1) Prepared: 12/26/2014 08:57 Analyzed: 12/30/2014 11:56

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	44.4		0.962	mg/kg wet	48.1		92	80-120			

Matrix Spike (4L26003-MS1) Prepared: 12/26/2014 08:57 Analyzed: 12/30/2014 11:58

Source: B405662-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	49.2		1.09	mg/kg dry	54.3	0.517	91	75-125			

Matrix Spike Dup (4L26003-MSD1) Prepared: 12/26/2014 08:57 Analyzed: 12/30/2014 12:00

Source: B405662-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	46.7		1.02	mg/kg dry	50.8	0.517	92	75-125	5	30	

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4L30003 - EPA 3005A

Blank (4L30003-BLK1) Prepared: 12/30/2014 09:00 Analyzed: 12/31/2014 11:27

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL DATA

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4L30003 - EPA 3005A - Continued

Blank (4L30003-BLK1) Continued Prepared: 12/30/2014 09:00 Analyzed: 12/31/2014 11:27

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	7.12	U	10.0	ug/L							

LCS (4L30003-BS1) Prepared: 12/30/2014 09:00 Analyzed: 12/31/2014 11:30

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	482		10.0	ug/L	500		96	80-120			

Matrix Spike (4L30003-MS1) Prepared: 12/30/2014 09:00 Analyzed: 12/31/2014 11:32

Source: B405675-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	485		10.0	ug/L	500	8.40	95	75-125			

Matrix Spike Dup (4L30003-MSD1) Prepared: 12/30/2014 09:00 Analyzed: 12/31/2014 11:34

Source: B405675-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	490		10.0	ug/L	500	8.40	96	75-125	1	20	

FLAGS/NOTES AND DEFINITIONS

PQL	PQL: Practical Quantitation Limit.
B	Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
I	The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
J	Estimated value.
K	Off-scale low; Actual value is known to be less than the value given.
L	Off-scale high; Actual value is known to be greater than value given.
M	Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample exceeded the accepted holding time.
T	Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC); the numeric value represents the filtration volume.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not reported due to interference.
J-04	Result estimated, calibration verification standard failed with high bias.
J-05	Result estimated, calibration verification standard failed with low bias.
QL-02	The associated laboratory control sample exhibited high bias; since the result is ND, the impact on data quality is minimal.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-11	Precision between duplicate matrix spikes of the same sample was outside acceptance limits.
QS-03	Surrogate recovery outside acceptance limits
QV-01	The associated continuing calibration verification standard exhibited high bias; since the result is ND, the impact on data quality is minimal.

ENCO

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 211
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

www.encolabs.com

Client Name	GEC
Address	919 Lake Baldwin Ln
City/ST/Zip	Orlando, Fl 32814
Tel	407-898-1818
Fax	407-898-1831
Sampler(s) Name, Affiliation (Print)	Jerry W. Governale
Sampler(s) Signature	[signature]
Project Number	
Project Name/Desc	I-4 Level II
PO # / Billing Info	
Reporting Contact	Rich McCormick
Billing Contact	
Site Location / Time Zone	

Requested Analyses: 8081B Pesticides; 8151A Herbicides; % Solids / 8081B (pests) 8151A Herb

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due __/__/__

Lab Workorder: A407603

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8081B Pesticides	8151A Herbicides	% Solids / 8081B (pests) 8151A Herb		Sample Comments
1	TMW-7	12/23/14	1350	Grab	GW	2	X	X			RJC
2	CS-25	12/23/14	1230	Comp	SO	1			X	X	12/23/2014
3	CS-23	12/23/14	1213	Comp	SO	1			X	X	
4	CS-24	12/23/14	1220	Comp	SO	1			X	X	
5	CS-22	12/22/14	1630	Comp	SO	1			X	X	
6	CS-21	12/22/14	1625	Comp	SO	1			X	X	

7 <-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
		Jerry W. Governale	12/23/14	Jerry W. Governale	12/10/14 1600
Comments/Special Reporting Requirements		Relinquished By: [signature]	12/23/14	Received By: [signature]	12/10/14 1600
		Relinquished By		Received By: Brandy Hart	12/23/14 1600

Cooler #'s & Temps on Receipt: Cg-66 1°C

Condition Upon Receipt: X Acceptable ___ Unacceptable

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

R. Call 12/23/2014 1600

ENCO Laboratories
Accurate. Timely. Responsive. Innovative.

10775 Central Port Drive
Orlando FL, 32824
Phone: 407.826.5314 FAX: 407.850.6945

Tuesday, January 13, 2015
Geotechnical and Environmental (GE002)
Attn: Richard McCormick
919 Lake Baldwin Lane
Orlando, FL 32814

RE: Laboratory Results for
Project Number: 3492E, Project Name/Desc: I-4 Level II
ENCO Workorder(s): A407685

Dear Richard McCormick,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, December 30, 2014.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Orlando. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Ronald Wambles For David Camacho

Project Manager

Enclosure(s)

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: CS-26 **Lab ID: A407685-01** **Sampled: 12/29/14 13:30** **Received: 12/30/14 16:06**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/27/15		01/05/15	09:05	01/06/15 13:09
EPA 8081B	01/12/15	02/09/15	12/31/14	12:10	01/09/15 22:25
EPA 8151A	01/12/15	02/14/15	01/05/15	08:00	01/12/15 04:56

Client ID: CS-27 **Lab ID: A407685-02** **Sampled: 12/29/14 13:35** **Received: 12/30/14 16:06**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/27/15		01/05/15	09:05	01/06/15 13:12
EPA 8081B	01/12/15	02/09/15	12/31/14	12:10	01/09/15 22:36
EPA 8151A	01/12/15	02/14/15	01/05/15	08:00	01/12/15 05:22

Client ID: TMW-8 **Lab ID: A407685-03** **Sampled: 12/29/14 14:20** **Received: 12/30/14 16:06**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/27/15		01/05/15	14:04	01/06/15 11:14
EPA 8081B	01/05/15	02/09/15	12/31/14	05:35	01/07/15 16:27
EPA 8151A	01/05/15	02/08/15	12/30/14	21:30	01/12/15 22:44

Client ID: TMW-9 **Lab ID: A407685-04** **Sampled: 12/30/14 12:55** **Received: 12/30/14 16:06**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	06/28/15		12/31/14	09:13	01/05/15 13:43
EPA 7470A	01/27/15		01/06/15	12:07	01/07/15 08:21
EPA 8081B	01/06/15	02/09/15	12/31/14	05:35	01/07/15 16:38
EPA 8082A	12/30/15	12/30/15	12/31/14	05:35	01/08/15 09:44
EPA 8260B	01/13/15		01/07/15	00:00	01/07/15 18:37
EPA 8270D	01/06/15	02/11/15	01/02/15	10:54	01/11/15 00:25
EPA 8270D	01/06/15	02/09/15	12/31/14	07:30	01/05/15 17:26
FL-PRO	01/06/15	02/09/15	12/31/14	10:11	12/31/14 18:54

SAMPLE DETECTION SUMMARY

Client ID: TMW-9 **Lab ID:** A407685-04

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	51.1		0.630	10.0	ug/L	EPA 6010C	

ANALYTICAL RESULTS

Description: CS-26 | **Lab Sample ID:** A407685-01 | **Received:** 12/30/14 16:06
Matrix: Soil | **Sampled:** 12/29/14 13:30 | **Work Order:** A407685
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 77.17

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
4,4'-DDE [72-55-9]^	0.0013	U	mg/kg dry	2	0.0013	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
4,4'-DDT [50-29-3]^	0.0017	U	mg/kg dry	2	0.0017	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Aldrin [309-00-2]^	0.0013	U	mg/kg dry	2	0.0013	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
alpha-BHC [319-84-6]^	0.0015	U	mg/kg dry	2	0.0015	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	QM-11
beta-BHC [319-85-7]^	0.0026	U	mg/kg dry	2	0.0026	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Chlordane (tech) [12789-03-6]^	0.022	U	mg/kg dry	2	0.022	0.086	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Chlordane-alpha [5103-71-9]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Chlordane-gamma [5566-34-7]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
delta-BHC [319-86-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	QM-11
Dieldrin [60-57-1]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Endosulfan I [959-98-8]^	0.0010	U	mg/kg dry	2	0.0010	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	QM-11
Endosulfan II [33213-65-9]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Endosulfan sulfate [1031-07-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Endrin [72-20-8]^	0.0019	U	mg/kg dry	2	0.0019	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Endrin aldehyde [7421-93-4]^	0.0022	U	mg/kg dry	2	0.0022	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Endrin ketone [53494-70-5]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
gamma-BHC [58-89-9]^	0.0016	U	mg/kg dry	2	0.0016	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Heptachlor [76-44-8]^	0.0016	U	mg/kg dry	2	0.0016	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Heptachlor epoxide [1024-57-3]^	0.0012	U	mg/kg dry	2	0.0012	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Isodrin [465-73-6]^	0.0016	U	mg/kg dry	2	0.0016	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Methoxychlor [72-43-5]^	0.0022	U	mg/kg dry	2	0.0022	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Mirex [2385-85-5]^	0.0029	U	mg/kg dry	2	0.0029	0.0044	4L31021	EPA 8081B	01/09/15 22:25	JJB	
Toxaphene [8001-35-2]^	0.044	U	mg/kg dry	2	0.044	0.086	4L31021	EPA 8081B	01/09/15 22:25	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.027*	*2*	*0.0431*	*63 %*	*20-137*	*4L31021*	*EPA 8081B*	*01/09/15 22:25*	*JJB*	
Decachlorobiphenyl	*0.030*	*2*	*0.0431*	*71 %*	*13-183*	*4L31021*	*EPA 8081B*	*01/09/15 22:25*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.0032	U	mg/kg dry	1	0.0032	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
2,4,5-TP (Silvex) [93-72-1]^	0.0061	U	mg/kg dry	1	0.0061	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
2,4-D [94-75-7]^	0.013	U	mg/kg dry	1	0.013	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
2,4-DB [94-82-6]^	0.0063	U	mg/kg dry	1	0.0063	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
3,5-DCBA [51-365-5]^	0.0029	U	mg/kg dry	1	0.0029	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
4-Nitrophenol [100-02-7]^	0.0084	U	mg/kg dry	1	0.0084	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
Acifluorfen [50594-66-6]^	0.0021	U	mg/kg dry	1	0.0021	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
Bentazon [25057-89-0]^	0.0058	U	mg/kg dry	1	0.0058	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	J-02
Chloramben [133-90-4]^	0.0051	U	mg/kg dry	1	0.0051	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
Dacthal [1861-32-1]^	0.0031	U	mg/kg dry	1	0.0031	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
Dalapon [75-99-0]^	0.0065	U	mg/kg dry	1	0.0065	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
Dicamba [1918-00-9]^	0.0030	U	mg/kg dry	1	0.0030	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
Dichlorprop [120-36-5]^	0.0036	U	mg/kg dry	1	0.0036	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
Dinoseb [88-85-7]^	0.0054	U	mg/kg dry	1	0.0054	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
MCPA [94-74-6]^	0.67	U	mg/kg dry	1	0.67	1.3	5A05004	EPA 8151A	01/12/15 04:56	RC	
MCPP [93-65-2]^	0.69	U	mg/kg dry	1	0.69	1.3	5A05004	EPA 8151A	01/12/15 04:56	RC	

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ANALYTICAL RESULTS

Description: CS-26 | **Lab Sample ID:** A407685-01 | **Received:** 12/30/14 16:06

Matrix: Soil | **Sampled:** 12/29/14 13:30 | **Work Order:** A407685

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 77.17

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Pentachlorophenol [87-86-5]^	0.0032	U	mg/kg dry	1	0.0032	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	
Picloram [1918-02-1]^	0.0023	U	mg/kg dry	1	0.0023	0.013	5A05004	EPA 8151A	01/12/15 04:56	RC	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*0.039*	*1*	*0.0516*	*76 %*	*39-174*	*5A05004*	*EPA 8151A*	*01/12/15 04:56*	*RC*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.659	U	mg/kg dry	1	0.659	0.926	5A05002	EPA 6010C	01/06/15 13:09	ACV	

ANALYTICAL RESULTS

Description: CS-27 | **Lab Sample ID:** A407685-02 | **Received:** 12/30/14 16:06
Matrix: Soil | **Sampled:** 12/29/14 13:35 | **Work Order:** A407685
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 73.42

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
4,4'-DDE [72-55-9]^	0.0014	U	mg/kg dry	2	0.0014	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
4,4'-DDT [50-29-3]^	0.0018	U	mg/kg dry	2	0.0018	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Aldrin [309-00-2]^	0.0014	U	mg/kg dry	2	0.0014	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
alpha-BHC [319-84-6]^	0.0015	U	mg/kg dry	2	0.0015	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
beta-BHC [319-85-7]^	0.0027	U	mg/kg dry	2	0.0027	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Chlordane (tech) [12789-03-6]^	0.023	U	mg/kg dry	2	0.023	0.090	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Chlordane-alpha [5103-71-9]^	0.0012	U	mg/kg dry	2	0.0012	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Chlordane-gamma [5566-34-7]^	0.0012	U	mg/kg dry	2	0.0012	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
delta-BHC [319-86-8]^	0.0014	U	mg/kg dry	2	0.0014	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Dieldrin [60-57-1]^	0.0012	U	mg/kg dry	2	0.0012	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Endosulfan I [959-98-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Endosulfan II [33213-65-9]^	0.0013	U	mg/kg dry	2	0.0013	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Endosulfan sulfate [1031-07-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Endrin [72-20-8]^	0.0020	U	mg/kg dry	2	0.0020	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Endrin aldehyde [7421-93-4]^	0.0023	U	mg/kg dry	2	0.0023	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Endrin ketone [53494-70-5]^	0.0013	U	mg/kg dry	2	0.0013	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
gamma-BHC [58-89-9]^	0.0016	U	mg/kg dry	2	0.0016	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Heptachlor [76-44-8]^	0.0017	U	mg/kg dry	2	0.0017	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Heptachlor epoxide [1024-57-3]^	0.0013	U	mg/kg dry	2	0.0013	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Isodrin [465-73-6]^	0.0017	U	mg/kg dry	2	0.0017	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Methoxychlor [72-43-5]^	0.0023	U	mg/kg dry	2	0.0023	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Mirex [2385-85-5]^	0.0030	U	mg/kg dry	2	0.0030	0.0046	4L31021	EPA 8081B	01/09/15 22:36	JJB	
Toxaphene [8001-35-2]^	0.046	U	mg/kg dry	2	0.046	0.090	4L31021	EPA 8081B	01/09/15 22:36	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.030*	*2*	*0.0459*	*64 %*	*20-137*	*4L31021*	*EPA 8081B*	*01/09/15 22:36*	*JJB*	
Decachlorobiphenyl	*0.038*	*2*	*0.0459*	*82 %*	*13-183*	*4L31021*	*EPA 8081B*	*01/09/15 22:36*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.0034	U	mg/kg dry	1	0.0034	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
2,4,5-TP (Silvex) [93-72-1]^	0.0064	U	mg/kg dry	1	0.0064	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
2,4-D [94-75-7]^	0.013	U	mg/kg dry	1	0.013	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
2,4-DB [94-82-6]^	0.0067	U	mg/kg dry	1	0.0067	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
3,5-DCBA [51-365-5]^	0.0030	U	mg/kg dry	1	0.0030	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
4-Nitrophenol [100-02-7]^	0.0089	U	mg/kg dry	1	0.0089	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
Acifluorfen [50594-66-6]^	0.0022	U	mg/kg dry	1	0.0022	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
Bentazon [25057-89-0]^	0.0061	U	mg/kg dry	1	0.0061	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	J-02
Chloramben [133-90-4]^	0.0053	U	mg/kg dry	1	0.0053	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
Dacthal [1861-32-1]^	0.0033	U	mg/kg dry	1	0.0033	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
Dalapon [75-99-0]^	0.0068	U	mg/kg dry	1	0.0068	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
Dicamba [1918-00-9]^	0.0031	U	mg/kg dry	1	0.0031	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
Dichlorprop [120-36-5]^	0.0038	U	mg/kg dry	1	0.0038	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
Dinoseb [88-85-7]^	0.0057	U	mg/kg dry	1	0.0057	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
MCPA [94-74-6]^	0.71	U	mg/kg dry	1	0.71	1.4	5A05004	EPA 8151A	01/12/15 05:22	RC	
MCPP [93-65-2]^	0.72	U	mg/kg dry	1	0.72	1.4	5A05004	EPA 8151A	01/12/15 05:22	RC	

ANALYTICAL RESULTS

Description: CS-27 | **Lab Sample ID:** A407685-02 | **Received:** 12/30/14 16:06

Matrix: Soil | **Sampled:** 12/29/14 13:35 | **Work Order:** A407685

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 73.42

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Pentachlorophenol [87-86-5]^	0.0034	U	mg/kg dry	1	0.0034	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	
Picloram [1918-02-1]^	0.0025	U	mg/kg dry	1	0.0025	0.014	5A05004	EPA 8151A	01/12/15 05:22	RC	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*0.040*	*1*	*0.0547*	*72 %*	*39-174*	*5A05004*	*EPA 8151A*	*01/12/15 05:22*	*RC*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.485	U	mg/kg dry	1	0.485	0.681	5A05002	EPA 6010C	01/06/15 13:12	ACV	

ANALYTICAL RESULTS

Description: TMW-8 **Lab Sample ID:** A407685-03 **Received:** 12/30/14 16:06
Matrix: Ground Water **Sampled:** 12/29/14 14:20 **Work Order:** A407685
Project: I-4 Level II **Sampled By:** Jerry Governale

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
4,4'-DDE [72-55-9]^	0.036	U	ug/L	1	0.036	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
4,4'-DDT [50-29-3]^	0.025	U	ug/L	1	0.025	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Aldrin [309-00-2]^	0.032	U	ug/L	1	0.032	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
alpha-BHC [319-84-6]^	0.026	U	ug/L	1	0.026	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
beta-BHC [319-85-7]^	0.022	U	ug/L	1	0.022	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Chlordane (tech) [12789-03-6]^	0.32	U	ug/L	1	0.32	0.50	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Chlordane-alpha [5103-71-9]^	0.022	U	ug/L	1	0.022	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Chlordane-gamma [5566-34-7]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
delta-BHC [319-86-8]^	0.019	U	ug/L	1	0.019	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Dieldrin [60-57-1]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Endosulfan I [959-98-8]^	0.016	U	ug/L	1	0.016	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Endosulfan II [33213-65-9]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Endosulfan sulfate [1031-07-8]^	0.016	U	ug/L	1	0.016	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Endrin [72-20-8]^	0.014	U	ug/L	1	0.014	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Endrin aldehyde [7421-93-4]^	0.020	U	ug/L	1	0.020	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Endrin ketone [53494-70-5]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
gamma-BHC [58-89-9]^	0.020	U	ug/L	1	0.020	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Heptachlor [76-44-8]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Heptachlor epoxide [1024-57-3]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Isodrin [465-73-6]^	0.030	U	ug/L	1	0.030	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Methoxychlor [72-43-5]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Mirex [2385-85-5]^	0.034	U	ug/L	1	0.034	0.050	4L30007	EPA 8081B	01/07/15 16:27	JJB	
Toxaphene [8001-35-2]^	0.48	U	ug/L	1	0.48	0.50	4L30007	EPA 8081B	01/07/15 16:27	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.82*	*1*	*1.00*	*82 %*	*38-142*	*4L30007*	*EPA 8081B*	*01/07/15 16:27*	*JJB*	
Decachlorobiphenyl	*1.1*	*1*	*1.00*	*106 %*	*34-159*	*4L30007*	*EPA 8081B*	*01/07/15 16:27*	*JJB*	

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5]^	0.28	U	ug/L	1	0.28	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	QV-01
2,4,5-TP (Silvex) [93-72-1]^	0.44	U	ug/L	1	0.44	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
2,4-D [94-75-7]^	0.27	U	ug/L	1	0.27	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
2,4-DB [94-82-6]^	0.35	U	ug/L	1	0.35	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
3,5-DCBA [51-365-5]^	0.36	U	ug/L	1	0.36	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
4-Nitrophenol [100-02-7]^	0.32	U	ug/L	1	0.32	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Acifluorfen [50594-66-6]^	0.45	U	ug/L	1	0.45	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Bentazon [25057-89-0]^	0.22	U	ug/L	1	0.22	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Chloramben [133-90-4]^	0.43	U	ug/L	1	0.43	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Dacthal [1861-32-1]^	0.23	U	ug/L	1	0.23	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Dalapon [75-99-0]^	0.49	U	ug/L	1	0.49	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Dicamba [1918-00-9]^	0.19	U	ug/L	1	0.19	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Dichlorprop [120-36-5]^	0.28	U	ug/L	1	0.28	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Dinoseb [88-85-7]^	0.32	U	ug/L	1	0.32	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
MCPA [94-74-6]^	34	U	ug/L	1	34	50	4L30037	EPA 8151A	01/12/15 22:44	RC	
MCPP [7085-19-0]^	46	U	ug/L	1	46	50	4L30037	EPA 8151A	01/12/15 22:44	RC	

ANALYTICAL RESULTS

Description: TMW-8 | **Lab Sample ID:** A407685-03 | **Received:** 12/30/14 16:06
Matrix: Ground Water | **Sampled:** 12/29/14 14:20 | **Work Order:** A407685
Project: I-4 Level II | **Sampled By:** Jerry Governale

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Pentachlorophenol [87-86-5]^	0.19	U	ug/L	1	0.19	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	
Picloram [1918-02-1]^	0.23	U	ug/L	1	0.23	0.50	4L30037	EPA 8151A	01/12/15 22:44	RC	QV-01

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.4*	*1*	*2.00*	*70 %*	*68-139*	*4L30037*	*EPA 8151A*	*01/12/15 22:44*	*RC*	

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	7.12	U	ug/L	1	7.12	10.0	5A05003	EPA 6010C	01/06/15 11:14	ACV	

ANALYTICAL RESULTS

Description: TMW-9 **Lab Sample ID:** A407685-04 **Received:** 12/30/14 16:06

Matrix: Ground Water **Sampled:** 12/30/14 12:55 **Work Order:** A407685

Project: I-4 Level II **Sampled By:** Jerry Governale

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6]^	0.61	U	ug/L	1	0.61	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,1,1-Trichloroethane [71-55-6]^	0.80	U	ug/L	1	0.80	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,1,2,2-Tetrachloroethane [79-34-5]^	0.54	U	ug/L	1	0.54	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,1,2-Trichloroethane [79-00-5]^	0.76	U	ug/L	1	0.76	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,1-Dichloroethane [75-34-3]^	0.62	U	ug/L	1	0.62	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,1-Dichloroethene [75-35-4]^	0.94	U	ug/L	1	0.94	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,1-Dichloropropene [563-58-6]^	0.74	U	ug/L	1	0.74	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2,3-Trichlorobenzene [87-61-6]^	0.86	U	ug/L	1	0.86	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2,3-Trichloropropane [96-18-4]^	0.64	U	ug/L	1	0.64	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2,4-Trichlorobenzene [120-82-1]^	0.70	U	ug/L	1	0.70	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2,4-Trimethylbenzene [95-63-6]^	0.69	U	ug/L	1	0.69	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2-Dibromo-3-chloropropane [96-12-8]^	0.96	U	ug/L	1	0.96	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2-Dibromoethane [106-93-4]^	0.78	U	ug/L	1	0.78	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2-Dichlorobenzene [95-50-1]^	0.73	U	ug/L	1	0.73	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2-Dichloroethane [107-06-2]^	0.63	U	ug/L	1	0.63	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,2-Dichloropropane [78-87-5]^	0.80	U	ug/L	1	0.80	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,3,5-Trimethylbenzene [108-67-8]^	0.58	U	ug/L	1	0.58	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,3-Dichlorobenzene [541-73-1]^	0.77	U	ug/L	1	0.77	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,3-Dichloropropane [142-28-9]^	0.60	U	ug/L	1	0.60	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
1,4-Dichlorobenzene [106-46-7]^	0.76	U	ug/L	1	0.76	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
2,2-Dichloropropane [594-20-7]^	0.66	U	ug/L	1	0.66	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
2-Butanone [78-93-3]^	4.5	U	ug/L	1	4.5	5.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
2-Chloroethyl Vinyl Ether [110-75-8]^	1.9	U	ug/L	1	1.9	5.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
2-Chlorotoluene [95-49-8]^	0.68	U	ug/L	1	0.68	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
2-Hexanone [591-78-6]^	1.4	U	ug/L	1	1.4	5.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
4-Chlorotoluene [106-43-4]^	0.65	U	ug/L	1	0.65	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
4-Isopropyltoluene [99-87-6]^	0.80	U	ug/L	1	0.80	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
4-Methyl-2-pentanone [108-10-1]^	0.79	U	ug/L	1	0.79	5.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	QL-02
Acetone [67-64-1]^	5.0	U	ug/L	1	5.0	10	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Benzene [71-43-2]^	0.71	U	ug/L	1	0.71	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Bromobenzene [108-86-1]^	0.77	U	ug/L	1	0.77	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Bromochloromethane [74-97-5]^	0.94	U	ug/L	1	0.94	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Bromodichloromethane [75-27-4]^	0.52	U	ug/L	1	0.52	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Bromoform [75-25-2]^	0.75	U	ug/L	1	0.75	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Bromomethane [74-83-9]^	0.95	U	ug/L	1	0.95	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Carbon disulfide [75-15-0]^	2.6	U	ug/L	1	2.6	5.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Carbon tetrachloride [56-23-5]^	0.94	U	ug/L	1	0.94	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Chlorobenzene [108-90-7]^	0.72	U	ug/L	1	0.72	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Chloroethane [75-00-3]^	0.98	U	ug/L	1	0.98	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	QV-01
Chloroform [67-66-3]^	0.80	U	ug/L	1	0.80	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Chloromethane [74-87-3]^	0.82	U	ug/L	1	0.82	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	QV-01
cis-1,2-Dichloroethene [156-59-2]^	0.53	U	ug/L	1	0.53	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
cis-1,3-Dichloropropene [10061-01-5]^	0.59	U	ug/L	1	0.59	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Dibromochloromethane [124-48-1]^	0.44	U	ug/L	1	0.44	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Dibromomethane [74-95-3]^	0.84	U	ug/L	1	0.84	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Dichlorodifluoromethane [75-71-8]^	0.74	U	ug/L	1	0.74	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Ethylbenzene [100-41-4]^	0.69	U	ug/L	1	0.69	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Hexachlorobutadiene [87-68-3]^	0.70	U	ug/L	1	0.70	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	

ANALYTICAL RESULTS

Description: TMW-9 **Lab Sample ID:** A407685-04 **Received:** 12/30/14 16:06
Matrix: Ground Water **Sampled:** 12/30/14 12:55 **Work Order:** A407685
Project: I-4 Level II **Sampled By:** Jerry Governale

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Isopropylbenzene [98-82-8]^	0.67	U	ug/L	1	0.67	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
m,p-Xylenes [108-38-3/106-42-3]^	1.3	U	ug/L	1	1.3	2.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Methylene chloride [75-09-2]^	2.0	U	ug/L	1	2.0	5.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Methyl-tert-Butyl Ether [1634-04-4]^	0.60	U	ug/L	1	0.60	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Naphthalene [91-20-3]^	0.82	U	ug/L	1	0.82	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
n-Butyl Benzene [104-51-8]^	0.70	U	ug/L	1	0.70	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
n-Propyl Benzene [103-65-1]^	0.70	U	ug/L	1	0.70	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
o-Xylene [95-47-6]^	0.53	U	ug/L	1	0.53	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
sec-Butylbenzene [135-98-8]^	0.74	U	ug/L	1	0.74	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Styrene [100-42-5]^	0.61	U	ug/L	1	0.61	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
tert-Butylbenzene [98-06-6]^	0.64	U	ug/L	1	0.64	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Tetrachloroethene [127-18-4]^	0.76	U	ug/L	1	0.76	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Toluene [108-88-3]^	0.72	U	ug/L	1	0.72	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
trans-1,2-Dichloroethene [156-60-5]^	0.73	U	ug/L	1	0.73	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
trans-1,3-Dichloropropene [10061-02-6]^	0.73	U	ug/L	1	0.73	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Trichloroethene [79-01-6]^	0.89	U	ug/L	1	0.89	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Trichlorofluoromethane [75-69-4]^	0.94	U	ug/L	1	0.94	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Vinyl chloride [75-01-4]^	0.71	U	ug/L	1	0.71	1.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	
Xylenes (Total) [1330-20-7]^	1.3	U	ug/L	1	1.3	2.0	5A07019	EPA 8260B	01/07/15 18:37	KKW	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*66*	*1*	*50.0*	*133 %*	*41-142*	*5A07019*	*EPA 8260B*	*01/07/15 18:37*	*KKW*	
Dibromofluoromethane	*46*	*1*	*50.0*	*92 %*	*53-146*	*5A07019*	*EPA 8260B*	*01/07/15 18:37*	*KKW*	
Toluene-d8	*52*	*1*	*50.0*	*105 %*	*41-146*	*5A07019*	*EPA 8260B*	*01/07/15 18:37*	*KKW*	

Tentatively Identified Compounds by Volatile GCMS

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Tentatively Identified Compounds	**0.0**		ug/L	1			5A07019	EPA 8260B	01/07/15 18:37	KKW	

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,2,4-Trichlorobenzene [120-82-1]^	3.3	U	ug/L	1	3.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
1,2-Dichlorobenzene [95-50-1]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
1,3-Dichlorobenzene [541-73-1]^	3.4	U	ug/L	1	3.4	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
1,4-Dichlorobenzene [106-46-7]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
1-Methylnaphthalene [90-12-0]^	3.1	U	ug/L	1	3.1	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2,4,5-Trichlorophenol [95-95-4]^	3.9	U	ug/L	1	3.9	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2,4,6-Trichlorophenol [88-06-2]^	6.4	U	ug/L	1	6.4	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2,4-Dichlorophenol [120-83-2]^	6.5	U	ug/L	1	6.5	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2,4-Dimethylphenol [105-67-9]^	6.4	U	ug/L	1	6.4	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2,4-Dinitrophenol [51-28-5]^	7.7	U	ug/L	1	7.7	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2,4-Dinitrotoluene [121-14-2]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2,6-Dinitrotoluene [606-20-2]^	2.9	U	ug/L	1	2.9	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2-Chloronaphthalene [91-58-7]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2-Chlorophenol [95-57-8]^	7.4	U	ug/L	1	7.4	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2-Methyl-4,6-dinitrophenol [534-52-1]^	6.0	U	ug/L	1	6.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2-Methylnaphthalene [91-57-6]^	3.8	U	ug/L	1	3.8	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	

ANALYTICAL RESULTS

Description: TMW-9 **Lab Sample ID:** A407685-04 **Received:** 12/30/14 16:06

Matrix: Ground Water **Sampled:** 12/30/14 12:55 **Work Order:** A407685

Project: I-4 Level II **Sampled By:** Jerry Governale

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2-Methylphenol [95-48-7]^	3.5	U	ug/L	1	3.5	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2-Nitroaniline [88-74-4]^	3.3	U	ug/L	1	3.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
2-Nitrophenol [88-75-5]^	5.2	U	ug/L	1	5.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
3 & 4-Methylphenol [108-39-4/106-44-5]^	8.2	U	ug/L	1	8.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
3,3'-Dichlorobenzidine [91-94-1]^	3.3	U	ug/L	1	3.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
3-Nitroaniline [99-09-2]^	3.3	U	ug/L	1	3.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
4-Bromophenyl-phenylether [101-55-3]^	3.3	U	ug/L	1	3.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
4-Chloro-3-methylphenol [59-50-7]^	7.3	U	ug/L	1	7.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
4-Chloroaniline [106-47-8]^	4.3	U	ug/L	1	4.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
4-Chlorophenyl-phenylether [7005-72-3]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
4-Nitroaniline [100-01-6]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
4-Nitrophenol [100-02-7]^	7.9	U	ug/L	1	7.9	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Acenaphthene [83-32-9]^	3.0	U	ug/L	1	3.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Acenaphthylene [208-96-8]^	3.3	U	ug/L	1	3.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Anthracene [120-12-7]^	3.0	U	ug/L	1	3.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Benzidine [92-87-5]^	7.1	U	ug/L	1	7.1	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	J-02, J-05
Benzo(a)anthracene [56-55-3]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Benzo(a)pyrene [50-32-8]^	3.1	U	ug/L	1	3.1	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Benzo(b)fluoranthene [205-99-2]^	3.4	U	ug/L	1	3.4	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Benzo(g,h,i)perylene [191-24-2]^	3.7	U	ug/L	1	3.7	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Benzo(k)fluoranthene [207-08-9]^	3.3	U	ug/L	1	3.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Benzoic acid [65-85-0]^	15	U	ug/L	1	15	50	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Benzyl alcohol [100-51-6]^	3.9	U	ug/L	1	3.9	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Bis(2-chloroethoxy)methane [111-91-1]^	3.3	U	ug/L	1	3.3	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	QV-01
Bis(2-chloroethyl)ether [111-44-4]^	3.8	U	ug/L	1	3.8	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Bis(2-chloroisopropyl)ether [108-60-1]^	3.5	U	ug/L	1	3.5	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Bis(2-ethylhexyl)phthalate [117-81-7]^	3.5	U	ug/L	1	3.5	5.0	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Butylbenzylphthalate [85-68-7]^	5.1	U	ug/L	1	5.1	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Chrysene [218-01-9]^	3.0	U	ug/L	1	3.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	3.8	U	ug/L	1	3.8	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Dibenzofuran [132-64-9]^	2.8	U	ug/L	1	2.8	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Diethylphthalate [84-66-2]^	3.0	U	ug/L	1	3.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Dimethylphthalate [131-11-3]^	3.0	U	ug/L	1	3.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Di-n-butylphthalate [84-74-2]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Di-n-octylphthalate [117-84-0]^	3.6	U	ug/L	1	3.6	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	QL-02
Fluoranthene [206-44-0]^	4.0	U	ug/L	1	4.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Fluorene [86-73-7]^	2.9	U	ug/L	1	2.9	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Hexachlorobenzene [118-74-1]^	3.0	U	ug/L	1	3.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Hexachlorobutadiene [87-68-3]^	4.1	U	ug/L	1	4.1	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Hexachlorocyclopentadiene [77-47-4]^	3.8	U	ug/L	1	3.8	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Hexachloroethane [67-72-1]^	3.0	U	ug/L	1	3.0	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	4.1	U	ug/L	1	4.1	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Isophorone [78-59-1]^	4.5	U	ug/L	1	4.5	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Naphthalene [91-20-3]^	3.6	U	ug/L	1	3.6	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Nitrobenzene [98-95-3]^	3.2	U	ug/L	1	3.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
N-Nitrosodimethylamine [62-75-9]^	3.8	U	ug/L	1	3.8	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
N-Nitroso-di-n-propylamine [621-64-7]^	4.5	U	ug/L	1	4.5	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	

ANALYTICAL RESULTS

Description: TMW-9 **Lab Sample ID:** A407685-04 **Received:** 12/30/14 16:06
Matrix: Ground Water **Sampled:** 12/30/14 12:55 **Work Order:** A407685
Project: I-4 Level II **Sampled By:** Jerry Governale

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4]^	5.4	U	ug/L	1	5.4	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Pentachlorophenol [87-86-5]^	8.2	U	ug/L	1	8.2	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	QL-02
Phenanthrene [85-01-8]^	2.8	U	ug/L	1	2.8	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Phenol [108-95-2]^	5.6	U	ug/L	1	5.6	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Pyrene [129-00-0]^	4.1	U	ug/L	1	4.1	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	
Pyridine [110-86-1]^	3.5	U	ug/L	1	3.5	10	5A02003	EPA 8270D	01/11/15 00:25	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*34*	*1*	*50.0*	*68 %*	*47-128*	*5A02003*	*EPA 8270D*	*01/11/15 00:25*	*jfi*	
2-Fluorobiphenyl	*27*	*1*	*50.0*	*53 %*	*44-102*	*5A02003*	*EPA 8270D*	*01/11/15 00:25*	*jfi*	
2-Fluorophenol	*21*	*1*	*50.0*	*42 %*	*25-79*	*5A02003*	*EPA 8270D*	*01/11/15 00:25*	*jfi*	
Nitrobenzene-d5	*35*	*1*	*50.0*	*70 %*	*43-112*	*5A02003*	*EPA 8270D*	*01/11/15 00:25*	*jfi*	
Phenol-d5	*16*	*1*	*50.0*	*31 %*	*14-54*	*5A02003*	*EPA 8270D*	*01/11/15 00:25*	*jfi*	
Terphenyl-d14	*44*	*1*	*50.0*	*89 %*	*65-122*	*5A02003*	*EPA 8270D*	*01/11/15 00:25*	*jfi*	

Tentatively Identified Compounds by Semivolatile GCMS

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Tentatively Identified Compounds	**0.0**		ug/L	1			5A02003	EPA 8270D	01/11/15 00:25	jfi	

Semivolatile Organic Compounds by GCMS SIM

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1-Methylnaphthalene [90-12-0]^	0.047	U	ug/L	1	0.047	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
2-Methylnaphthalene [91-57-6]^	0.044	U	ug/L	1	0.044	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Acenaphthene [83-32-9]^	0.037	U	ug/L	1	0.037	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Acenaphthylene [208-96-8]^	0.036	U	ug/L	1	0.036	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Anthracene [120-12-7]^	0.036	U	ug/L	1	0.036	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Benzo(a)anthracene [56-55-3]^	0.037	U	ug/L	1	0.037	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Benzo(a)pyrene [50-32-8]^	0.043	U	ug/L	1	0.043	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.059	U	ug/L	1	0.059	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.040	U	ug/L	1	0.040	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.046	U	ug/L	1	0.046	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Chrysene [218-01-9]^	0.051	U	ug/L	1	0.051	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.026	U	ug/L	1	0.026	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Fluoranthene [206-44-0]^	0.051	U	ug/L	1	0.051	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Fluorene [86-73-7]^	0.038	U	ug/L	1	0.038	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.037	U	ug/L	1	0.037	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Naphthalene [91-20-3]^	0.035	U	ug/L	1	0.035	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Phenanthrene [85-01-8]^	0.039	U	ug/L	1	0.039	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	
Pyrene [129-00-0]^	0.048	U	ug/L	1	0.048	0.10	4L31004	EPA 8270D	01/05/15 17:26	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
p-Terphenyl	*5.9*	*1*	*5.71*	*103 %*	*66-136*	*4L31004*	*EPA 8270D*	*01/05/15 17:26*	*jfi*	

ANALYTICAL RESULTS

Description: TMW-9 **Lab Sample ID:** A407685-04 **Received:** 12/30/14 16:06

Matrix: Ground Water **Sampled:** 12/30/14 12:55 **Work Order:** A407685

Project: I-4 Level II **Sampled By:** Jerry Governale

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
4,4'-DDE [72-55-9]^	0.036	U	ug/L	1	0.036	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
4,4'-DDT [50-29-3]^	0.025	U	ug/L	1	0.025	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Aldrin [309-00-2]^	0.032	U	ug/L	1	0.032	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
alpha-BHC [319-84-6]^	0.026	U	ug/L	1	0.026	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
beta-BHC [319-85-7]^	0.022	U	ug/L	1	0.022	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Chlordane (tech) [12789-03-6]^	0.32	U	ug/L	1	0.32	0.50	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Chlordane-alpha [5103-71-9]^	0.022	U	ug/L	1	0.022	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Chlordane-gamma [5566-34-7]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
delta-BHC [319-86-8]^	0.019	U	ug/L	1	0.019	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Dieldrin [60-57-1]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Endosulfan I [959-98-8]^	0.016	U	ug/L	1	0.016	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Endosulfan II [33213-65-9]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Endosulfan sulfate [1031-07-8]^	0.016	U	ug/L	1	0.016	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Endrin [72-20-8]^	0.014	U	ug/L	1	0.014	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Endrin aldehyde [7421-93-4]^	0.020	U	ug/L	1	0.020	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Endrin ketone [53494-70-5]^	0.017	U	ug/L	1	0.017	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
gamma-BHC [58-89-9]^	0.020	U	ug/L	1	0.020	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Heptachlor [76-44-8]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Heptachlor epoxide [1024-57-3]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Isodrin [465-73-6]^	0.030	U	ug/L	1	0.030	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Methoxychlor [72-43-5]^	0.018	U	ug/L	1	0.018	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Mirex [2385-85-5]^	0.034	U	ug/L	1	0.034	0.050	4L30007	EPA 8081B	01/07/15 16:38	JJB	
Toxaphene [8001-35-2]^	0.48	U	ug/L	1	0.48	0.50	4L30007	EPA 8081B	01/07/15 16:38	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.86*	*1*	*1.00*	*86 %*	*38-142*	*4L30007*	*EPA 8081B*	*01/07/15 16:38*	*JJB*	
Decachlorobiphenyl	*0.99*	*1*	*1.00*	*99 %*	*34-159*	*4L30007*	*EPA 8081B*	*01/07/15 16:38*	*JJB*	

Polychlorinated Biphenyls by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9]^	0.49	U	ug/L	1	0.49	0.50	4L31005	EPA 8082A	01/08/15 09:44	JJB	
PCB-1221 [11104-28-2]^	0.46	U	ug/L	1	0.46	0.50	4L31005	EPA 8082A	01/08/15 09:44	JJB	
PCB-1232 [11141-16-5]^	0.47	U	ug/L	1	0.47	0.50	4L31005	EPA 8082A	01/08/15 09:44	JJB	
PCB-1248 [12672-29-6]^	0.49	U	ug/L	1	0.49	0.50	4L31005	EPA 8082A	01/08/15 09:44	JJB	
PCB-1254 [11097-69-1]^	0.50	U	ug/L	1	0.50	0.50	4L31005	EPA 8082A	01/08/15 09:44	JJB	
PCB-1260 [11096-82-5]^	0.48	U	ug/L	1	0.48	0.50	4L31005	EPA 8082A	01/08/15 09:44	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*1.0*	*1*	*1.00*	*100 %*	*38-142*	*4L31005*	*EPA 8082A*	*01/08/15 09:44*	*JJB*	
Decachlorobiphenyl	*1.2*	*1*	*1.00*	*120 %*	*34-159*	*4L31005*	*EPA 8082A*	*01/08/15 09:44*	*JJB*	

ANALYTICAL RESULTS

Description: TMW-9 **Lab Sample ID:** A407685-04 **Received:** 12/30/14 16:06

Matrix: Ground Water **Sampled:** 12/30/14 12:55 **Work Order:** A407685

Project: I-4 Level II **Sampled By:** Jerry Governale

FL Petroleum Range Organics

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
TPH (C8-C40)^	0.10	U	mg/L	1	0.10	0.17	4L31012	FL-PRO	12/31/14 18:54	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
n-Nonatriacontane	*0.099*	*1*	*0.100*	*99 %*	*36-144*	*4L31012*	*FL-PRO*	*12/31/14 18:54*	*JJB*	
o-Terphenyl	*0.044*	*1*	*0.0500*	*88 %*	*39-156*	*4L31012*	*FL-PRO*	*12/31/14 18:54*	*JJB*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6]^	0.0230	U	ug/L	1	0.0230	0.200	4L29017	EPA 7470A	01/07/15 08:21	JMA	

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	7.12	U	ug/L	1	7.12	10.0	4L31003	EPA 6010C	01/05/15 13:43	ACV	
Barium [7440-39-3]^	**51.1**		ug/L	1	0.630	10.0	4L31003	EPA 6010C	01/05/15 13:43	ACV	
Cadmium [7440-43-9]^	0.170	U	ug/L	1	0.170	1.00	4L31003	EPA 6010C	01/05/15 13:43	ACV	
Chromium [7440-47-3]^	1.30	U	ug/L	1	1.30	10.0	4L31003	EPA 6010C	01/05/15 13:43	ACV	
Lead [7439-92-1]^	2.20	U	ug/L	1	2.20	10.0	4L31003	EPA 6010C	01/05/15 13:43	ACV	
Selenium [7782-49-2]^	6.60	U	ug/L	1	6.60	40.0	4L31003	EPA 6010C	01/05/15 13:43	ACV	
Silver [7440-22-4]^	1.20	U	ug/L	1	1.20	10.0	4L31003	EPA 6010C	01/05/15 13:43	ACV	

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A07019 - EPA 5030B_MS

Blank (5A07019-BLK1) Prepared: 01/07/2015 00:00 Analyzed: 01/07/2015 10:46

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.61	U	1.0	ug/L							
1,1,1-Trichloroethane	0.80	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.54	U	1.0	ug/L							
1,1,2-Trichloroethane	0.76	U	1.0	ug/L							
1,1-Dichloroethane	0.62	U	1.0	ug/L							
1,1-Dichloroethene	0.94	U	1.0	ug/L							
1,1-Dichloropropene	0.74	U	1.0	ug/L							
1,2,3-Trichlorobenzene	0.86	U	1.0	ug/L							
1,2,3-Trichloropropane	0.64	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.70	U	1.0	ug/L							
1,2,4-Trimethylbenzene	0.69	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.96	U	1.0	ug/L							
1,2-Dibromoethane	0.78	U	1.0	ug/L							
1,2-Dichlorobenzene	0.73	U	1.0	ug/L							
1,2-Dichloroethane	0.63	U	1.0	ug/L							
1,2-Dichloropropane	0.80	U	1.0	ug/L							
1,3,5-Trimethylbenzene	0.58	U	1.0	ug/L							
1,3-Dichlorobenzene	0.77	U	1.0	ug/L							
1,3-Dichloropropane	0.60	U	1.0	ug/L							
1,4-Dichlorobenzene	0.76	U	1.0	ug/L							
2,2-Dichloropropane	0.66	U	1.0	ug/L							
2-Butanone	4.5	U	5.0	ug/L							
2-Chloroethyl Vinyl Ether	1.9	U	5.0	ug/L							
2-Chlorotoluene	0.68	U	1.0	ug/L							
2-Hexanone	1.4	U	5.0	ug/L							
4-Chlorotoluene	0.65	U	1.0	ug/L							
4-Isopropyltoluene	0.80	U	1.0	ug/L							
4-Methyl-2-pentanone	0.79	U	5.0	ug/L							
Acetone	5.0	U	10	ug/L							
Benzene	0.71	U	1.0	ug/L							
Bromobenzene	0.77	U	1.0	ug/L							
Bromochloromethane	0.94	U	1.0	ug/L							
Bromodichloromethane	0.52	U	1.0	ug/L							
Bromoform	0.75	U	1.0	ug/L							
Bromomethane	0.95	U	1.0	ug/L							
Carbon disulfide	2.6	U	5.0	ug/L							
Carbon tetrachloride	0.94	U	1.0	ug/L							
Chlorobenzene	0.72	U	1.0	ug/L							
Chloroethane	0.98	U	1.0	ug/L							
Chloroform	0.80	U	1.0	ug/L							
Chloromethane	0.82	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.53	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.59	U	1.0	ug/L							
Dibromochloromethane	0.44	U	1.0	ug/L							
Dibromomethane	0.84	U	1.0	ug/L							
Dichlorodifluoromethane	0.74	U	1.0	ug/L							
Ethylbenzene	0.69	U	1.0	ug/L							
Hexachlorobutadiene	0.70	U	1.0	ug/L							
Isopropylbenzene	0.67	U	1.0	ug/L							

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A07019 - EPA 5030B_MS - Continued

Blank (5A07019-BLK1) Continued Prepared: 01/07/2015 00:00 Analyzed: 01/07/2015 10:46

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
m,p-Xylenes	1.3	U	2.0	ug/L							
Methylene chloride	2.0	U	5.0	ug/L							
Methyl-tert-Butyl Ether	0.60	U	1.0	ug/L							
Naphthalene	0.82	U	1.0	ug/L							
n-Butyl Benzene	0.70	U	1.0	ug/L							
n-Propyl Benzene	0.70	U	1.0	ug/L							
o-Xylene	0.53	U	1.0	ug/L							
sec-Butylbenzene	0.74	U	1.0	ug/L							
Styrene	0.61	U	1.0	ug/L							
tert-Butylbenzene	0.64	U	1.0	ug/L							
Tetrachloroethene	0.76	U	1.0	ug/L							
Toluene	0.72	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.73	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.73	U	1.0	ug/L							
Trichloroethene	0.89	U	1.0	ug/L							
Trichlorofluoromethane	0.94	U	1.0	ug/L							
Vinyl chloride	0.71	U	1.0	ug/L							
Xylenes (Total)	1.3	U	2.0	ug/L							
4-Bromofluorobenzene	*70*			*ug/L*	*50.0*		*140*	*41-142*			
Dibromofluoromethane	*44*			*ug/L*	*50.0*		*88*	*53-146*			
Toluene-d8	*50*			*ug/L*	*50.0*		*100*	*41-146*			

LCS (5A07019-BS1) Prepared: 01/07/2015 00:00 Analyzed: 01/07/2015 09:46

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0		107	47-139			
Benzene	18		1.0	ug/L	20.0		91	56-136			
Chlorobenzene	21		1.0	ug/L	20.0		106	51-139			
Toluene	20		1.0	ug/L	20.0		100	64-131			
Trichloroethene	19		1.0	ug/L	20.0		96	62-135			
4-Bromofluorobenzene	*55*			*ug/L*	*50.0*		*110*	*41-142*			
Dibromofluoromethane	*46*			*ug/L*	*50.0*		*91*	*53-146*			
Toluene-d8	*49*			*ug/L*	*50.0*		*97*	*41-146*			

Matrix Spike (5A07019-MS1) Prepared: 01/07/2015 00:00 Analyzed: 01/07/2015 19:05

Source: A407366-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	17		1.0	ug/L	20.0	0.94 U	87	47-139			
Benzene	15		1.0	ug/L	20.0	0.71 U	75	56-136			
Chlorobenzene	19		1.0	ug/L	20.0	0.72 U	94	51-139			
Toluene	17		1.0	ug/L	20.0	0.72 U	84	64-131			
Trichloroethene	18		1.0	ug/L	20.0	0.89 U	89	62-135			
4-Bromofluorobenzene	*51*			*ug/L*	*50.0*		*102*	*41-142*			
Dibromofluoromethane	*47*			*ug/L*	*50.0*		*93*	*53-146*			
Toluene-d8	*49*			*ug/L*	*50.0*		*97*	*41-146*			

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A07019 - EPA 5030B_MS - Continued

Matrix Spike Dup (5A07019-MSD1) Prepared: 01/07/2015 00:00 Analyzed: 01/07/2015 19:33

Source: A407366-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	15		1.0	ug/L	20.0	0.94 U	76	47-139	14	16	
Benzene	14		1.0	ug/L	20.0	0.71 U	72	56-136	4	14	
Chlorobenzene	17		1.0	ug/L	20.0	0.72 U	87	51-139	8	13	
Toluene	17		1.0	ug/L	20.0	0.72 U	84	64-131	0.2	16	
Trichloroethene	16		1.0	ug/L	20.0	0.89 U	82	62-135	8	20	
4-Bromofluorobenzene	*50*			*ug/L*	*50.0*		*100*	*41-142*			
Dibromofluoromethane	*43*			*ug/L*	*50.0*		*86*	*53-146*			
Toluene-d8	*50*			*ug/L*	*50.0*		*99*	*41-146*			

Tentatively Identified Compounds by Volatile GCMS - Quality Control

Batch 5A07019 - EPA 5030B_MS

Blank (5A07019-BLK1) Prepared: 01/07/2015 00:00 Analyzed: 01/07/2015 10:46

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Tentatively Identified Compounds	**0.0**			ug/L							

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A02003 - EPA 3510C_MS

Blank (5A02003-BLK1) Prepared: 01/02/2015 10:54 Analyzed: 01/10/2015 21:09

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	3.3	U	10	ug/L							
1,2-Dichlorobenzene	3.2	U	10	ug/L							
1,3-Dichlorobenzene	3.4	U	10	ug/L							
1,4-Dichlorobenzene	3.2	U	10	ug/L							
1-Methylnaphthalene	3.1	U	10	ug/L							
2,4,5-Trichlorophenol	3.9	U	10	ug/L							
2,4,6-Trichlorophenol	6.4	U	10	ug/L							
2,4-Dichlorophenol	6.5	U	10	ug/L							
2,4-Dimethylphenol	6.4	U	10	ug/L							
2,4-Dinitrophenol	7.7	U	10	ug/L							
2,4-Dinitrotoluene	3.2	U	10	ug/L							
2,6-Dinitrotoluene	2.9	U	10	ug/L							
2-Chloronaphthalene	3.2	U	10	ug/L							
2-Chlorophenol	7.4	U	10	ug/L							
2-Methyl-4,6-dinitrophenol	6.0	U	10	ug/L							
2-Methylnaphthalene	3.8	U	10	ug/L							
2-Methylphenol	3.5	U	10	ug/L							
2-Nitroaniline	3.3	U	10	ug/L							
2-Nitrophenol	5.2	U	10	ug/L							
3 & 4-Methylphenol	8.2	U	10	ug/L							
3,3'-Dichlorobenzidine	3.3	U	10	ug/L							
3-Nitroaniline	3.3	U	10	ug/L							
4-Bromophenyl-phenylether	3.3	U	10	ug/L							
4-Chloro-3-methylphenol	7.3	U	10	ug/L							
4-Chloroaniline	4.3	U	10	ug/L							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A02003 - EPA 3510C_MS - Continued

Blank (5A02003-BLK1) Continued Prepared: 01/02/2015 10:54 Analyzed: 01/10/2015 21:09

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4-Chlorophenyl-phenylether	3.2	U	10	ug/L							
4-Nitroaniline	3.2	U	10	ug/L							
4-Nitrophenol	7.9	U	10	ug/L							
Acenaphthene	3.0	U	10	ug/L							
Acenaphthylene	3.3	U	10	ug/L							
Anthracene	3.0	U	10	ug/L							
Benzidine	7.1	U	10	ug/L							
Benzo(a)anthracene	3.2	U	10	ug/L							
Benzo(a)pyrene	3.1	U	10	ug/L							
Benzo(b)fluoranthene	3.4	U	10	ug/L							
Benzo(g,h,i)perylene	3.7	U	10	ug/L							
Benzo(k)fluoranthene	3.3	U	10	ug/L							
Benzoic acid	15	U	50	ug/L							
Benzyl alcohol	3.9	U	10	ug/L							
Bis(2-chloroethoxy)methane	3.3	U	10	ug/L							
Bis(2-chloroethyl)ether	3.8	U	10	ug/L							
Bis(2-chloroisopropyl)ether	3.5	U	10	ug/L							
Bis(2-ethylhexyl)phthalate	3.5	U	5.0	ug/L							
Butylbenzylphthalate	5.1	U	10	ug/L							
Chrysene	3.0	U	10	ug/L							
Dibenzo(a,h)anthracene	3.8	U	10	ug/L							
Dibenzofuran	2.8	U	10	ug/L							
Diethylphthalate	3.0	U	10	ug/L							
Dimethylphthalate	3.0	U	10	ug/L							
Di-n-butylphthalate	3.2	U	10	ug/L							
Di-n-octylphthalate	3.6	U	10	ug/L							
Fluoranthene	4.0	U	10	ug/L							
Fluorene	2.9	U	10	ug/L							
Hexachlorobenzene	3.0	U	10	ug/L							
Hexachlorobutadiene	4.1	U	10	ug/L							
Hexachlorocyclopentadiene	3.8	U	10	ug/L							
Hexachloroethane	3.0	U	10	ug/L							
Indeno(1,2,3-cd)pyrene	4.1	U	10	ug/L							
Isophorone	4.5	U	10	ug/L							
Naphthalene	3.6	U	10	ug/L							
Nitrobenzene	3.2	U	10	ug/L							
N-Nitrosodimethylamine	3.8	U	10	ug/L							
N-Nitroso-di-n-propylamine	4.5	U	10	ug/L							
N-nitrosodiphenylamine/Diphenylamine	5.4	U	10	ug/L							
Pentachlorophenol	8.2	U	10	ug/L							
Phenanthrene	2.8	U	10	ug/L							
Phenol	5.6	U	10	ug/L							
Pyrene	4.1	U	10	ug/L							
Pyridine	3.5	U	10	ug/L							
2,4,6-Tribromophenol	*48*			*ug/L*	*50.0*		*96*	*47-128*			
2-Fluorobiphenyl	*42*			*ug/L*	*50.0*		*85*	*44-102*			
2-Fluorophenol	*39*			*ug/L*	*50.0*		*79*	*25-79*			
Nitrobenzene-d5	*51*			*ug/L*	*50.0*		*102*	*43-112*			
Phenol-d5	*32*			*ug/L*	*50.0*		*63*	*14-54*			*QS-03*

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A02003 - EPA 3510C_MS - Continued

Blank (5A02003-BLK1) Continued Prepared: 01/02/2015 10:54 Analyzed: 01/10/2015 21:09

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Terphenyl-d14	*63*			*ug/L*	*50.0*		*126*	*65-122*			*QS-03*

LCS (5A02003-BS1) Prepared: 01/02/2015 10:54 Analyzed: 01/11/2015 17:59

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	21		10	ug/L	50.0		43	20-95			
1,4-Dichlorobenzene	21		10	ug/L	50.0		41	17-94			
2,4-Dinitrotoluene	53		10	ug/L	50.0		107	63-120			
2-Chlorophenol	41		10	ug/L	50.0		81	50-97			
4-Chloro-3-methylphenol	43		10	ug/L	50.0		86	54-108			
4-Nitrophenol	33		10	ug/L	50.0		65	10-79			
Acenaphthene	37		10	ug/L	50.0		75	50-95			
N-Nitroso-di-n-propylamine	44		10	ug/L	50.0		89	53-124			
Pentachlorophenol	58		10	ug/L	50.0		115	27-100			QL-02
Phenol	22		10	ug/L	50.0		43	14-54			
Pyrene	54		10	ug/L	50.0		107	61-115			
2,4,6-Tribromophenol	*49*			*ug/L*	*50.0*		*98*	*47-128*			
2-Fluorobiphenyl	*38*			*ug/L*	*50.0*		*76*	*44-102*			
2-Fluorophenol	*27*			*ug/L*	*50.0*		*55*	*25-79*			
Nitrobenzene-d5	*41*			*ug/L*	*50.0*		*83*	*43-112*			
Phenol-d5	*20*			*ug/L*	*50.0*		*40*	*14-54*			
Terphenyl-d14	*54*			*ug/L*	*50.0*		*109*	*65-122*			

Matrix Spike (5A02003-MS1) Prepared: 01/02/2015 10:54 Analyzed: 01/10/2015 23:01

Source: A407635-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	20		10	ug/L	50.0	3.3 U	39	20-95			
1,4-Dichlorobenzene	19		10	ug/L	50.0	3.2 U	37	17-94			
2,4-Dinitrotoluene	45		10	ug/L	50.0	3.2 U	89	63-120			
2-Chlorophenol	38		10	ug/L	50.0	7.4 U	76	50-97			
4-Chloro-3-methylphenol	39		10	ug/L	50.0	7.3 U	77	54-108			
4-Nitrophenol	25		10	ug/L	50.0	7.9 U	50	10-79			
Acenaphthene	32		10	ug/L	50.0	3.0 U	65	50-95			
N-Nitroso-di-n-propylamine	40		10	ug/L	50.0	4.5 U	80	53-124			
Pentachlorophenol	41		10	ug/L	50.0	8.2 U	83	27-100			
Phenol	21		10	ug/L	50.0	5.6 U	41	14-54			
Pyrene	43		10	ug/L	50.0	4.1 U	86	61-115			
2,4,6-Tribromophenol	*41*			*ug/L*	*50.0*		*81*	*47-128*			
2-Fluorobiphenyl	*35*			*ug/L*	*50.0*		*70*	*44-102*			
2-Fluorophenol	*27*			*ug/L*	*50.0*		*54*	*25-79*			
Nitrobenzene-d5	*40*			*ug/L*	*50.0*		*79*	*43-112*			
Phenol-d5	*19*			*ug/L*	*50.0*		*38*	*14-54*			
Terphenyl-d14	*46*			*ug/L*	*50.0*		*92*	*65-122*			

Matrix Spike Dup (5A02003-MSD1) Prepared: 01/02/2015 10:54 Analyzed: 01/10/2015 23:29

Source: A407635-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	20		10	ug/L	50.0	3.3 U	41	20-95	4	32	

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A02003 - EPA 3510C_MS - Continued

Matrix Spike Dup (5A02003-MSD1) Continued Prepared: 01/02/2015 10:54 Analyzed: 01/10/2015 23:29

Source: A407635-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,4-Dichlorobenzene	20		10	ug/L	50.0	3.2 U	39	17-94	5	34	
2,4-Dinitrotoluene	54		10	ug/L	50.0	3.2 U	108	63-120	19	23	
2-Chlorophenol	42		10	ug/L	50.0	7.4 U	84	50-97	10	27	
4-Chloro-3-methylphenol	49		10	ug/L	50.0	7.3 U	97	54-108	23	28	
4-Nitrophenol	32		10	ug/L	50.0	7.9 U	64	10-79	25	35	
Acenaphthene	35		10	ug/L	50.0	3.0 U	71	50-95	9	27	
N-Nitroso-di-n-propylamine	46		10	ug/L	50.0	4.5 U	92	53-124	14	24	
Pentachlorophenol	50		10	ug/L	50.0	8.2 U	100	27-100	19	26	
Phenol	23		10	ug/L	50.0	5.6 U	45	14-54	10	32	
Pyrene	52		10	ug/L	50.0	4.1 U	103	61-115	18	28	
2,4,6-Tribromophenol	*48*			*ug/L*	*50.0*		*96*	*47-128*			
2-Fluorobiphenyl	*38*			*ug/L*	*50.0*		*75*	*44-102*			
2-Fluorophenol	*29*			*ug/L*	*50.0*		*58*	*25-79*			
Nitrobenzene-d5	*42*			*ug/L*	*50.0*		*83*	*43-112*			
Phenol-d5	*22*			*ug/L*	*50.0*		*43*	*14-54*			
Terphenyl-d14	*54*			*ug/L*	*50.0*		*108*	*65-122*			

Tentatively Identified Compounds by Semivolatile GCMS - Quality Control

Batch 5A02003 - EPA 3510C_MS

Blank (5A02003-BLK1) Prepared: 01/02/2015 10:54 Analyzed: 01/10/2015 21:09

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Tentatively Identified Compounds	**0.0**			ug/L							

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 4L31004 - EPA 3511_MS

Blank (4L31004-BLK1) Prepared: 12/31/2014 07:30 Analyzed: 01/05/2015 15:32

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	0.047	U	0.10	ug/L							
2-Methylnaphthalene	0.044	U	0.10	ug/L							
Acenaphthene	0.037	U	0.10	ug/L							
Acenaphthylene	0.036	U	0.10	ug/L							
Anthracene	0.036	U	0.10	ug/L							
Benzo(a)anthracene	0.037	U	0.10	ug/L							
Benzo(a)pyrene	0.043	U	0.10	ug/L							
Benzo(b)fluoranthene	0.059	U	0.10	ug/L							
Benzo(g,h,i)perylene	0.040	U	0.10	ug/L							
Benzo(k)fluoranthene	0.046	U	0.10	ug/L							
Chrysene	0.051	U	0.10	ug/L							
Dibenzo(a,h)anthracene	0.026	U	0.10	ug/L							
Fluoranthene	0.051	U	0.10	ug/L							
Fluorene	0.038	U	0.10	ug/L							
Indeno(1,2,3-cd)pyrene	0.037	U	0.10	ug/L							
Naphthalene	0.035	U	0.10	ug/L							
Phenanthrene	0.039	U	0.10	ug/L							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 4L31004 - EPA 3511_MS - Continued

Blank (4L31004-BLK1) Continued Prepared: 12/31/2014 07:30 Analyzed: 01/05/2015 15:32

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Pyrene	0.048	U	0.10	ug/L							
p-Terphenyl	*6.4*			*ug/L*	*5.71*		*111*	*66-136*			

LCS (4L31004-BS1) Prepared: 12/31/2014 07:30 Analyzed: 01/05/2015 21:23

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	5.4		0.10	ug/L	5.71		94	80-120			
Benzo(a)pyrene	5.9		0.10	ug/L	5.71		102	73-149			
Benzo(g,h,i)perylene	6.2		0.10	ug/L	5.71		108	57-124			
Naphthalene	5.4		0.10	ug/L	5.71		95	68-120			
p-Terphenyl	*7.0*			*ug/L*	*5.71*		*123*	*66-136*			

Matrix Spike (4L31004-MS1) Prepared: 12/31/2014 07:30 Analyzed: 01/05/2015 14:27

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	4.3		0.10	ug/L	5.71	0.037 U	76	80-120			QM-07
Benzo(a)pyrene	4.7		0.10	ug/L	5.71	0.043 U	82	73-149			
Benzo(g,h,i)perylene	5.3		0.10	ug/L	5.71	0.063	91	57-124			
Naphthalene	4.2		0.10	ug/L	5.71	0.035 U	73	68-120			
p-Terphenyl	*6.1*			*ug/L*	*5.71*		*108*	*66-136*			

Matrix Spike Dup (4L31004-MSD1) Prepared: 12/31/2014 07:30 Analyzed: 01/05/2015 14:49

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	4.5		0.10	ug/L	5.71	0.037 U	78	80-120	3	25	QM-07
Benzo(a)pyrene	4.8		0.10	ug/L	5.71	0.043 U	85	73-149	3	25	
Benzo(g,h,i)perylene	5.4		0.10	ug/L	5.71	0.063	93	57-124	2	25	
Naphthalene	4.2		0.10	ug/L	5.71	0.035 U	73	68-120	0.5	25	
p-Terphenyl	*5.9*			*ug/L*	*5.71*		*104*	*66-136*			

Organochlorine Pesticides by GC - Quality Control

Batch 4L30007 - EPA 3510C

Blank (4L30007-BLK1) Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:05

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.018	U	0.050	ug/L							
4,4'-DDE	0.036	U	0.050	ug/L							
4,4'-DDT	0.025	U	0.050	ug/L							
Aldrin	0.032	U	0.050	ug/L							
alpha-BHC	0.026	U	0.050	ug/L							
beta-BHC	0.022	U	0.050	ug/L							
Chlordane (tech)	0.32	U	0.50	ug/L							
Chlordane-alpha	0.022	U	0.050	ug/L							
Chlordane-gamma	0.018	U	0.050	ug/L							
delta-BHC	0.019	U	0.050	ug/L							

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 4L30007 - EPA 3510C - Continued

Blank (4L30007-BLK1) Continued Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:05

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Dieldrin	0.017	U	0.050	ug/L							
Endosulfan I	0.016	U	0.050	ug/L							
Endosulfan II	0.017	U	0.050	ug/L							
Endosulfan sulfate	0.016	U	0.050	ug/L							
Endrin	0.014	U	0.050	ug/L							
Endrin aldehyde	0.020	U	0.050	ug/L							
Endrin ketone	0.017	U	0.050	ug/L							
gamma-BHC	0.020	U	0.050	ug/L							
Heptachlor	0.018	U	0.050	ug/L							
Heptachlor epoxide	0.018	U	0.050	ug/L							
Isodrin	0.030	U	0.050	ug/L							
Methoxychlor	0.018	U	0.050	ug/L							
Mirex	0.034	U	0.050	ug/L							
Toxaphene	0.48	U	0.50	ug/L							
2,4,5,6-TCMX	*1.1*			*ug/L*	*1.00*		*105*	*38-142*			
Decachlorobiphenyl	*0.99*			*ug/L*	*1.00*		*99*	*34-159*			

Blank (4L30007-BLK2) Prepared: 12/31/2014 05:35 Analyzed: 01/07/2015 12:16

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.018	U	0.050	ug/L							
4,4'-DDE	0.036	U	0.050	ug/L							
4,4'-DDT	0.025	U	0.050	ug/L							
Aldrin	0.032	U	0.050	ug/L							
alpha-BHC	0.026	U	0.050	ug/L							
beta-BHC	0.022	U	0.050	ug/L							
Chlordane (tech)	0.32	U	0.50	ug/L							
Chlordane-alpha	0.022	U	0.050	ug/L							
Chlordane-gamma	0.018	U	0.050	ug/L							
delta-BHC	0.019	U	0.050	ug/L							
Dieldrin	0.017	U	0.050	ug/L							
Endosulfan I	0.016	U	0.050	ug/L							
Endosulfan II	0.017	U	0.050	ug/L							
Endosulfan sulfate	0.016	U	0.050	ug/L							
Endrin	0.014	U	0.050	ug/L							
Endrin aldehyde	0.020	U	0.050	ug/L							
Endrin ketone	0.017	U	0.050	ug/L							
gamma-BHC	0.020	U	0.050	ug/L							
Heptachlor	0.018	U	0.050	ug/L							
Heptachlor epoxide	0.018	U	0.050	ug/L							
Isodrin	0.030	U	0.050	ug/L							
Methoxychlor	0.018	U	0.050	ug/L							
Mirex	0.034	U	0.050	ug/L							
Toxaphene	0.48	U	0.50	ug/L							
2,4,5,6-TCMX	*0.98*			*ug/L*	*1.00*		*98*	*38-142*			
Decachlorobiphenyl	*0.99*			*ug/L*	*1.00*		*99*	*34-159*			

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 4L30007 - EPA 3510C - Continued

LCS (4L30007-BS1) Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:27

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.0		0.050	ug/L	1.00		104	37-125			
Dieldrin	0.80		0.050	ug/L	1.00		80	46-127			
Endrin	0.79		0.050	ug/L	1.00		79	28-143			
2,4,5,6-TCMX	*0.84*			*ug/L*	*1.00*		*84*	*38-142*			
Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*116*	*34-159*			

Matrix Spike (4L30007-MS1) Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:39

Source: A407635-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.1		0.050	ug/L	1.00	0.025 U	107	37-125			
Dieldrin	0.80		0.050	ug/L	1.00	0.017 U	80	46-127			
Endrin	0.78		0.050	ug/L	1.00	0.014 U	78	28-143			
2,4,5,6-TCMX	*0.92*			*ug/L*	*1.00*		*92*	*38-142*			
Decachlorobiphenyl	*1.1*			*ug/L*	*1.00*		*113*	*34-159*			

Matrix Spike Dup (4L30007-MSD1) Prepared: 12/30/2014 07:35 Analyzed: 01/07/2015 12:50

Source: A407635-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.93		0.050	ug/L	1.00	0.025 U	93	37-125	14	24	
Dieldrin	0.64		0.050	ug/L	1.00	0.017 U	64	46-127	22	21	QM-11
Endrin	0.61		0.050	ug/L	1.00	0.014 U	61	28-143	25	22	QM-11
2,4,5,6-TCMX	*0.86*			*ug/L*	*1.00*		*86*	*38-142*			
Decachlorobiphenyl	*0.89*			*ug/L*	*1.00*		*89*	*34-159*			

Batch 4L31021 - EPA 3550C

Blank (4L31021-BLK1) Prepared: 12/31/2014 12:10 Analyzed: 01/09/2015 21:39

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.00048	U	0.0017	mg/kg wet							
4,4'-DDE	0.00052	U	0.0017	mg/kg wet							
4,4'-DDT	0.00066	U	0.0017	mg/kg wet							
Aldrin	0.00051	U	0.0017	mg/kg wet							
alpha-BHC	0.00056	U	0.0017	mg/kg wet							
beta-BHC	0.0010	U	0.0017	mg/kg wet							
Chlordane (tech)	0.0084	U	0.033	mg/kg wet							
Chlordane-alpha	0.00045	U	0.0017	mg/kg wet							
Chlordane-gamma	0.00045	U	0.0017	mg/kg wet							
delta-BHC	0.00050	U	0.0017	mg/kg wet							
Dieldrin	0.00045	U	0.0017	mg/kg wet							

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 4L31021 - EPA 3550C - Continued

Blank (4L31021-BLK1) Continued Prepared: 12/31/2014 12:10 Analyzed: 01/09/2015 21:39

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Endosulfan I	0.00039	U	0.0017	mg/kg wet							
Endosulfan II	0.00048	U	0.0017	mg/kg wet							
Endosulfan sulfate	0.00049	U	0.0017	mg/kg wet							
Endrin	0.00074	U	0.0017	mg/kg wet							
Endrin aldehyde	0.00083	U	0.0017	mg/kg wet							
Endrin ketone	0.00047	U	0.0017	mg/kg wet							
gamma-BHC	0.00060	U	0.0017	mg/kg wet							
Heptachlor	0.00062	U	0.0017	mg/kg wet							
Heptachlor epoxide	0.00048	U	0.0017	mg/kg wet							
Isodrin	0.00062	U	0.0017	mg/kg wet							
Methoxychlor	0.00086	U	0.0017	mg/kg wet							
Mirex	0.0011	U	0.0017	mg/kg wet							
Toxaphene	0.017	U	0.033	mg/kg wet							
2,4,5,6-TCMX	*0.031*			*mg/kg wet*	*0.0333*		*93*	*20-137*			
Decachlorobiphenyl	*0.036*			*mg/kg wet*	*0.0333*		*108*	*13-183*			

LCS (4L31021-BS1) Prepared: 12/31/2014 12:10 Analyzed: 01/09/2015 21:50

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.036		0.0017	mg/kg wet	0.0333		108	37-125			
Dieldrin	0.028		0.0017	mg/kg wet	0.0333		84	46-127			
Endrin	0.027		0.0017	mg/kg wet	0.0333		80	28-143			
2,4,5,6-TCMX	*0.028*			*mg/kg wet*	*0.0333*		*83*	*20-137*			
Decachlorobiphenyl	*0.027*			*mg/kg wet*	*0.0333*		*82*	*13-183*			

Matrix Spike (4L31021-MS1) Prepared: 12/31/2014 12:10 Analyzed: 01/09/2015 22:02

Source: A407685-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.033		0.0044	mg/kg dry	0.0429	0.0017 U	76	37-125			
Dieldrin	0.036		0.0044	mg/kg dry	0.0429	0.0012 U	83	46-127			
Endrin	0.035		0.0044	mg/kg dry	0.0429	0.0019 U	82	28-143			
2,4,5,6-TCMX	*0.034*			*mg/kg dry*	*0.0429*		*79*	*20-137*			
Decachlorobiphenyl	*0.040*			*mg/kg dry*	*0.0429*		*92*	*13-183*			

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 4L31021 - EPA 3550C - Continued

Matrix Spike Dup (4L31021-MSD1) Prepared: 12/31/2014 12:10 Analyzed: 01/09/2015 22:13

Source: A407685-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.027		0.0044	mg/kg dry	0.0439	0.0017 U	61	37-125	20	24	
Dieldrin	0.030		0.0044	mg/kg dry	0.0439	0.0012 U	68	46-127	19	21	
Endrin	0.030		0.0044	mg/kg dry	0.0439	0.0019 U	68	28-143	17	22	
2,4,5,6-TCMX	*0.028*			*mg/kg dry*	*0.0439*		*63*	*20-137*			
Decachlorobiphenyl	*0.034*			*mg/kg dry*	*0.0439*		*77*	*13-183*			

Polychlorinated Biphenyls by GC - Quality Control

Batch 4L31005 - EPA 3510C

Blank (4L31005-BLK1) Prepared: 12/31/2014 05:35 Analyzed: 01/08/2015 08:47

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.49	U	0.50	ug/L							
PCB-1221	0.46	U	0.50	ug/L							
PCB-1232	0.47	U	0.50	ug/L							
PCB-1248	0.49	U	0.50	ug/L							
PCB-1254	0.50	U	0.50	ug/L							
PCB-1260	0.48	U	0.50	ug/L							
2,4,5,6-TCMX [2C]	*0.93*			*ug/L*	*1.00*		*93*	*38-142*			
Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*116*	*34-159*			

LCS (4L31005-BS1) Prepared: 12/31/2014 05:35 Analyzed: 01/08/2015 08:58

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	8.6		0.50	ug/L	10.0		86	11-162			
PCB-1260	9.8		0.50	ug/L	10.0		98	10-166			
2,4,5,6-TCMX [2C]	*0.98*			*ug/L*	*1.00*		*98*	*38-142*			
Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*119*	*34-159*			

Matrix Spike (4L31005-MS1) Prepared: 12/31/2014 05:35 Analyzed: 01/08/2015 09:09

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	10		0.50	ug/L	10.0	0.49 U	100	11-162			
PCB-1260	11		0.50	ug/L	10.0	0.48 U	109	10-166			
2,4,5,6-TCMX [2C]	*1.1*			*ug/L*	*1.00*		*110*	*38-142*			
Decachlorobiphenyl	*1.4*			*ug/L*	*1.00*		*136*	*34-159*			

Matrix Spike Dup (4L31005-MSD1) Prepared: 12/31/2014 05:35 Analyzed: 01/08/2015 09:21

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	11		0.50	ug/L	10.0	0.49 U	105	11-162	5	23	
PCB-1260	11		0.50	ug/L	10.0	0.48 U	114	10-166	4	13	
2,4,5,6-TCMX [2C]	*1.2*			*ug/L*	*1.00*		*115*	*38-142*			
Decachlorobiphenyl	*1.4*			*ug/L*	*1.00*		*142*	*34-159*			

Chlorinated Herbicides by GC - Quality Control

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 4L30037 - EPA 3510C

Blank (4L30037-BLK1) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 19:18

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.28	U	0.50	ug/L							QV-01
2,4,5-TP (Silvex)	0.44	U	0.50	ug/L							
2,4-D	0.27	U	0.50	ug/L							
2,4-DB	0.35	U	0.50	ug/L							
3,5-DCBA	0.36	U	0.50	ug/L							
4-Nitrophenol	0.32	U	0.50	ug/L							
Acifluorfen	0.45	U	0.50	ug/L							
Bentazon	0.22	U	0.50	ug/L							
Chloramben	0.43	U	0.50	ug/L							
Dacthal	0.23	U	0.50	ug/L							
Dalapon	0.49	U	0.50	ug/L							
Dicamba	0.19	U	0.50	ug/L							
Dichlorprop	0.28	U	0.50	ug/L							
Dinoseb	0.32	U	0.50	ug/L							
MCPA	34	U	50	ug/L							
MCPP	46	U	50	ug/L							
Pentachlorophenol	0.19	U	0.50	ug/L							
Picloram	0.23	U	0.50	ug/L							QV-01
2,4-DCAA [2C]	*1.2*			*ug/L*	*2.00*		*59*	*68-139*			*QS-03*

Blank (4L30037-BLK2) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 19:44

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.28	U	0.50	ug/L							QV-01
2,4,5-TP (Silvex)	0.44	U	0.50	ug/L							
2,4-D	0.27	U	0.50	ug/L							
2,4-DB	0.35	U	0.50	ug/L							
3,5-DCBA	0.36	U	0.50	ug/L							
4-Nitrophenol	0.32	U	0.50	ug/L							
Acifluorfen	0.45	U	0.50	ug/L							
Bentazon	0.22	U	0.50	ug/L							
Chloramben	0.43	U	0.50	ug/L							
Dacthal	0.23	U	0.50	ug/L							
Dalapon	0.49	U	0.50	ug/L							
Dicamba	0.19	U	0.50	ug/L							
Dichlorprop	0.28	U	0.50	ug/L							
Dinoseb	0.32	U	0.50	ug/L							
MCPA	34	U	50	ug/L							
MCPP	46	U	50	ug/L							
Pentachlorophenol	0.19	U	0.50	ug/L							
Picloram	0.23	U	0.50	ug/L							QV-01
2,4-DCAA	*1.6*			*ug/L*	*2.00*		*78*	*68-139*			

LCS (4L30037-BS1) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 20:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.8		0.50	ug/L	2.00		89	70-114			
2,4-D	1.6		0.50	ug/L	2.00		80	37-129			

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 4L30037 - EPA 3510C - Continued

LCS (4L30037-BS1) Continued Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 20:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-DB	2.7		0.50	ug/L	2.00		134	49-144			
Bentazon	1.1		0.50	ug/L	2.00		55	37-141			
Dalapon	1.1		0.50	ug/L	2.00		57	18-121			
Dicamba	1.5		0.50	ug/L	2.00		74	36-143			
Picloram	1.4		0.50	ug/L	2.00		72	36-127			J-04
2,4-DCAA	*2.0*			*ug/L*	*2.00*		*98*	*68-139*			

Matrix Spike (4L30037-MS1) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 20:35

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.7		0.50	ug/L	2.00	0.44 U	86	70-114			
2,4-D	1.4		0.50	ug/L	2.00	0.27 U	71	37-129			
2,4-DB	1.7		0.50	ug/L	2.00	0.35 U	83	49-144			
Bentazon	1.0		0.50	ug/L	2.00	0.22 U	52	37-141			
Dalapon	0.90		0.50	ug/L	2.00	0.49 U	45	18-121			
Dicamba	1.3		0.50	ug/L	2.00	0.19 U	67	36-143			
Picloram	1.3		0.50	ug/L	2.00	0.23 U	66	36-127			J-04
2,4-DCAA	*1.7*			*ug/L*	*2.00*		*84*	*68-139*			

Matrix Spike Dup (4L30037-MSD1) Prepared: 12/30/2014 21:30 Analyzed: 01/12/2015 21:01

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	2.1		0.50	ug/L	2.00	0.44 U	103	70-114	17	15	QM-11
2,4-D	1.9		0.50	ug/L	2.00	0.27 U	97	37-129	31	33	
2,4-DB	1.8		0.50	ug/L	2.00	0.35 U	92	49-144	10	36	
Bentazon	1.4		0.50	ug/L	2.00	0.22 U	71	37-141	31	22	QM-11
Dalapon	1.4		0.50	ug/L	2.00	0.49 U	69	18-121	42	49	
Dicamba	1.7		0.50	ug/L	2.00	0.19 U	85	36-143	23	24	
Picloram	1.5		0.50	ug/L	2.00	0.23 U	76	36-127	14	16	J-04
2,4-DCAA	*1.7*			*ug/L*	*2.00*		*87*	*68-139*			

Batch 5A05004 - EPA 3550C

Blank (5A05004-BLK1) Prepared: 01/05/2015 08:00 Analyzed: 01/12/2015 03:14

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.0025	U	0.010	mg/kg wet							
2,4,5-TP (Silvex)	0.0047	U	0.010	mg/kg wet							
2,4-D	0.0099	U	0.010	mg/kg wet							
2,4-DB	0.0049	U	0.010	mg/kg wet							
3,5-DCBA	0.0022	U	0.010	mg/kg wet							
4-Nitrophenol	0.0065	U	0.010	mg/kg wet							
Acifluorfen	0.0016	U	0.010	mg/kg wet							

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 5A05004 - EPA 3550C - Continued

Blank (5A05004-BLK1) Continued Prepared: 01/05/2015 08:00 Analyzed: 01/12/2015 03:14

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bentazon	0.0045	U	0.010	mg/kg wet							J-02
Chloramben	0.0039	U	0.010	mg/kg wet							
Dacthal	0.0024	U	0.010	mg/kg wet							
Dalapon	0.0050	U	0.010	mg/kg wet							
Dicamba	0.0023	U	0.010	mg/kg wet							
Dichlorprop	0.0028	U	0.010	mg/kg wet							
Dinoseb	0.0042	U	0.010	mg/kg wet							
MCPA	0.52	U	1.0	mg/kg wet							
MCPP	0.53	U	1.0	mg/kg wet							
Pentachlorophenol	0.0025	U	0.010	mg/kg wet							
Picloram	0.0018	U	0.010	mg/kg wet							
2,4-DCAA	*0.029*			*mg/kg wet*	*0.0400*		*73*	*39-174*			

LCS (5A05004-BS1) Prepared: 01/05/2015 08:00 Analyzed: 01/12/2015 03:40

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	0.031		0.010	mg/kg wet	0.0400		77	45-135			
2,4-D	0.029		0.010	mg/kg wet	0.0400		72	35-121			
2,4-DB	0.028		0.010	mg/kg wet	0.0400		69	34-160			
Bentazon	0.021		0.010	mg/kg wet	0.0400		52	61-100			J-02
Dalapon	0.033		0.010	mg/kg wet	0.0400		82	20-136			
Dicamba	0.029		0.010	mg/kg wet	0.0400		74	47-129			
Picloram	0.021		0.010	mg/kg wet	0.0400		54	33-106			
2,4-DCAA	*0.030*			*mg/kg wet*	*0.0400*		*75*	*39-174*			

Matrix Spike (5A05004-MS1) Prepared: 01/05/2015 08:00 Analyzed: 01/12/2015 04:05

Source: A407685-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	0.043		0.013	mg/kg dry	0.0517	0.0061 U	83	45-135			
2,4-D	0.039		0.013	mg/kg dry	0.0517	0.013 U	76	35-121			
2,4-DB	0.040		0.013	mg/kg dry	0.0517	0.0063 U	77	34-160			
Bentazon	0.028		0.013	mg/kg dry	0.0517	0.0058 U	54	61-100			QL-03
Dalapon	0.054		0.013	mg/kg dry	0.0517	0.0065 U	104	20-136			
Dicamba	0.040		0.013	mg/kg dry	0.0517	0.0030 U	78	47-129			

QUALITY CONTROL DATA

Chlorinated Herbicides by GC - Quality Control

Batch 5A05004 - EPA 3550C - Continued

Matrix Spike (5A05004-MS1) Continued Prepared: 01/05/2015 08:00 Analyzed: 01/12/2015 04:05

Source: A407685-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Picloram	0.029		0.013	mg/kg dry	0.0517	0.0023 U	56	33-106			
2,4-DCAA	*0.044*			*mg/kg dry*	*0.0517*		*84*	*39-174*			

Matrix Spike Dup (5A05004-MSD1) Prepared: 01/05/2015 08:00 Analyzed: 01/12/2015 04:31

Source: A407685-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	0.037		0.013	mg/kg dry	0.0519	0.0061 U	71	45-135	15	23	
2,4-D	0.036		0.013	mg/kg dry	0.0519	0.013 U	68	35-121	10	43	
2,4-DB	0.035		0.013	mg/kg dry	0.0519	0.0063 U	68	34-160	13	47	
Bentazon	0.024		0.013	mg/kg dry	0.0519	0.0058 U	46	61-100	15	43	QL-03
Dalapon	0.052		0.013	mg/kg dry	0.0519	0.0065 U	100	20-136	3	50	
Dicamba	0.034		0.013	mg/kg dry	0.0519	0.0030 U	65	47-129	17	50	
Picloram	0.028		0.013	mg/kg dry	0.0519	0.0023 U	55	33-106	1	37	
2,4-DCAA	*0.036*			*mg/kg dry*	*0.0519*		*69*	*39-174*			

FL Petroleum Range Organics - Quality Control

Batch 4L31012 - EPA 3510C

Blank (4L31012-BLK1) Prepared: 12/31/2014 10:11 Analyzed: 12/31/2014 15:12

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	0.10	U	0.17	mg/L							
n-Nonatriacontane	*0.088*			*mg/L*	*0.100*		*88*	*36-144*			
o-Terphenyl	*0.047*			*mg/L*	*0.0500*		*95*	*39-156*			

LCS (4L31012-BS1) Prepared: 12/31/2014 10:11 Analyzed: 12/31/2014 15:44

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	1.2		0.17	mg/L	1.70		72	40-140			
n-Nonatriacontane	*0.054*			*mg/L*	*0.100*		*54*	*36-144*			
o-Terphenyl	*0.039*			*mg/L*	*0.0500*		*79*	*39-156*			

Matrix Spike (4L31012-MS1) Prepared: 12/31/2014 10:11 Analyzed: 12/31/2014 16:15

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	1.4		0.17	mg/L	1.70	0.10 U	81	40-140			
n-Nonatriacontane	*0.060*			*mg/L*	*0.100*		*60*	*36-144*			
o-Terphenyl	*0.046*			*mg/L*	*0.0500*		*93*	*39-156*			

Matrix Spike Dup (4L31012-MSD1) Prepared: 12/31/2014 10:11 Analyzed: 12/31/2014 16:47

Source: A407635-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	1.7		0.17	mg/L	1.70	0.10 U	98	40-140	19	25	
n-Nonatriacontane	*0.053*			*mg/L*	*0.100*		*53*	*36-144*			
o-Terphenyl	*0.057*			*mg/L*	*0.0500*		*114*	*39-156*			

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 4L29017 - EPA 7470A

Blank (4L29017-BLK1) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.0230	U	0.200	ug/L							

Blank (4L29017-BLK2) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:07

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.230	U	2.00	ug/L							

LCS (4L29017-BS1) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.08		0.200	ug/L	5.00		102	80-120			

Matrix Spike (4L29017-MS1) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:16

Source: A407536-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.20		0.200	ug/L	5.00	0.0230 U	104	75-125			

Matrix Spike Dup (4L29017-MSD1) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:19

Source: A407536-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.20		0.200	ug/L	5.00	0.0230 U	104	75-125	0.05	20	

Post Spike (4L29017-PS1) Prepared: 01/07/2015 06:00 Analyzed: 01/07/2015 07:22

Source: A407536-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.99		0.200	ug/L	5.61	-0.00226	89	80-120			

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4L31003 - EPA 3005A

Blank (4L31003-BLK1) Prepared: 12/31/2014 09:13 Analyzed: 01/05/2015 12:44

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	7.12	U	10.0	ug/L							
Barium	0.630	U	10.0	ug/L							
Cadmium	0.170	U	1.00	ug/L							
Chromium	1.30	U	10.0	ug/L							
Lead	2.20	U	10.0	ug/L							
Selenium	6.60	U	40.0	ug/L							
Silver	1.20	U	10.0	ug/L							

LCS (4L31003-BS1) Prepared: 12/31/2014 09:13 Analyzed: 01/05/2015 12:47

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	494		10.0	ug/L	500		99	80-120			
Barium	489		10.0	ug/L	500		98	80-120			
Cadmium	49.5		1.00	ug/L	50.0		99	80-120			

QUALITY CONTROL DATA

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 4L31003 - EPA 3005A - Continued

LCS (4L31003-BS1) Continued Prepared: 12/31/2014 09:13 Analyzed: 01/05/2015 12:47

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chromium	492		10.0	ug/L	500		98	80-120			
Lead	486		10.0	ug/L	500		97	80-120			
Selenium	503		40.0	ug/L	500		101	80-120			
Silver	98.7		10.0	ug/L	100		99	80-120			

Matrix Spike (4L31003-MS1) Prepared: 12/31/2014 09:13 Analyzed: 01/05/2015 12:49

Source: B405683-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	516		10.0	ug/L	500	7.12 U	103	75-125			
Barium	669		10.0	ug/L	500	171	100	75-125			
Cadmium	49.6		1.00	ug/L	50.0	0.170 U	99	75-125			
Chromium	500		10.0	ug/L	500	1.30 U	100	75-125			
Lead	490		10.0	ug/L	500	2.20 U	98	75-125			
Selenium	514		40.0	ug/L	500	6.60 U	103	75-125			
Silver	102		10.0	ug/L	100	1.20 U	102	75-125			

Matrix Spike Dup (4L31003-MSD1) Prepared: 12/31/2014 09:13 Analyzed: 01/05/2015 12:50

Source: B405683-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	497		10.0	ug/L	500	7.12 U	99	75-125	4	20	
Barium	657		10.0	ug/L	500	171	97	75-125	2	20	
Cadmium	48.7		1.00	ug/L	50.0	0.170 U	97	75-125	2	20	
Chromium	490		10.0	ug/L	500	1.30 U	98	75-125	2	20	
Lead	481		10.0	ug/L	500	2.20 U	96	75-125	2	20	
Selenium	506		40.0	ug/L	500	6.60 U	101	75-125	2	20	
Silver	99.7		10.0	ug/L	100	1.20 U	100	75-125	2	20	

Batch 5A05003 - EPA 3005A

Blank (5A05003-BLK1) Prepared: 01/05/2015 14:04 Analyzed: 01/06/2015 10:40

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	7.12	U	10.0	ug/L							

LCS (5A05003-BS1) Prepared: 01/05/2015 14:04 Analyzed: 01/06/2015 10:43

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	492		10.0	ug/L	500		98	80-120			

Matrix Spike (5A05003-MS1) Prepared: 01/05/2015 14:04 Analyzed: 01/06/2015 10:45

Source: B500194-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	505		10.0	ug/L	500	7.12 U	101	75-125			

Matrix Spike Dup (5A05003-MSD1) Prepared: 01/05/2015 14:04 Analyzed: 01/06/2015 10:47

Source: B500194-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	492		10.0	ug/L	500	7.12 U	98	75-125	3	20	

FLAGS/NOTES AND DEFINITIONS

PQL	PQL: Practical Quantitation Limit.
B	Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
I	The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
J	Estimated value.
K	Off-scale low; Actual value is known to be less than the value given.
L	Off-scale high; Actual value is known to be greater than value given.
M	Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample exceeded the accepted holding time.
T	Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC); the numeric value represents the filtration volume.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not reported due to interference.
J-02	Result is estimated due to bias in the associated laboratory control sample (LCS).
J-04	Result estimated, calibration verification standard failed with high bias.
J-05	Result estimated, calibration verification standard failed with low bias.
Q-DOD	One or more quality control criteria failed
QL-02	The associated laboratory control sample exhibited high bias; since the result is ND, the impact on data quality is minimal.
QL-03	The associated laboratory control sample exhibited low bias; the reported result should be considered to be a minimum estimate.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-11	Precision between duplicate matrix spikes of the same sample was outside acceptance limits.
QS-03	Surrogate recovery outside acceptance limits
QV-01	The associated continuing calibration verification standard exhibited high bias; since the result is ND, the impact on data quality is minimal.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 211
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

www.encolabs.com

Client Name: GEC	Project Number: 3492E
Address: 919 Lake Baldwin Lane	Project Name/Desc: I-4 Level II
City/ST/Zip: Orlando, Fl 32814	PO # / Billing Info:
Tel: 407-898-1818 Fax: 407-898-1837	Reporting Contact: Rich McCormick
Sampler(s) Name, Affiliation (Print): Jerry W. Govemak	Billing Contact:
Sampler(s) Signature:	Site Location / Time Zone:

Requested Analyses

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due ___/___/___

Lab Workorder: A407685

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8151A, 8081B, %solids	Arsenic	8081B	8151A	F10 PRO	8270D TICS 8270D PAH SIM	8270D 8082A	Cd Ba As Ag Se Pb Hg Cr	8270D PAH SIM 8082A	8260 TICS 8260B		Sample Comments
							Preservation (See Codes) (Combine as necessary)											
1	CS-26	12/29/14	1330	Comp	SO	1	X	X										
2	CS-27	12/29/14	1335	Comp	SO	1	X	X										
3	TMW-8	12/29/14	1420	Grab	GW	2			X	X								
4	TMW-9	12/29/14	1255	Grab	GW	2					X							
5	TMW-9	12/30/14	1255	Grab	GW	1						X						
6	TMW-9	12/30/14	1255	Grab	GW	1								X				
7	TMW-9	12/30/14	1255	Grab	GW	1			X									
8	TMW-9	12/30/14	1255	Grab	GW	1									X			
9	TMW-9	12/30/14	1255	Grab	GW	1										X		

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By: Jerry W. Govemale	Date/Time: 12/10/14 1600
Comments/Special Reporting Requirements		Relinquished By: Jerry W. Govemale	Date/Time: 12/30/14 1600	Received By	Date/Time: 12/10/14 1600
		Relinquished By	Date/Time: 12/30/14 1600	Received By	Date/Time: 12/30/2014 1600
		Cooler #'s & Temps on Receipt: LG-271 4°C		Condition Upon Receipt: ___ Acceptable ___ Unacceptable	

Matrix : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

12/30/14 1600

ENCO Laboratories
Accurate. Timely. Responsive. Innovative.

10775 Central Port Drive
Orlando FL, 32824
Phone: 407.826.5314 FAX: 407.850.6945

Thursday, January 15, 2015
Geotechnical and Environmental (GE002)
Attn: Richard McCormick
919 Lake Baldwin Lane
Orlando, FL 32814

RE: Laboratory Results for
Project Number: 3492E, Project Name/Desc: I-4 Level II
ENCO Workorder(s): A500011

Dear Richard McCormick,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, January 2, 2015.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Orlando. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Ronald Wambles For David Camacho

Project Manager

Enclosure(s)

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: TMW-10 **Lab ID: A500011-01** **Sampled: 01/02/15 09:30** **Received: 01/02/15 13:40**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	07/01/15		01/06/15	09:18	01/07/15 11:19
EPA 7470A	01/30/15		01/06/15	12:07	01/07/15 08:24
EPA 8081B	01/09/15	02/14/15	01/05/15	05:55	01/10/15 01:27
EPA 8082A	01/02/16	01/02/16	01/05/15	05:55	01/08/15 12:23
EPA 8260B	01/16/15		01/08/15	00:00	01/08/15 16:57
EPA 8270D	01/09/15	02/14/15	01/05/15	14:00	01/08/15 21:07
EPA 8270D	01/09/15	02/17/15	01/08/15	09:57	01/12/15 15:08
FL-PRO	01/09/15	02/14/15	01/05/15	11:41	01/07/15 17:55

Client ID: SB-117 1.5' **Lab ID: A500011-02** **Sampled: 01/02/15 10:35** **Received: 01/02/15 13:40**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	07/01/15		01/07/15	09:09	01/08/15 12:26
EPA 7471B	01/30/15		01/05/15	12:27	01/06/15 07:45
EPA 8081B	01/16/15	02/15/15	01/06/15	14:00	01/12/15 17:05
EPA 8082A	01/02/16	01/02/16	01/06/15	14:00	01/12/15 17:05
EPA 8260B	01/16/15		01/08/15	00:00	01/08/15 11:52
EPA 8270D	01/16/15	02/15/15	01/06/15	09:24	01/08/15 21:28
EPA 8270D	01/16/15	02/15/15	01/06/15	10:52	01/12/15 17:28
FL-PRO	01/16/15	02/16/15	01/07/15	05:55	01/07/15 21:35

Client ID: SB-122 4.5' **Lab ID: A500011-03** **Sampled: 01/02/15 10:15** **Received: 01/02/15 13:40**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	07/01/15		01/07/15	09:09	01/08/15 12:36
EPA 7471B	01/30/15		01/05/15	12:27	01/06/15 07:48
EPA 8081B	01/16/15	02/15/15	01/06/15	14:00	01/12/15 17:16
EPA 8082A	01/02/16	01/02/16	01/06/15	14:00	01/12/15 17:16
EPA 8260B	01/16/15		01/08/15	00:00	01/08/15 12:19
EPA 8270D	01/16/15	02/15/15	01/06/15	10:52	01/12/15 17:56
FL-PRO	01/16/15	02/16/15	01/07/15	05:55	01/07/15 22:39

Client ID: SB-122 4.5' **Lab ID: A500011-03RE1** **Sampled: 01/02/15 10:15** **Received: 01/02/15 13:40**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8270D	01/16/15	02/15/15	01/06/15	09:24	01/15/15 14:41

SAMPLE DETECTION SUMMARY

Client ID: TMW-10 **Lab ID:** A500011-01

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	10.2		0.630	10.0	ug/L	EPA 6010C	

Client ID: SB-117 1.5' **Lab ID:** A500011-02

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Acetone	0.031		0.0028	0.0082	mg/kg dry	EPA 8260B	J-02, J-04, O-01
Barium - Total	9.35		0.0406	0.634	mg/kg dry	EPA 6010C	
Chromium - Total	0.671		0.0393	0.634	mg/kg dry	EPA 6010C	
Lead - Total	0.759		0.139	0.634	mg/kg dry	EPA 6010C	
Methylene Chloride	0.0015	IV	0.0011	0.0033	mg/kg dry	EPA 8260B	J-01, O-01

Client ID: SB-122 4.5' **Lab ID:** A500011-03

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Acetone	0.040		0.0030	0.0089	mg/kg dry	EPA 8260B	J-02, J-04, O-01
Arsenic - Total	0.643	I	0.514	0.722	mg/kg dry	EPA 6010C	
Barium - Total	58.2		0.0462	0.722	mg/kg dry	EPA 6010C	
Chromium - Total	6.04		0.0448	0.722	mg/kg dry	EPA 6010C	
Lead - Total	6.75		0.159	0.722	mg/kg dry	EPA 6010C	
Methylene Chloride	0.0048	V	0.0012	0.0035	mg/kg dry	EPA 8260B	J-01, O-01
Selenium - Total	1.69	I	0.520	2.89	mg/kg dry	EPA 6010C	

Client ID: SB-122 4.5' **Lab ID:** A500011-03RE1

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Chrysene	0.017	I	0.014	0.041	mg/kg dry	EPA 8270D	

ANALYTICAL RESULTS

Description: TMW-10 **Lab Sample ID:** A500011-01 **Received:** 01/02/15 13:40

Matrix: Ground Water **Sampled:** 01/02/15 09:30 **Work Order:** A500011

Project: I-4 Level II **Sampled By:** Jerry W. Governale

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6]^	0.61	U	ug/L	1	0.61	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,1,1-Trichloroethane [71-55-6]^	0.80	U	ug/L	1	0.80	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,1,2,2-Tetrachloroethane [79-34-5]^	0.54	U	ug/L	1	0.54	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,1,2-Trichloroethane [79-00-5]^	0.76	U	ug/L	1	0.76	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,1-Dichloroethane [75-34-3]^	0.62	U	ug/L	1	0.62	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,1-Dichloroethene [75-35-4]^	0.94	U	ug/L	1	0.94	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	QV-01
1,1-Dichloropropene [563-58-6]^	0.74	U	ug/L	1	0.74	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2,3-Trichlorobenzene [87-61-6]^	0.86	U	ug/L	1	0.86	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2,3-Trichloropropane [96-18-4]^	0.64	U	ug/L	1	0.64	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2,4-Trichlorobenzene [120-82-1]^	0.70	U	ug/L	1	0.70	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2,4-Trimethylbenzene [95-63-6]^	0.69	U	ug/L	1	0.69	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2-Dibromo-3-chloropropane [96-12-8]^	0.96	U	ug/L	1	0.96	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2-Dibromoethane [106-93-4]^	0.78	U	ug/L	1	0.78	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2-Dichlorobenzene [95-50-1]^	0.73	U	ug/L	1	0.73	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2-Dichloroethane [107-06-2]^	0.63	U	ug/L	1	0.63	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,2-Dichloropropane [78-87-5]^	0.80	U	ug/L	1	0.80	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,3,5-Trimethylbenzene [108-67-8]^	0.58	U	ug/L	1	0.58	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,3-Dichlorobenzene [541-73-1]^	0.77	U	ug/L	1	0.77	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
1,3-Dichloropropane [142-28-9]^	0.60	U	ug/L	1	0.60	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	QL-02, QV-01
1,4-Dichlorobenzene [106-46-7]^	0.76	U	ug/L	1	0.76	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
2,2-Dichloropropane [594-20-7]^	0.66	U	ug/L	1	0.66	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
2-Butanone [78-93-3]^	4.5	U	ug/L	1	4.5	5.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
2-Chloroethyl Vinyl Ether [110-75-8]^	1.9	U	ug/L	1	1.9	5.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
2-Chlorotoluene [95-49-8]^	0.68	U	ug/L	1	0.68	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
2-Hexanone [591-78-6]^	1.4	U	ug/L	1	1.4	5.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	QL-02, QV-01
4-Chlorotoluene [106-43-4]^	0.65	U	ug/L	1	0.65	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
4-Isopropyltoluene [99-87-6]^	0.80	U	ug/L	1	0.80	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
4-Methyl-2-pentanone [108-10-1]^	0.79	U	ug/L	1	0.79	5.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	QV-01
Acetone [67-64-1]^	5.0	U	ug/L	1	5.0	10	5A08031	EPA 8260B	01/08/15 16:57	KKW	QV-01
Benzene [71-43-2]^	0.71	U	ug/L	1	0.71	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Bromobenzene [108-86-1]^	0.77	U	ug/L	1	0.77	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Bromochloromethane [74-97-5]^	0.94	U	ug/L	1	0.94	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Bromodichloromethane [75-27-4]^	0.52	U	ug/L	1	0.52	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Bromoform [75-25-2]^	0.75	U	ug/L	1	0.75	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Bromomethane [74-83-9]^	0.95	U	ug/L	1	0.95	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	QV-01
Carbon disulfide [75-15-0]^	2.6	U	ug/L	1	2.6	5.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Carbon tetrachloride [56-23-5]^	0.94	U	ug/L	1	0.94	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Chlorobenzene [108-90-7]^	0.72	U	ug/L	1	0.72	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Chloroethane [75-00-3]^	0.98	U	ug/L	1	0.98	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	QV-01
Chloroform [67-66-3]^	0.80	U	ug/L	1	0.80	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Chloromethane [74-87-3]^	0.82	U	ug/L	1	0.82	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	QV-01
cis-1,2-Dichloroethene [156-59-2]^	0.53	U	ug/L	1	0.53	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
cis-1,3-Dichloropropene [10061-01-5]^	0.59	U	ug/L	1	0.59	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Dibromochloromethane [124-48-1]^	0.44	U	ug/L	1	0.44	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Dibromomethane [74-95-3]^	0.84	U	ug/L	1	0.84	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Dichlorodifluoromethane [75-71-8]^	0.74	U	ug/L	1	0.74	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	

ANALYTICAL RESULTS

Description: TMW-10 **Lab Sample ID:** A500011-01 **Received:** 01/02/15 13:40

Matrix: Ground Water **Sampled:** 01/02/15 09:30 **Work Order:** A500011

Project: I-4 Level II **Sampled By:** Jerry W. Governale

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Ethylbenzene [100-41-4]^	0.69	U	ug/L	1	0.69	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Hexachlorobutadiene [87-68-3]^	0.70	U	ug/L	1	0.70	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Isopropylbenzene [98-82-8]^	0.67	U	ug/L	1	0.67	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
m,p-Xylenes [108-38-3/106-42-3]^	1.3	U	ug/L	1	1.3	2.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Methylene chloride [75-09-2]^	2.0	U	ug/L	1	2.0	5.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Methyl-tert-Butyl Ether [1634-04-4]^	0.60	U	ug/L	1	0.60	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Naphthalene [91-20-3]^	0.82	U	ug/L	1	0.82	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
n-Butyl Benzene [104-51-8]^	0.70	U	ug/L	1	0.70	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
n-Propyl Benzene [103-65-1]^	0.70	U	ug/L	1	0.70	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
o-Xylene [95-47-6]^	0.53	U	ug/L	1	0.53	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
sec-Butylbenzene [135-98-8]^	0.74	U	ug/L	1	0.74	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Styrene [100-42-5]^	0.61	U	ug/L	1	0.61	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
tert-Butylbenzene [98-06-6]^	0.64	U	ug/L	1	0.64	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Tetrachloroethene [127-18-4]^	0.76	U	ug/L	1	0.76	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Toluene [108-88-3]^	0.72	U	ug/L	1	0.72	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
trans-1,2-Dichloroethene [156-60-5]^	0.73	U	ug/L	1	0.73	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
trans-1,3-Dichloropropene [10061-02-6]^	0.73	U	ug/L	1	0.73	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Trichloroethene [79-01-6]^	0.89	U	ug/L	1	0.89	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Trichlorofluoromethane [75-69-4]^	0.94	U	ug/L	1	0.94	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Vinyl chloride [75-01-4]^	0.71	U	ug/L	1	0.71	1.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	
Xylenes (Total) [1330-20-7]^	1.3	U	ug/L	1	1.3	2.0	5A08031	EPA 8260B	01/08/15 16:57	KKW	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*55*	*1*	*50.0*	*109 %*	*41-142*	*5A08031*	*EPA 8260B*	*01/08/15 16:57*	*KKW*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*53-146*	*5A08031*	*EPA 8260B*	*01/08/15 16:57*	*KKW*	
Toluene-d8	*41*	*1*	*50.0*	*83 %*	*41-146*	*5A08031*	*EPA 8260B*	*01/08/15 16:57*	*KKW*	

Tentatively Identified Compounds by Volatile GCMS

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Tentatively Identified Compounds	**0.0**		ug/L	1			5A08031	EPA 8260B	01/08/15 16:57	KKW	

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,2,4-Trichlorobenzene [120-82-1]^	3.3	U	ug/L	1	3.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
1,2-Dichlorobenzene [95-50-1]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
1,3-Dichlorobenzene [541-73-1]^	3.4	U	ug/L	1	3.4	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
1,4-Dichlorobenzene [106-46-7]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
1-Methylnaphthalene [90-12-0]^	3.1	U	ug/L	1	3.1	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2,4,5-Trichlorophenol [95-95-4]^	3.9	U	ug/L	1	3.9	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2,4,6-Trichlorophenol [88-06-2]^	6.4	U	ug/L	1	6.4	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2,4-Dichlorophenol [120-83-2]^	6.5	U	ug/L	1	6.5	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2,4-Dimethylphenol [105-67-9]^	6.4	U	ug/L	1	6.4	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2,4-Dinitrophenol [51-28-5]^	7.7	U	ug/L	1	7.7	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2,4-Dinitrotoluene [121-14-2]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
2,6-Dinitrotoluene [606-20-2]^	2.9	U	ug/L	1	2.9	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
2-Chloronaphthalene [91-58-7]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2-Chlorophenol [95-57-8]^	7.4	U	ug/L	1	7.4	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	

ANALYTICAL RESULTS

Description: TMW-10 **Lab Sample ID:** A500011-01 **Received:** 01/02/15 13:40

Matrix: Ground Water **Sampled:** 01/02/15 09:30 **Work Order:** A500011

Project: I-4 Level II **Sampled By:** Jerry W. Governale

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2-Methyl-4,6-dinitrophenol [534-52-1]^	6.0	U	ug/L	1	6.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2-Methylnaphthalene [91-57-6]^	3.8	U	ug/L	1	3.8	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2-Methylphenol [95-48-7]^	3.5	U	ug/L	1	3.5	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2-Nitroaniline [88-74-4]^	3.3	U	ug/L	1	3.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
2-Nitrophenol [88-75-5]^	5.2	U	ug/L	1	5.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
3 & 4-Methylphenol [108-39-4/106-44-5]^	8.2	U	ug/L	1	8.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
3,3'-Dichlorobenzidine [91-94-1]^	3.3	U	ug/L	1	3.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
3-Nitroaniline [99-09-2]^	3.3	U	ug/L	1	3.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
4-Bromophenyl-phenylether [101-55-3]^	3.3	U	ug/L	1	3.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
4-Chloro-3-methylphenol [59-50-7]^	7.3	U	ug/L	1	7.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
4-Chloroaniline [106-47-8]^	4.3	U	ug/L	1	4.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
4-Chlorophenyl-phenylether [7005-72-3]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
4-Nitroaniline [100-01-6]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
4-Nitrophenol [100-02-7]^	7.9	U	ug/L	1	7.9	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Acenaphthene [83-32-9]^	3.0	U	ug/L	1	3.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Acenaphthylene [208-96-8]^	3.3	U	ug/L	1	3.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Anthracene [120-12-7]^	3.0	U	ug/L	1	3.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Benzidine [92-87-5]^	7.1	U	ug/L	1	7.1	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Benzo(a)anthracene [56-55-3]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Benzo(a)pyrene [50-32-8]^	3.1	U	ug/L	1	3.1	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Benzo(b)fluoranthene [205-99-2]^	3.4	U	ug/L	1	3.4	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Benzo(g,h,i)perylene [191-24-2]^	3.7	U	ug/L	1	3.7	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Benzo(k)fluoranthene [207-08-9]^	3.3	U	ug/L	1	3.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Benzoic acid [65-85-0]^	15	U	ug/L	1	15	50	5A08009	EPA 8270D	01/12/15 15:08	jfi	J-05
Benzyl alcohol [100-51-6]^	3.9	U	ug/L	1	3.9	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Bis(2-chloroethoxy)methane [111-91-1]^	3.3	U	ug/L	1	3.3	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02, QV-01
Bis(2-chloroethyl)ether [111-44-4]^	3.8	U	ug/L	1	3.8	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Bis(2-chloroisopropyl)ether [108-60-1]^	3.5	U	ug/L	1	3.5	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Bis(2-ethylhexyl)phthalate [117-81-7]^	3.5	U	ug/L	1	3.5	5.0	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Butylbenzylphthalate [85-68-7]^	5.1	U	ug/L	1	5.1	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Chrysene [218-01-9]^	3.0	U	ug/L	1	3.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Dibenzo(a,h)anthracene [53-70-3]^	3.8	U	ug/L	1	3.8	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Dibenzofuran [132-64-9]^	2.8	U	ug/L	1	2.8	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Diethylphthalate [84-66-2]^	3.0	U	ug/L	1	3.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Dimethylphthalate [131-11-3]^	3.0	U	ug/L	1	3.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Di-n-butylphthalate [84-74-2]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Di-n-octylphthalate [117-84-0]^	3.6	U	ug/L	1	3.6	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Fluoranthene [206-44-0]^	4.0	U	ug/L	1	4.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Fluorene [86-73-7]^	2.9	U	ug/L	1	2.9	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Hexachlorobenzene [118-74-1]^	3.0	U	ug/L	1	3.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Hexachlorobutadiene [87-68-3]^	4.1	U	ug/L	1	4.1	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Hexachlorocyclopentadiene [77-47-4]^	3.8	U	ug/L	1	3.8	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Hexachloroethane [67-72-1]^	3.0	U	ug/L	1	3.0	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	4.1	U	ug/L	1	4.1	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Isophorone [78-59-1]^	4.5	U	ug/L	1	4.5	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Naphthalene [91-20-3]^	3.6	U	ug/L	1	3.6	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Nitrobenzene [98-95-3]^	3.2	U	ug/L	1	3.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	

ANALYTICAL RESULTS

Description: TMW-10 **Lab Sample ID:** A500011-01 **Received:** 01/02/15 13:40

Matrix: Ground Water **Sampled:** 01/02/15 09:30 **Work Order:** A500011

Project: I-4 Level II **Sampled By:** Jerry W. Governale

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
N-Nitrosodimethylamine [62-75-9]^	3.8	U	ug/L	1	3.8	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
N-Nitroso-di-n-propylamine [621-64-7]^	4.5	U	ug/L	1	4.5	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4]^	5.4	U	ug/L	1	5.4	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Pentachlorophenol [87-86-5]^	8.2	U	ug/L	1	8.2	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Phenanthrene [85-01-8]^	2.8	U	ug/L	1	2.8	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Phenol [108-95-2]^	5.6	U	ug/L	1	5.6	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	
Pyrene [129-00-0]^	4.1	U	ug/L	1	4.1	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	QL-02
Pyridine [110-86-1]^	3.5	U	ug/L	1	3.5	10	5A08009	EPA 8270D	01/12/15 15:08	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*53*	*1*	*50.0*	*105 %*	*47-128*	*5A08009*	*EPA 8270D*	*01/12/15 15:08*	*jfi*	
2-Fluorobiphenyl	*49*	*1*	*50.0*	*99 %*	*44-102*	*5A08009*	*EPA 8270D*	*01/12/15 15:08*	*jfi*	
2-Fluorophenol	*26*	*1*	*50.0*	*53 %*	*25-79*	*5A08009*	*EPA 8270D*	*01/12/15 15:08*	*jfi*	
Nitrobenzene-d5	*46*	*1*	*50.0*	*93 %*	*43-112*	*5A08009*	*EPA 8270D*	*01/12/15 15:08*	*jfi*	
Phenol-d5	*19*	*1*	*50.0*	*39 %*	*14-54*	*5A08009*	*EPA 8270D*	*01/12/15 15:08*	*jfi*	
Terphenyl-d14	*70*	*1*	*50.0*	*141 %*	*65-122*	*5A08009*	*EPA 8270D*	*01/12/15 15:08*	*jfi*	*QS-03*

Tentatively Identified Compounds by Semivolatile GCMS

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Tentatively Identified Compounds	**0.0**		ug/L	1			5A08009	EPA 8270D	01/12/15 15:08	jfi	

Semivolatile Organic Compounds by GCMS SIM

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1-Methylnaphthalene [90-12-0]^	0.047	U	ug/L	1	0.047	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
2-Methylnaphthalene [91-57-6]^	0.044	U	ug/L	1	0.044	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Acenaphthene [83-32-9]^	0.037	U	ug/L	1	0.037	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Acenaphthylene [208-96-8]^	0.036	U	ug/L	1	0.036	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Anthracene [120-12-7]^	0.036	U	ug/L	1	0.036	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Benzo(a)anthracene [56-55-3]^	0.037	U	ug/L	1	0.037	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	QL-02
Benzo(a)pyrene [50-32-8]^	0.043	U	ug/L	1	0.043	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.059	U	ug/L	1	0.059	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.040	U	ug/L	1	0.040	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.046	U	ug/L	1	0.046	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Chrysene [218-01-9]^	0.051	U	ug/L	1	0.051	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.026	U	ug/L	1	0.026	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Fluoranthene [206-44-0]^	0.051	U	ug/L	1	0.051	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Fluorene [86-73-7]^	0.038	U	ug/L	1	0.038	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.037	U	ug/L	1	0.037	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	QL-02
Naphthalene [91-20-3]^	0.035	U	ug/L	1	0.035	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Phenanthrene [85-01-8]^	0.039	U	ug/L	1	0.039	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	
Pyrene [129-00-0]^	0.048	U	ug/L	1	0.048	0.10	5A05015	EPA 8270D	01/08/15 21:07	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
p-Terphenyl	*8.7*	*1*	*5.71*	*153 %*	*66-136*	*5A05015*	*EPA 8270D*	*01/08/15 21:07*	*jfi*	*QS-03*

ANALYTICAL RESULTS

Description: TMW-10 | **Lab Sample ID:** A500011-01 | **Received:** 01/02/15 13:40
Matrix: Ground Water | **Sampled:** 01/02/15 09:30 | **Work Order:** A500011
Project: I-4 Level II | **Sampled By:** Jerry W. Governale

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.018	U	ug/L	1	0.018	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
4,4'-DDE [72-55-9]^	0.036	U	ug/L	1	0.036	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
4,4'-DDT [50-29-3]^	0.025	U	ug/L	1	0.025	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Aldrin [309-00-2]^	0.032	U	ug/L	1	0.032	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
alpha-BHC [319-84-6]^	0.026	U	ug/L	1	0.026	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
beta-BHC [319-85-7]^	0.022	U	ug/L	1	0.022	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Chlordane (tech) [12789-03-6]^	0.32	U	ug/L	1	0.32	0.50	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Chlordane-alpha [5103-71-9]^	0.022	U	ug/L	1	0.022	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Chlordane-gamma [5566-34-7]^	0.018	U	ug/L	1	0.018	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
delta-BHC [319-86-8]^	0.019	U	ug/L	1	0.019	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Dieldrin [60-57-1]^	0.017	U	ug/L	1	0.017	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Endosulfan I [959-98-8]^	0.016	U	ug/L	1	0.016	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Endosulfan II [33213-65-9]^	0.017	U	ug/L	1	0.017	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Endosulfan sulfate [1031-07-8]^	0.016	U	ug/L	1	0.016	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Endrin [72-20-8]^	0.014	U	ug/L	1	0.014	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Endrin aldehyde [7421-93-4]^	0.020	U	ug/L	1	0.020	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Endrin ketone [53494-70-5]^	0.017	U	ug/L	1	0.017	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
gamma-BHC [58-89-9]^	0.020	U	ug/L	1	0.020	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Heptachlor [76-44-8]^	0.018	U	ug/L	1	0.018	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Heptachlor epoxide [1024-57-3]^	0.018	U	ug/L	1	0.018	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Isodrin [465-73-6]^	0.030	U	ug/L	1	0.030	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Methoxychlor [72-43-5]^	0.018	U	ug/L	1	0.018	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Mirex [2385-85-5]^	0.034	U	ug/L	1	0.034	0.050	5A05001	EPA 8081B	01/10/15 01:27	JJB	
Toxaphene [8001-35-2]^	0.48	U	ug/L	1	0.48	0.50	5A05001	EPA 8081B	01/10/15 01:27	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.57*	*1*	*1.00*	*57 %*	*38-142*	*5A05001*	*EPA 8081B*	*01/10/15 01:27*	*JJB*	
Decachlorobiphenyl	*0.68*	*1*	*1.00*	*68 %*	*34-159*	*5A05001*	*EPA 8081B*	*01/10/15 01:27*	*JJB*	

Polychlorinated Biphenyls by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9]^	0.49	U	ug/L	1	0.49	0.50	5A05002	EPA 8082A	01/08/15 12:23	JJB	
PCB-1221 [11104-28-2]^	0.46	U	ug/L	1	0.46	0.50	5A05002	EPA 8082A	01/08/15 12:23	JJB	
PCB-1232 [11141-16-5]^	0.47	U	ug/L	1	0.47	0.50	5A05002	EPA 8082A	01/08/15 12:23	JJB	
PCB-1248 [12672-29-6]^	0.49	U	ug/L	1	0.49	0.50	5A05002	EPA 8082A	01/08/15 12:23	JJB	
PCB-1254 [11097-69-1]^	0.50	U	ug/L	1	0.50	0.50	5A05002	EPA 8082A	01/08/15 12:23	JJB	
PCB-1260 [11096-82-5]^	0.48	U	ug/L	1	0.48	0.50	5A05002	EPA 8082A	01/08/15 12:23	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.84*	*1*	*1.00*	*84 %*	*38-142*	*5A05002*	*EPA 8082A*	*01/08/15 12:23*	*JJB*	
Decachlorobiphenyl	*0.80*	*1*	*1.00*	*80 %*	*34-159*	*5A05002*	*EPA 8082A*	*01/08/15 12:23*	*JJB*	

ANALYTICAL RESULTS

Description: TMW-10 **Lab Sample ID:** A500011-01 **Received:** 01/02/15 13:40

Matrix: Ground Water **Sampled:** 01/02/15 09:30 **Work Order:** A500011

Project: I-4 Level II **Sampled By:** Jerry W. Governale

FL Petroleum Range Organics

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
TPH (C8-C40)^	0.10	U	mg/L	1	0.10	0.17	5A05012	FL-PRO	01/07/15 17:55	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
n-Nonatriacontane	*0.065*	*1*	*0.100*	*65 %*	*36-144*	*5A05012*	*FL-PRO*	*01/07/15 17:55*	*JJB*	
o-Terphenyl	*0.045*	*1*	*0.0500*	*90 %*	*39-156*	*5A05012*	*FL-PRO*	*01/07/15 17:55*	*JJB*	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6]^	0.0230	U	ug/L	1	0.0230	0.200	4L29017	EPA 7470A	01/07/15 08:24	JMA	

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	7.12	U	ug/L	1	7.12	10.0	5A06002	EPA 6010C	01/07/15 11:19	ACV	
Barium [7440-39-3]^	**10.2**		ug/L	1	0.630	10.0	5A06002	EPA 6010C	01/07/15 11:19	ACV	
Cadmium [7440-43-9]^	0.170	U	ug/L	1	0.170	1.00	5A06002	EPA 6010C	01/07/15 11:19	ACV	
Chromium [7440-47-3]^	1.30	U	ug/L	1	1.30	10.0	5A06002	EPA 6010C	01/07/15 11:19	ACV	
Lead [7439-92-1]^	2.20	U	ug/L	1	2.20	10.0	5A06002	EPA 6010C	01/07/15 11:19	ACV	
Selenium [7782-49-2]^	6.60	U	ug/L	1	6.60	40.0	5A06002	EPA 6010C	01/07/15 11:19	ACV	
Silver [7440-22-4]^	1.20	U	ug/L	1	1.20	10.0	5A06002	EPA 6010C	01/07/15 11:19	ACV	

ANALYTICAL RESULTS

Description: SB-117 1.5' | **Lab Sample ID:** A500011-02 | **Received:** 01/02/15 13:40

Matrix: Soil | **Sampled:** 01/02/15 10:35 | **Work Order:** A500011

Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 95.06

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,1,1-Trichloroethane [71-55-6]^	0.0006	U	mg/kg dry	1	0.0006	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,1,2,2-Tetrachloroethane [79-34-5]^	0.0005	U	mg/kg dry	1	0.0005	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,1,2-Trichloroethane [79-00-5]^	0.0010	U	mg/kg dry	1	0.0010	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,1-Dichloroethane [75-34-3]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,1-Dichloroethene [75-35-4]^	0.0010	U	mg/kg dry	1	0.0010	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	QV-01
1,1-Dichloropropene [563-58-6]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2,3-Trichlorobenzene [87-61-6]^	0.0015	U	mg/kg dry	1	0.0015	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2,3-Trichloropropane [96-18-4]^	0.0004	U	mg/kg dry	1	0.0004	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2,4-Trichlorobenzene [120-82-1]^	0.0014	U	mg/kg dry	1	0.0014	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2,4-Trimethylbenzene [95-63-6]^	0.0011	U	mg/kg dry	1	0.0011	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2-Dibromo-3-chloropropane [96-12-8]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2-Dibromoethane [106-93-4]^	0.0005	U	mg/kg dry	1	0.0005	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2-Dichlorobenzene [95-50-1]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2-Dichloroethane [107-06-2]^	0.0005	U	mg/kg dry	1	0.0005	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,2-Dichloropropane [78-87-5]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,3,5-Trimethylbenzene [108-67-8]^	0.0010	U	mg/kg dry	1	0.0010	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,3-Dichlorobenzene [541-73-1]^	0.0008	U	mg/kg dry	1	0.0008	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
1,3-Dichloropropane [142-28-9]^	0.0006	U	mg/kg dry	1	0.0006	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	QV-01
1,4-Dichlorobenzene [106-46-7]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
2,2-Dichloropropane [594-20-7]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
2-Butanone [78-93-3]^	0.0030	U	mg/kg dry	1	0.0030	0.0082	5A08016	EPA 8260B	01/08/15 11:52	KKW	
2-Chloroethyl Vinyl Ether [110-75-8]^	0.0028	U	mg/kg dry	1	0.0028	0.0082	5A08016	EPA 8260B	01/08/15 11:52	KKW	
2-Chlorotoluene [95-49-8]^	0.0008	U	mg/kg dry	1	0.0008	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
2-Hexanone [591-78-6]^	0.0015	U	mg/kg dry	1	0.0015	0.0082	5A08016	EPA 8260B	01/08/15 11:52	KKW	QL-02, QV-01
4-Chlorotoluene [106-43-4]^	0.0010	U	mg/kg dry	1	0.0010	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
4-Isopropyltoluene [99-87-6]^	0.0012	U	mg/kg dry	1	0.0012	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
4-Methyl-2-pentanone [108-10-1]^	0.0023	U	mg/kg dry	1	0.0023	0.0082	5A08016	EPA 8260B	01/08/15 11:52	KKW	QL-02, QV-01
Acetone [67-64-1]^	**0.031**		mg/kg dry	1	0.0028	0.0082	5A08016	EPA 8260B	01/08/15 11:52	KKW	J-02, J-04, O-01
Benzene [71-43-2]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Bromobenzene [108-86-1]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Bromochloromethane [74-97-5]^	0.0006	U	mg/kg dry	1	0.0006	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Bromodichloromethane [75-27-4]^	0.0006	U	mg/kg dry	1	0.0006	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Bromoform [75-25-2]^	0.0005	U	mg/kg dry	1	0.0005	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Bromomethane [74-83-9]^	0.0015	U	mg/kg dry	1	0.0015	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	QV-01
Carbon disulfide [75-15-0]^	0.0035	U	mg/kg dry	1	0.0035	0.0082	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Carbon Tetrachloride [56-23-5]^	0.0010	U	mg/kg dry	1	0.0010	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Chlorobenzene [108-90-7]^	0.0008	U	mg/kg dry	1	0.0008	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Chloroethane [75-00-3]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	QL-02, QV-01
Chloroform [67-66-3]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Chloromethane [74-87-3]^	0.0011	U	mg/kg dry	1	0.0011	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	QV-01
cis-1,2-Dichloroethene [156-59-2]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
cis-1,3-Dichloropropene [10061-01-5]^	0.0005	U	mg/kg dry	1	0.0005	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Dibromochloromethane [124-48-1]^	0.0004	U	mg/kg dry	1	0.0004	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	

ANALYTICAL RESULTS

Description: SB-117 1.5' | **Lab Sample ID:** A500011-02 | **Received:** 01/02/15 13:40

Matrix: Soil | **Sampled:** 01/02/15 10:35 | **Work Order:** A500011

Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 95.06

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Dibromomethane [74-95-3]^	0.0006	U	mg/kg dry	1	0.0006	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Dichlorodifluoromethane [75-71-8]^	0.0010	U	mg/kg dry	1	0.0010	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Ethylbenzene [100-41-4]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Hexachlorobutadiene [87-68-3]^	0.0015	U	mg/kg dry	1	0.0015	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Isopropylbenzene [98-82-8]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
m,p-Xylenes [108-38-3/106-42-3]^	0.0016	U	mg/kg dry	1	0.0016	0.0033	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Methylene Chloride [75-09-2]^	**0.0015**	IV	mg/kg dry	1	0.0011	0.0033	5A08016	EPA 8260B	01/08/15 11:52	KKW	J-01, O-01
Methyl-tert-Butyl Ether [1634-04-4]^	0.0004	U	mg/kg dry	1	0.0004	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Naphthalene [91-20-3]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
n-Butyl Benzene [104-51-8]^	0.0015	U	mg/kg dry	1	0.0015	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
n-Propyl Benzene [103-65-1]^	0.0010	U	mg/kg dry	1	0.0010	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
o-Xylene [95-47-6]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
sec-Butylbenzene [135-98-8]^	0.0011	U	mg/kg dry	1	0.0011	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Styrene [100-42-5]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
tert-Butylbenzene [98-06-6]^	0.0010	U	mg/kg dry	1	0.0010	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Tetrachloroethene [127-18-4]^	0.0008	U	mg/kg dry	1	0.0008	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Toluene [108-88-3]^	0.0008	U	mg/kg dry	1	0.0008	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
trans-1,2-Dichloroethene [156-60-5]^	0.0011	U	mg/kg dry	1	0.0011	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
trans-1,3-Dichloropropene [10061-02-6]^	0.0005	U	mg/kg dry	1	0.0005	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Trichloroethene [79-01-6]^	0.0008	U	mg/kg dry	1	0.0008	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Trichlorofluoromethane [75-69-4]^	0.0009	U	mg/kg dry	1	0.0009	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Vinyl chloride [75-01-4]^	0.0007	U	mg/kg dry	1	0.0007	0.0016	5A08016	EPA 8260B	01/08/15 11:52	KKW	
Xylenes (Total) [1330-20-7]^	0.0016	U	mg/kg dry	1	0.0016	0.0033	5A08016	EPA 8260B	01/08/15 11:52	KKW	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*63*	*1*	*50.0*	*126 %*	*71-126*	*5A08016*	*EPA 8260B*	*01/08/15 11:52*	*KKW*	
Dibromofluoromethane	*51*	*1*	*50.0*	*102 %*	*72-133*	*5A08016*	*EPA 8260B*	*01/08/15 11:52*	*KKW*	
Toluene-d8	*51*	*1*	*50.0*	*103 %*	*80-123*	*5A08016*	*EPA 8260B*	*01/08/15 11:52*	*KKW*	

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,2,4-Trichlorobenzene [120-82-1]^	0.12	U	mg/kg dry	1	0.12	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
1,2-Dichlorobenzene [95-50-1]^	0.13	U	mg/kg dry	1	0.13	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
1,3-Dichlorobenzene [541-73-1]^	0.13	U	mg/kg dry	1	0.13	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
1,4-Dichlorobenzene [106-46-7]^	0.11	U	mg/kg dry	1	0.11	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
1-Methylnaphthalene [90-12-0]^	0.10	U	mg/kg dry	1	0.10	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2,4,5-Trichlorophenol [95-95-4]^	0.070	U	mg/kg dry	1	0.070	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2,4,6-Trichlorophenol [88-06-2]^	0.16	U	mg/kg dry	1	0.16	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2,4-Dichlorophenol [120-83-2]^	0.26	U	mg/kg dry	1	0.26	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2,4-Dimethylphenol [105-67-9]^	0.24	U	mg/kg dry	1	0.24	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	QM-07
2,4-Dinitrophenol [51-28-5]^	0.094	U	mg/kg dry	1	0.094	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2,4-Dinitrotoluene [121-14-2]^	0.17	U	mg/kg dry	1	0.17	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2,6-Dinitrotoluene [606-20-2]^	0.19	U	mg/kg dry	1	0.19	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2-Chloronaphthalene [91-58-7]^	0.10	U	mg/kg dry	1	0.10	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2-Chlorophenol [95-57-8]^	0.24	U	mg/kg dry	1	0.24	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2-Methyl-4,6-dinitrophenol [534-52-1]^	0.29	U	mg/kg dry	1	0.29	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2-Methylnaphthalene [91-57-6]^	0.13	U	mg/kg dry	1	0.13	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	

ANALYTICAL RESULTS

Description: SB-117 1.5' | **Lab Sample ID:** A500011-02 | **Received:** 01/02/15 13:40

Matrix: Soil | **Sampled:** 01/02/15 10:35 | **Work Order:** A500011

Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 95.06

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2-Methylphenol [95-48-7]^	0.12	U	mg/kg dry	1	0.12	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2-Nitroaniline [88-74-4]^	0.089	U	mg/kg dry	1	0.089	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
2-Nitrophenol [88-75-5]^	0.27	U	mg/kg dry	1	0.27	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
3 & 4-Methylphenol [108-39-4/106-44-5]^	0.26	U	mg/kg dry	1	0.26	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
3,3'-Dichlorobenzidine [91-94-1]^	0.22	U	mg/kg dry	1	0.22	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	QL-02
3-Nitroaniline [99-09-2]^	0.084	U	mg/kg dry	1	0.084	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
4-Bromophenyl-phenylether [101-55-3]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
4-Chloro-3-methylphenol [59-50-7]^	0.29	U	mg/kg dry	1	0.29	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
4-Chloroaniline [106-47-8]^	0.068	U	mg/kg dry	1	0.068	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
4-Chlorophenyl-phenylether [7005-72-3]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
4-Nitroaniline [100-01-6]^	0.27	U	mg/kg dry	1	0.27	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
4-Nitrophenol [100-02-7]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Acenaphthene [83-32-9]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Acenaphthylene [208-96-8]^	0.13	U	mg/kg dry	1	0.13	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Anthracene [120-12-7]^	0.16	U	mg/kg dry	1	0.16	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Benzidine [92-87-5]^	0.090	U	mg/kg dry	1	0.090	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	J-02
Benzo(a)anthracene [56-55-3]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Benzo(a)pyrene [50-32-8]^	0.082	U	mg/kg dry	1	0.082	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.12	U	mg/kg dry	1	0.12	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.17	U	mg/kg dry	1	0.17	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.12	U	mg/kg dry	1	0.12	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Benzoic acid [65-85-0]^	0.50	U	mg/kg dry	1	0.50	1.8	5A06007	EPA 8270D	01/12/15 17:28	jfi	J-05
Benzyl alcohol [100-51-6]^	0.17	U	mg/kg dry	1	0.17	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Bis(2-chloroethoxy)methane [111-91-1]^	0.16	U	mg/kg dry	1	0.16	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	QV-01
Bis(2-chloroethyl)ether [111-44-4]^	0.15	U	mg/kg dry	1	0.15	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Bis(2-chloroisopropyl)ether [108-60-1]^	0.10	U	mg/kg dry	1	0.10	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Bis(2-ethylhexyl)phthalate [117-81-7]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Butylbenzylphthalate [85-68-7]^	0.15	U	mg/kg dry	1	0.15	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Chrysene [218-01-9]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.15	U	mg/kg dry	1	0.15	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Dibenzofuran [132-64-9]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Diethylphthalate [84-66-2]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Dimethylphthalate [131-11-3]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Di-n-butylphthalate [84-74-2]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Di-n-octylphthalate [117-84-0]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Fluoranthene [206-44-0]^	0.12	U	mg/kg dry	1	0.12	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Fluorene [86-73-7]^	0.15	U	mg/kg dry	1	0.15	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Hexachlorobenzene [118-74-1]^	0.13	U	mg/kg dry	1	0.13	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Hexachlorobutadiene [87-68-3]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Hexachlorocyclopentadiene [77-47-4]^	0.16	U	mg/kg dry	1	0.16	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Hexachloroethane [67-72-1]^	0.11	U	mg/kg dry	1	0.11	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.15	U	mg/kg dry	1	0.15	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Isophorone [78-59-1]^	0.18	U	mg/kg dry	1	0.18	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Naphthalene [91-20-3]^	0.13	U	mg/kg dry	1	0.13	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Nitrobenzene [98-95-3]^	0.16	U	mg/kg dry	1	0.16	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
N-Nitrosodimethylamine [62-75-9]^	0.13	U	mg/kg dry	1	0.13	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
N-Nitroso-di-n-propylamine [621-64-7]^	0.16	U	mg/kg dry	1	0.16	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	

ANALYTICAL RESULTS

Description: SB-117 1.5' | **Lab Sample ID:** A500011-02 | **Received:** 01/02/15 13:40
Matrix: Soil | **Sampled:** 01/02/15 10:35 | **Work Order:** A500011
Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 95.06

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4]^	0.24	U	mg/kg dry	1	0.24	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Pentachlorophenol [87-86-5]^	0.22	U	mg/kg dry	1	0.22	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Phenanthrene [85-01-8]^	0.14	U	mg/kg dry	1	0.14	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Phenol [108-95-2]^	0.10	U	mg/kg dry	1	0.10	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Pyrene [129-00-0]^	0.12	U	mg/kg dry	1	0.12	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	
Pyridine [110-86-1]^	0.16	U	mg/kg dry	1	0.16	0.35	5A06007	EPA 8270D	01/12/15 17:28	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*1.6*	*1*	*1.76*	*91 %*	*23-137*	*5A06007*	*EPA 8270D*	*01/12/15 17:28*	*jfi*	
2-Fluorobiphenyl	*1.4*	*1*	*1.76*	*82 %*	*29-119*	*5A06007*	*EPA 8270D*	*01/12/15 17:28*	*jfi*	
2-Fluorophenol	*1.6*	*1*	*1.76*	*89 %*	*20-124*	*5A06007*	*EPA 8270D*	*01/12/15 17:28*	*jfi*	
Nitrobenzene-d5	*1.4*	*1*	*1.76*	*78 %*	*17-126*	*5A06007*	*EPA 8270D*	*01/12/15 17:28*	*jfi*	
Phenol-d5	*1.6*	*1*	*1.76*	*90 %*	*15-131*	*5A06007*	*EPA 8270D*	*01/12/15 17:28*	*jfi*	
Terphenyl-d14	*1.9*	*1*	*1.76*	*108 %*	*60-120*	*5A06007*	*EPA 8270D*	*01/12/15 17:28*	*jfi*	

Semivolatile Organic Compounds by GCMS SIM

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1-Methylnaphthalene [90-12-0]^	0.020	U	mg/kg dry	1	0.020	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
2-Methylnaphthalene [91-57-6]^	0.019	U	mg/kg dry	1	0.019	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Acenaphthene [83-32-9]^	0.016	U	mg/kg dry	1	0.016	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Acenaphthylene [208-96-8]^	0.019	U	mg/kg dry	1	0.019	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Anthracene [120-12-7]^	0.015	U	mg/kg dry	1	0.015	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	J-02
Benzo(a)anthracene [56-55-3]^	0.015	U	mg/kg dry	1	0.015	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Benzo(a)pyrene [50-32-8]^	0.016	U	mg/kg dry	1	0.016	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.018	U	mg/kg dry	1	0.018	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.016	U	mg/kg dry	1	0.016	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.020	U	mg/kg dry	1	0.020	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Chrysene [218-01-9]^	0.013	U	mg/kg dry	1	0.013	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.017	U	mg/kg dry	1	0.017	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Fluoranthene [206-44-0]^	0.018	U	mg/kg dry	1	0.018	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Fluorene [86-73-7]^	0.018	U	mg/kg dry	1	0.018	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.016	U	mg/kg dry	1	0.016	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Naphthalene [91-20-3]^	0.019	U	mg/kg dry	1	0.019	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Phenanthrene [85-01-8]^	0.016	U	mg/kg dry	1	0.016	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	
Pyrene [129-00-0]^	0.017	U	mg/kg dry	1	0.017	0.037	5A06004	EPA 8270D	01/08/15 21:28	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
p-Terphenyl	*1.8*	*1*	*2.12*	*86 %*	*50-150*	*5A06004*	*EPA 8270D*	*01/08/15 21:28*	*jfi*	

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0014	U	mg/kg dry	2	0.0014	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
4,4'-DDE [72-55-9]^	0.0014	U	mg/kg dry	2	0.0014	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0014	U	mg/kg dry	2	0.0014	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Aldrin [309-00-2]^	0.0011	U	mg/kg dry	2	0.0011	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
alpha-BHC [319-84-6]^	0.0012	U	mg/kg dry	2	0.0012	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	

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ANALYTICAL RESULTS

Description: SB-117 1.5' | **Lab Sample ID:** A500011-02 | **Received:** 01/02/15 13:40

Matrix: Soil | **Sampled:** 01/02/15 10:35 | **Work Order:** A500011

Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 95.06

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
beta-BHC [319-85-7]^	0.0021	U	mg/kg dry	2	0.0021	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Chlordane (tech) [12789-03-6]^	0.018	U	mg/kg dry	2	0.018	0.069	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Chlordane-alpha [5103-71-9]^	0.00095	U	mg/kg dry	2	0.00095	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Chlordane-gamma [5566-34-7]^	0.00095	U	mg/kg dry	2	0.00095	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
delta-BHC [319-86-8]^	0.0011	U	mg/kg dry	2	0.0011	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Dieldrin [60-57-1]^	0.00095	U	mg/kg dry	2	0.00095	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Endosulfan I [959-98-8]^	0.00082	U	mg/kg dry	2	0.00082	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Endosulfan II [33213-65-9]^	0.0010	U	mg/kg dry	2	0.0010	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Endosulfan sulfate [1031-07-8]^	0.0010	U	mg/kg dry	2	0.0010	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Endrin [72-20-8]^	0.0016	U	mg/kg dry	2	0.0016	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Endrin aldehyde [7421-93-4]^	0.0017	U	mg/kg dry	2	0.0017	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Endrin ketone [53494-70-5]^	0.00099	U	mg/kg dry	2	0.00099	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
gamma-BHC [58-89-9]^	0.0013	U	mg/kg dry	2	0.0013	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Heptachlor [76-44-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Heptachlor epoxide [1024-57-3]^	0.0010	U	mg/kg dry	2	0.0010	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Isodrin [465-73-6]^	0.0013	U	mg/kg dry	2	0.0013	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	QL-02
Methoxychlor [72-43-5]^	0.0018	U	mg/kg dry	2	0.0018	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Mirex [2385-85-5]^	0.0023	U	mg/kg dry	2	0.0023	0.0036	5A06017	EPA 8081B	01/12/15 17:05	JJB	
Toxaphene [8001-35-2]^	0.036	U	mg/kg dry	2	0.036	0.069	5A06017	EPA 8081B	01/12/15 17:05	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.039*	*2*	*0.0351*	*111 %*	*20-137*	*5A06017*	*EPA 8081B*	*01/12/15 17:05*	*JJB*	
Decachlorobiphenyl	*0.044*	*2*	*0.0351*	*124 %*	*13-183*	*5A06017*	*EPA 8081B*	*01/12/15 17:05*	*JJB*	

Polychlorinated Biphenyls by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9]^	0.029	U	mg/kg dry	2	0.029	0.036	5A06018	EPA 8082A	01/12/15 17:05	JJB	
PCB-1221 [11104-28-2]^	0.029	U	mg/kg dry	2	0.029	0.036	5A06018	EPA 8082A	01/12/15 17:05	JJB	
PCB-1232 [11141-16-5]^	0.029	U	mg/kg dry	2	0.029	0.036	5A06018	EPA 8082A	01/12/15 17:05	JJB	
PCB-1248 [12672-29-6]^	0.013	U	mg/kg dry	2	0.013	0.036	5A06018	EPA 8082A	01/12/15 17:05	JJB	
PCB-1254 [11097-69-1]^	0.034	U	mg/kg dry	2	0.034	0.036	5A06018	EPA 8082A	01/12/15 17:05	JJB	
PCB-1260 [11096-82-5]^	0.023	U	mg/kg dry	2	0.023	0.036	5A06018	EPA 8082A	01/12/15 17:05	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.033*	*2*	*0.0351*	*94 %*	*20-137*	*5A06018*	*EPA 8082A*	*01/12/15 17:05*	*JJB*	
Decachlorobiphenyl	*0.040*	*2*	*0.0351*	*114 %*	*13-183*	*5A06018*	*EPA 8082A*	*01/12/15 17:05*	*JJB*	

FL Petroleum Range Organics

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
TPH (C8-C40)^	3.6	U	mg/kg dry	1	3.6	6.0	5A07001	FL-PRO	01/07/15 21:35	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
n-Nonatriacontane	*4.0*	*1*	*3.51*	*115 %*	*41-129*	*5A07001*	*FL-PRO*	*01/07/15 21:35*	*JJB*	
o-Terphenyl	*1.8*	*1*	*1.75*	*101 %*	*45-135*	*5A07001*	*FL-PRO*	*01/07/15 21:35*	*JJB*	

ANALYTICAL RESULTS

Description: SB-117 1.5'	**Lab Sample ID:** A500011-02	**Received:** 01/02/15 13:40
Matrix: Soil	**Sampled:** 01/02/15 10:35	**Work Order:** A500011
Project: I-4 Level II	**Sampled By:** Jerry W. Governale	**% Solids:** 95.06

Metals by EPA 6000/7000 Series Methods

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6]^	0.00410	U	mg/kg dry	1	0.00410	0.0105	5A05007	EPA 7471B	01/06/15 07:45	JAY	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.451	U	mg/kg dry	1	0.451	0.634	5A07002	EPA 6010C	01/08/15 12:26	ACV	
Barium [7440-39-3]^	**9.35**		mg/kg dry	1	0.0406	0.634	5A07002	EPA 6010C	01/08/15 12:26	ACV	
Cadmium [7440-43-9]^	0.0114	U	mg/kg dry	1	0.0114	0.0634	5A07002	EPA 6010C	01/08/15 12:26	ACV	
Chromium [7440-47-3]^	**0.671**		mg/kg dry	1	0.0393	0.634	5A07002	EPA 6010C	01/08/15 12:26	ACV	
Lead [7439-92-1]^	**0.759**		mg/kg dry	1	0.139	0.634	5A07002	EPA 6010C	01/08/15 12:26	ACV	
Selenium [7782-49-2]^	0.456	U	mg/kg dry	1	0.456	2.53	5A07002	EPA 6010C	01/08/15 12:26	ACV	
Silver [7440-22-4]^	0.0913	U	mg/kg dry	1	0.0913	0.634	5A07002	EPA 6010C	01/08/15 12:26	ACV	

ANALYTICAL RESULTS

Description: SB-122 4.5' | **Lab Sample ID:** A500011-03 | **Received:** 01/02/15 13:40

Matrix: Soil | **Sampled:** 01/02/15 10:15 | **Work Order:** A500011

Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 84.40

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6]^	0.0008	U	mg/kg dry	1	0.0008	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,1,1-Trichloroethane [71-55-6]^	0.0006	U	mg/kg dry	1	0.0006	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,1,2,2-Tetrachloroethane [79-34-5]^	0.0005	U	mg/kg dry	1	0.0005	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,1,2-Trichloroethane [79-00-5]^	0.0011	U	mg/kg dry	1	0.0011	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,1-Dichloroethane [75-34-3]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,1-Dichloroethene [75-35-4]^	0.0011	U	mg/kg dry	1	0.0011	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	QV-01
1,1-Dichloropropene [563-58-6]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2,3-Trichlorobenzene [87-61-6]^	0.0016	U	mg/kg dry	1	0.0016	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2,3-Trichloropropane [96-18-4]^	0.0005	U	mg/kg dry	1	0.0005	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2,4-Trichlorobenzene [120-82-1]^	0.0015	U	mg/kg dry	1	0.0015	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2,4-Trimethylbenzene [95-63-6]^	0.0012	U	mg/kg dry	1	0.0012	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2-Dibromo-3-chloropropane [96-12-8]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2-Dibromoethane [106-93-4]^	0.0005	U	mg/kg dry	1	0.0005	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2-Dichlorobenzene [95-50-1]^	0.0008	U	mg/kg dry	1	0.0008	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2-Dichloroethane [107-06-2]^	0.0006	U	mg/kg dry	1	0.0006	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,2-Dichloropropane [78-87-5]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,3,5-Trimethylbenzene [108-67-8]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,3-Dichlorobenzene [541-73-1]^	0.0008	U	mg/kg dry	1	0.0008	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
1,3-Dichloropropane [142-28-9]^	0.0007	U	mg/kg dry	1	0.0007	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	QV-01
1,4-Dichlorobenzene [106-46-7]^	0.0008	U	mg/kg dry	1	0.0008	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
2,2-Dichloropropane [594-20-7]^	0.0007	U	mg/kg dry	1	0.0007	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
2-Butanone [78-93-3]^	0.0032	U	mg/kg dry	1	0.0032	0.0089	5A08016	EPA 8260B	01/08/15 12:19	KKW	
2-Chloroethyl Vinyl Ether [110-75-8]^	0.0030	U	mg/kg dry	1	0.0030	0.0089	5A08016	EPA 8260B	01/08/15 12:19	KKW	
2-Chlorotoluene [95-49-8]^	0.0009	U	mg/kg dry	1	0.0009	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
2-Hexanone [591-78-6]^	0.0016	U	mg/kg dry	1	0.0016	0.0089	5A08016	EPA 8260B	01/08/15 12:19	KKW	QV-01, QL-02
4-Chlorotoluene [106-43-4]^	0.0011	U	mg/kg dry	1	0.0011	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
4-Isopropyltoluene [99-87-6]^	0.0013	U	mg/kg dry	1	0.0013	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
4-Methyl-2-pentanone [108-10-1]^	0.0025	U	mg/kg dry	1	0.0025	0.0089	5A08016	EPA 8260B	01/08/15 12:19	KKW	QL-02, QV-01
Acetone [67-64-1]^	**0.040**		mg/kg dry	1	0.0030	0.0089	5A08016	EPA 8260B	01/08/15 12:19	KKW	J-02, J-04, O-01
Benzene [71-43-2]^	0.0007	U	mg/kg dry	1	0.0007	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Bromobenzene [108-86-1]^	0.0007	U	mg/kg dry	1	0.0007	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Bromochloromethane [74-97-5]^	0.0006	U	mg/kg dry	1	0.0006	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Bromodichloromethane [75-27-4]^	0.0006	U	mg/kg dry	1	0.0006	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Bromoform [75-25-2]^	0.0005	U	mg/kg dry	1	0.0005	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Bromomethane [74-83-9]^	0.0016	U	mg/kg dry	1	0.0016	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	QV-01
Carbon disulfide [75-15-0]^	0.0037	U	mg/kg dry	1	0.0037	0.0089	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Carbon Tetrachloride [56-23-5]^	0.0011	U	mg/kg dry	1	0.0011	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Chlorobenzene [108-90-7]^	0.0009	U	mg/kg dry	1	0.0009	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Chloroethane [75-00-3]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	QL-02, QV-01
Chloroform [67-66-3]^	0.0008	U	mg/kg dry	1	0.0008	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Chloromethane [74-87-3]^	0.0012	U	mg/kg dry	1	0.0012	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	QV-01
cis-1,2-Dichloroethene [156-59-2]^	0.0009	U	mg/kg dry	1	0.0009	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
cis-1,3-Dichloropropene [10061-01-5]^	0.0005	U	mg/kg dry	1	0.0005	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Dibromochloromethane [124-48-1]^	0.0005	U	mg/kg dry	1	0.0005	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	

ANALYTICAL RESULTS

Description: SB-122 4.5' | **Lab Sample ID:** A500011-03 | **Received:** 01/02/15 13:40
Matrix: Soil | **Sampled:** 01/02/15 10:15 | **Work Order:** A500011
Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 84.40

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Dibromomethane [74-95-3]^	0.0007	U	mg/kg dry	1	0.0007	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Dichlorodifluoromethane [75-71-8]^	0.0011	U	mg/kg dry	1	0.0011	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Ethylbenzene [100-41-4]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Hexachlorobutadiene [87-68-3]^	0.0016	U	mg/kg dry	1	0.0016	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Isopropylbenzene [98-82-8]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
m,p-Xylenes [108-38-3/106-42-3]^	0.0018	U	mg/kg dry	1	0.0018	0.0035	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Methylene Chloride [75-09-2]^	**0.0048**	V	mg/kg dry	1	0.0012	0.0035	5A08016	EPA 8260B	01/08/15 12:19	KKW	J-01, O-01
Methyl-tert-Butyl Ether [1634-04-4]^	0.0005	U	mg/kg dry	1	0.0005	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Naphthalene [91-20-3]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
n-Butyl Benzene [104-51-8]^	0.0016	U	mg/kg dry	1	0.0016	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
n-Propyl Benzene [103-65-1]^	0.0011	U	mg/kg dry	1	0.0011	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
o-Xylene [95-47-6]^	0.0009	U	mg/kg dry	1	0.0009	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
sec-Butylbenzene [135-98-8]^	0.0012	U	mg/kg dry	1	0.0012	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Styrene [100-42-5]^	0.0008	U	mg/kg dry	1	0.0008	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
tert-Butylbenzene [98-06-6]^	0.0011	U	mg/kg dry	1	0.0011	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Tetrachloroethene [127-18-4]^	0.0009	U	mg/kg dry	1	0.0009	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Toluene [108-88-3]^	0.0008	U	mg/kg dry	1	0.0008	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
trans-1,2-Dichloroethene [156-60-5]^	0.0012	U	mg/kg dry	1	0.0012	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
trans-1,3-Dichloropropene [10061-02-6]^	0.0005	U	mg/kg dry	1	0.0005	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Trichloroethene [79-01-6]^	0.0009	U	mg/kg dry	1	0.0009	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Trichlorofluoromethane [75-69-4]^	0.0010	U	mg/kg dry	1	0.0010	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Vinyl chloride [75-01-4]^	0.0008	U	mg/kg dry	1	0.0008	0.0018	5A08016	EPA 8260B	01/08/15 12:19	KKW	
Xylenes (Total) [1330-20-7]^	0.0018	U	mg/kg dry	1	0.0018	0.0035	5A08016	EPA 8260B	01/08/15 12:19	KKW	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*60*	*1*	*50.0*	*121 %*	*71-126*	*5A08016*	*EPA 8260B*	*01/08/15 12:19*	*KKW*	
Dibromofluoromethane	*46*	*1*	*50.0*	*92 %*	*72-133*	*5A08016*	*EPA 8260B*	*01/08/15 12:19*	*KKW*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*80-123*	*5A08016*	*EPA 8260B*	*01/08/15 12:19*	*KKW*	

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,2,4-Trichlorobenzene [120-82-1]^	0.13	U	mg/kg dry	1	0.13	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
1,2-Dichlorobenzene [95-50-1]^	0.14	U	mg/kg dry	1	0.14	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
1,3-Dichlorobenzene [541-73-1]^	0.14	U	mg/kg dry	1	0.14	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
1,4-Dichlorobenzene [106-46-7]^	0.12	U	mg/kg dry	1	0.12	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
1-Methylnaphthalene [90-12-0]^	0.11	U	mg/kg dry	1	0.11	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2,4,5-Trichlorophenol [95-95-4]^	0.079	U	mg/kg dry	1	0.079	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2,4,6-Trichlorophenol [88-06-2]^	0.18	U	mg/kg dry	1	0.18	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2,4-Dichlorophenol [120-83-2]^	0.30	U	mg/kg dry	1	0.30	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2,4-Dimethylphenol [105-67-9]^	0.27	U	mg/kg dry	1	0.27	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2,4-Dinitrophenol [51-28-5]^	0.11	U	mg/kg dry	1	0.11	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2,4-Dinitrotoluene [121-14-2]^	0.19	U	mg/kg dry	1	0.19	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2,6-Dinitrotoluene [606-20-2]^	0.21	U	mg/kg dry	1	0.21	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2-Chloronaphthalene [91-58-7]^	0.12	U	mg/kg dry	1	0.12	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2-Chlorophenol [95-57-8]^	0.27	U	mg/kg dry	1	0.27	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2-Methyl-4,6-dinitrophenol [534-52-1]^	0.33	U	mg/kg dry	1	0.33	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2-Methylnaphthalene [91-57-6]^	0.14	U	mg/kg dry	1	0.14	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	

ANALYTICAL RESULTS

Description: SB-122 4.5' | **Lab Sample ID:** A500011-03 | **Received:** 01/02/15 13:40

Matrix: Soil | **Sampled:** 01/02/15 10:15 | **Work Order:** A500011

Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 84.40

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2-Methylphenol [95-48-7]^	0.13	U	mg/kg dry	1	0.13	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2-Nitroaniline [88-74-4]^	0.10	U	mg/kg dry	1	0.10	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
2-Nitrophenol [88-75-5]^	0.31	U	mg/kg dry	1	0.31	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
3 & 4-Methylphenol [108-39-4/106-44-5]^	0.30	U	mg/kg dry	1	0.30	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
3,3'-Dichlorobenzidine [91-94-1]^	0.25	U	mg/kg dry	1	0.25	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	QL-02
3-Nitroaniline [99-09-2]^	0.095	U	mg/kg dry	1	0.095	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
4-Bromophenyl-phenylether [101-55-3]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
4-Chloro-3-methylphenol [59-50-7]^	0.33	U	mg/kg dry	1	0.33	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
4-Chloroaniline [106-47-8]^	0.077	U	mg/kg dry	1	0.077	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
4-Chlorophenyl-phenylether [7005-72-3]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
4-Nitroaniline [100-01-6]^	0.31	U	mg/kg dry	1	0.31	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
4-Nitrophenol [100-02-7]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Acenaphthene [83-32-9]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Acenaphthylene [208-96-8]^	0.14	U	mg/kg dry	1	0.14	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Anthracene [120-12-7]^	0.18	U	mg/kg dry	1	0.18	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Benzidine [92-87-5]^	0.10	U	mg/kg dry	1	0.10	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	J-02
Benzo(a)anthracene [56-55-3]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Benzo(a)pyrene [50-32-8]^	0.092	U	mg/kg dry	1	0.092	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.13	U	mg/kg dry	1	0.13	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.19	U	mg/kg dry	1	0.19	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.13	U	mg/kg dry	1	0.13	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Benzoic acid [65-85-0]^	0.57	U	mg/kg dry	1	0.57	2.0	5A06007	EPA 8270D	01/12/15 17:56	jfi	J-05
Benzyl alcohol [100-51-6]^	0.19	U	mg/kg dry	1	0.19	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Bis(2-chloroethoxy)methane [111-91-1]^	0.18	U	mg/kg dry	1	0.18	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	QV-01
Bis(2-chloroethyl)ether [111-44-4]^	0.17	U	mg/kg dry	1	0.17	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Bis(2-chloroisopropyl)ether [108-60-1]^	0.12	U	mg/kg dry	1	0.12	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Bis(2-ethylhexyl)phthalate [117-81-7]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Butylbenzylphthalate [85-68-7]^	0.17	U	mg/kg dry	1	0.17	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Chrysene [218-01-9]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.17	U	mg/kg dry	1	0.17	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Dibenzofuran [132-64-9]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Diethylphthalate [84-66-2]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Dimethylphthalate [131-11-3]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Di-n-butylphthalate [84-74-2]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Di-n-octylphthalate [117-84-0]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Fluoranthene [206-44-0]^	0.13	U	mg/kg dry	1	0.13	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Fluorene [86-73-7]^	0.17	U	mg/kg dry	1	0.17	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Hexachlorobenzene [118-74-1]^	0.14	U	mg/kg dry	1	0.14	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Hexachlorobutadiene [87-68-3]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Hexachlorocyclopentadiene [77-47-4]^	0.18	U	mg/kg dry	1	0.18	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Hexachloroethane [67-72-1]^	0.12	U	mg/kg dry	1	0.12	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.17	U	mg/kg dry	1	0.17	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Isophorone [78-59-1]^	0.20	U	mg/kg dry	1	0.20	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Naphthalene [91-20-3]^	0.14	U	mg/kg dry	1	0.14	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Nitrobenzene [98-95-3]^	0.18	U	mg/kg dry	1	0.18	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
N-Nitrosodimethylamine [62-75-9]^	0.14	U	mg/kg dry	1	0.14	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
N-Nitroso-di-n-propylamine [621-64-7]^	0.18	U	mg/kg dry	1	0.18	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	

ANALYTICAL RESULTS

Description: SB-122 4.5' | **Lab Sample ID:** A500011-03 | **Received:** 01/02/15 13:40
Matrix: Soil | **Sampled:** 01/02/15 10:15 | **Work Order:** A500011
Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 84.40

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4]^	0.27	U	mg/kg dry	1	0.27	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Pentachlorophenol [87-86-5]^	0.25	U	mg/kg dry	1	0.25	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Phenanthrene [85-01-8]^	0.15	U	mg/kg dry	1	0.15	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Phenol [108-95-2]^	0.12	U	mg/kg dry	1	0.12	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Pyrene [129-00-0]^	0.13	U	mg/kg dry	1	0.13	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	
Pyridine [110-86-1]^	0.18	U	mg/kg dry	1	0.18	0.39	5A06007	EPA 8270D	01/12/15 17:56	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*1.4*	*1*	*1.97*	*72 %*	*23-137*	*5A06007*	*EPA 8270D*	*01/12/15 17:56*	*jfi*	
2-Fluorobiphenyl	*1.1*	*1*	*1.97*	*58 %*	*29-119*	*5A06007*	*EPA 8270D*	*01/12/15 17:56*	*jfi*	
2-Fluorophenol	*1.7*	*1*	*1.97*	*88 %*	*20-124*	*5A06007*	*EPA 8270D*	*01/12/15 17:56*	*jfi*	
Nitrobenzene-d5	*1.5*	*1*	*1.97*	*77 %*	*17-126*	*5A06007*	*EPA 8270D*	*01/12/15 17:56*	*jfi*	
Phenol-d5	*1.9*	*1*	*1.97*	*94 %*	*15-131*	*5A06007*	*EPA 8270D*	*01/12/15 17:56*	*jfi*	
Terphenyl-d14	*1.8*	*1*	*1.97*	*89 %*	*60-120*	*5A06007*	*EPA 8270D*	*01/12/15 17:56*	*jfi*	

Semivolatile Organic Compounds by GCMS SIM

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1-Methylnaphthalene [90-12-0]^	0.023	U	mg/kg dry	1	0.023	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
2-Methylnaphthalene [91-57-6]^	0.021	U	mg/kg dry	1	0.021	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Acenaphthene [83-32-9]^	0.018	U	mg/kg dry	1	0.018	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Acenaphthylene [208-96-8]^	0.021	U	mg/kg dry	1	0.021	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Anthracene [120-12-7]^	0.017	U	mg/kg dry	1	0.017	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Benzo(a)anthracene [56-55-3]^	0.017	U	mg/kg dry	1	0.017	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Benzo(a)pyrene [50-32-8]^	0.018	U	mg/kg dry	1	0.018	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.020	U	mg/kg dry	1	0.020	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.018	U	mg/kg dry	1	0.018	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.023	U	mg/kg dry	1	0.023	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Chrysene [218-01-9]^	**0.017**	I	mg/kg dry	1	0.014	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.019	U	mg/kg dry	1	0.019	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Fluoranthene [206-44-0]^	0.020	U	mg/kg dry	1	0.020	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Fluorene [86-73-7]^	0.020	U	mg/kg dry	1	0.020	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.018	U	mg/kg dry	1	0.018	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Naphthalene [91-20-3]^	0.021	U	mg/kg dry	1	0.021	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Phenanthrene [85-01-8]^	0.018	U	mg/kg dry	1	0.018	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	
Pyrene [129-00-0]^	0.019	U	mg/kg dry	1	0.019	0.041	5A06004	EPA 8270D	01/15/15 14:41	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
p-Terphenyl	*2.1*	*1*	*2.39*	*86 %*	*50-150*	*5A06004*	*EPA 8270D*	*01/15/15 14:41*	*jfi*	

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0016	U	mg/kg dry	2	0.0016	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
4,4'-DDE [72-55-9]^	0.0015	U	mg/kg dry	2	0.0015	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0016	U	mg/kg dry	2	0.0016	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Aldrin [309-00-2]^	0.0012	U	mg/kg dry	2	0.0012	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
alpha-BHC [319-84-6]^	0.0013	U	mg/kg dry	2	0.0013	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	

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ANALYTICAL RESULTS

Description: SB-122 4.5' | **Lab Sample ID:** A500011-03 | **Received:** 01/02/15 13:40

Matrix: Soil | **Sampled:** 01/02/15 10:15 | **Work Order:** A500011

Project: I-4 Level II | **Sampled By:** Jerry W. Governale | **% Solids:** 84.40

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
beta-BHC [319-85-7]^	0.0024	U	mg/kg dry	2	0.0024	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Chlordane (tech) [12789-03-6]^	0.020	U	mg/kg dry	2	0.020	0.078	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Chlordane-alpha [5103-71-9]^	0.0011	U	mg/kg dry	2	0.0011	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Chlordane-gamma [5566-34-7]^	0.0011	U	mg/kg dry	2	0.0011	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
delta-BHC [319-86-8]^	0.0012	U	mg/kg dry	2	0.0012	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Dieldrin [60-57-1]^	0.0011	U	mg/kg dry	2	0.0011	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Endosulfan I [959-98-8]^	0.00092	U	mg/kg dry	2	0.00092	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Endosulfan II [33213-65-9]^	0.0011	U	mg/kg dry	2	0.0011	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Endosulfan sulfate [1031-07-8]^	0.0012	U	mg/kg dry	2	0.0012	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Endrin [72-20-8]^	0.0018	U	mg/kg dry	2	0.0018	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Endrin aldehyde [7421-93-4]^	0.0020	U	mg/kg dry	2	0.0020	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Endrin ketone [53494-70-5]^	0.0011	U	mg/kg dry	2	0.0011	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
gamma-BHC [58-89-9]^	0.0014	U	mg/kg dry	2	0.0014	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Heptachlor [76-44-8]^	0.0015	U	mg/kg dry	2	0.0015	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Heptachlor epoxide [1024-57-3]^	0.0011	U	mg/kg dry	2	0.0011	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Isodrin [465-73-6]^	0.0015	U	mg/kg dry	2	0.0015	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	QL-02
Methoxychlor [72-43-5]^	0.0020	U	mg/kg dry	2	0.0020	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Mirex [2385-85-5]^	0.0026	U	mg/kg dry	2	0.0026	0.0040	5A06017	EPA 8081B	01/12/15 17:16	JJB	
Toxaphene [8001-35-2]^	0.040	U	mg/kg dry	2	0.040	0.078	5A06017	EPA 8081B	01/12/15 17:16	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.028*	*2*	*0.0395*	*71 %*	*20-137*	*5A06017*	*EPA 8081B*	*01/12/15 17:16*	*JJB*	
Decachlorobiphenyl	*0.044*	*2*	*0.0395*	*110 %*	*13-183*	*5A06017*	*EPA 8081B*	*01/12/15 17:16*	*JJB*	

Polychlorinated Biphenyls by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9]^	0.033	U	mg/kg dry	2	0.033	0.040	5A06018	EPA 8082A	01/12/15 17:16	JJB	
PCB-1221 [11104-28-2]^	0.033	U	mg/kg dry	2	0.033	0.040	5A06018	EPA 8082A	01/12/15 17:16	JJB	
PCB-1232 [11141-16-5]^	0.033	U	mg/kg dry	2	0.033	0.040	5A06018	EPA 8082A	01/12/15 17:16	JJB	
PCB-1248 [12672-29-6]^	0.015	U	mg/kg dry	2	0.015	0.040	5A06018	EPA 8082A	01/12/15 17:16	JJB	
PCB-1254 [11097-69-1]^	0.038	U	mg/kg dry	2	0.038	0.040	5A06018	EPA 8082A	01/12/15 17:16	JJB	
PCB-1260 [11096-82-5]^	0.026	U	mg/kg dry	2	0.026	0.040	5A06018	EPA 8082A	01/12/15 17:16	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.022*	*2*	*0.0395*	*56 %*	*20-137*	*5A06018*	*EPA 8082A*	*01/12/15 17:16*	*JJB*	
Decachlorobiphenyl	*0.034*	*2*	*0.0395*	*86 %*	*13-183*	*5A06018*	*EPA 8082A*	*01/12/15 17:16*	*JJB*	

FL Petroleum Range Organics

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
TPH (C8-C40)^	4.0	U	mg/kg dry	1	4.0	6.8	5A07001	FL-PRO	01/07/15 22:39	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
n-Nonatriacontane	*4.0*	*1*	*3.92*	*102 %*	*41-129*	*5A07001*	*FL-PRO*	*01/07/15 22:39*	*JJB*	
o-Terphenyl	*2.0*	*1*	*1.96*	*104 %*	*45-135*	*5A07001*	*FL-PRO*	*01/07/15 22:39*	*JJB*	

ANALYTICAL RESULTS

Description: SB-122 4.5'	**Lab Sample ID:** A500011-03	**Received:** 01/02/15 13:40
Matrix: Soil	**Sampled:** 01/02/15 10:15	**Work Order:** A500011
Project: I-4 Level II	**Sampled By:** Jerry W. Governale	**% Solids:** 84.40

Metals by EPA 6000/7000 Series Methods

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6]^	0.00462	U	mg/kg dry	1	0.00462	0.0118	5A05007	EPA 7471B	01/06/15 07:48	JAY	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	**0.643**	I	mg/kg dry	1	0.514	0.722	5A07002	EPA 6010C	01/08/15 12:36	ACV	
Barium [7440-39-3]^	**58.2**		mg/kg dry	1	0.0462	0.722	5A07002	EPA 6010C	01/08/15 12:36	ACV	
Cadmium [7440-43-9]^	0.0130	U	mg/kg dry	1	0.0130	0.0722	5A07002	EPA 6010C	01/08/15 12:36	ACV	
Chromium [7440-47-3]^	**6.04**		mg/kg dry	1	0.0448	0.722	5A07002	EPA 6010C	01/08/15 12:36	ACV	
Lead [7439-92-1]^	**6.75**		mg/kg dry	1	0.159	0.722	5A07002	EPA 6010C	01/08/15 12:36	ACV	
Selenium [7782-49-2]^	**1.69**	I	mg/kg dry	1	0.520	2.89	5A07002	EPA 6010C	01/08/15 12:36	ACV	
Silver [7440-22-4]^	0.104	U	mg/kg dry	1	0.104	0.722	5A07002	EPA 6010C	01/08/15 12:36	ACV	

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08016 - EPA 5030B_MS

Blank (5A08016-BLK1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 11:24

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.0004	U	0.0010	mg/kg wet							
1,1,1-Trichloroethane	0.0004	U	0.0010	mg/kg wet							
1,1,2,2-Tetrachloroethane	0.0003	U	0.0010	mg/kg wet							
1,1,2-Trichloroethane	0.0006	U	0.0010	mg/kg wet							
1,1-Dichloroethane	0.0006	U	0.0010	mg/kg wet							
1,1-Dichloroethene	0.0006	U	0.0010	mg/kg wet							
1,1-Dichloropropene	0.0005	U	0.0010	mg/kg wet							
1,2,3-Trichlorobenzene	0.0009	U	0.0010	mg/kg wet							
1,2,3-Trichloropropane	0.0003	U	0.0010	mg/kg wet							
1,2,4-Trichlorobenzene	0.0008	U	0.0010	mg/kg wet							
1,2,4-Trimethylbenzene	0.0007	U	0.0010	mg/kg wet							
1,2-Dibromo-3-chloropropane	0.0006	U	0.0010	mg/kg wet							
1,2-Dibromoethane	0.0003	U	0.0010	mg/kg wet							
1,2-Dichlorobenzene	0.0004	U	0.0010	mg/kg wet							
1,2-Dichloroethane	0.0003	U	0.0010	mg/kg wet							
1,2-Dichloropropane	0.0006	U	0.0010	mg/kg wet							
1,3,5-Trimethylbenzene	0.0006	U	0.0010	mg/kg wet							
1,3-Dichlorobenzene	0.0005	U	0.0010	mg/kg wet							
1,3-Dichloropropane	0.0004	U	0.0010	mg/kg wet							
1,4-Dichlorobenzene	0.0004	U	0.0010	mg/kg wet							
2,2-Dichloropropane	0.0004	U	0.0010	mg/kg wet							
2-Butanone	0.0018	U	0.0050	mg/kg wet							
2-Chloroethyl Vinyl Ether	0.0017	U	0.0050	mg/kg wet							
2-Chlorotoluene	0.0005	U	0.0010	mg/kg wet							
2-Hexanone	0.0009	U	0.0050	mg/kg wet							
4-Chlorotoluene	0.0006	U	0.0010	mg/kg wet							
4-Isopropyltoluene	0.0008	U	0.0010	mg/kg wet							
4-Methyl-2-pentanone	0.0014	U	0.0050	mg/kg wet							
Acetone	0.0017	U	0.0050	mg/kg wet							

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08016 - EPA 5030B_MS - Continued

Blank (5A08016-BLK1) Continued Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 11:24

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	0.0004	U	0.0010	mg/kg wet							
Bromobenzene	0.0004	U	0.0010	mg/kg wet							
Bromochloromethane	0.0004	U	0.0010	mg/kg wet							
Bromodichloromethane	0.0004	U	0.0010	mg/kg wet							
Bromoform	0.0003	U	0.0010	mg/kg wet							
Bromomethane	0.0009	U	0.0010	mg/kg wet							
Carbon disulfide	0.0021	U	0.0050	mg/kg wet							
Carbon Tetrachloride	0.0006	U	0.0010	mg/kg wet							
Chlorobenzene	0.0005	U	0.0010	mg/kg wet							
Chloroethane	0.0005	U	0.0010	mg/kg wet							
Chloroform	0.0004	U	0.0010	mg/kg wet							
Chloromethane	0.0006	U	0.0010	mg/kg wet							
cis-1,2-Dichloroethene	0.0005	U	0.0010	mg/kg wet							
cis-1,3-Dichloropropene	0.0003	U	0.0010	mg/kg wet							
Dibromochloromethane	0.0003	U	0.0010	mg/kg wet							
Dibromomethane	0.0004	U	0.0010	mg/kg wet							
Dichlorodifluoromethane	0.0006	U	0.0010	mg/kg wet							
Ethylbenzene	0.0006	U	0.0010	mg/kg wet							
Hexachlorobutadiene	0.0009	U	0.0010	mg/kg wet							
Isopropylbenzene	0.0005	U	0.0010	mg/kg wet							
m,p-Xylenes	0.0010	U	0.0020	mg/kg wet							
Methylene Chloride	**0.0034**		0.0020	mg/kg wet							J-01, O-01
Methyl-tert-Butyl Ether	0.0003	U	0.0010	mg/kg wet							
Naphthalene	0.0006	U	0.0010	mg/kg wet							
n-Butyl Benzene	0.0009	U	0.0010	mg/kg wet							
n-Propyl Benzene	0.0006	U	0.0010	mg/kg wet							
o-Xylene	0.0005	U	0.0010	mg/kg wet							
sec-Butylbenzene	0.0006	U	0.0010	mg/kg wet							
Styrene	0.0004	U	0.0010	mg/kg wet							

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08016 - EPA 5030B_MS - Continued

Blank (5A08016-BLK1) Continued Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 11:24

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
tert-Butylbenzene	0.0006	U	0.0010	mg/kg wet							
Tetrachloroethene	0.0005	U	0.0010	mg/kg wet							
Toluene	0.0005	U	0.0010	mg/kg wet							
trans-1,2-Dichloroethene	0.0007	U	0.0010	mg/kg wet							
trans-1,3-Dichloropropene	0.0003	U	0.0010	mg/kg wet							
Trichloroethene	0.0005	U	0.0010	mg/kg wet							
Trichlorofluoromethane	0.0005	U	0.0010	mg/kg wet							
Vinyl chloride	0.0004	U	0.0010	mg/kg wet							
Xylenes (Total)	0.0010	U	0.0020	mg/kg wet							
4-Bromofluorobenzene	*51*			*ug/L*	*50.0*		*103*	*71-126*			
Dibromofluoromethane	*43*			*ug/L*	*50.0*		*87*	*72-133*			
Toluene-d8	*45*			*ug/L*	*50.0*		*89*	*80-123*			

LCS (5A08016-BS1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 10:01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.023		0.0010	mg/kg wet	0.0200		115	61-124			
Benzene	0.018		0.0010	mg/kg wet	0.0200		88	59-133			
Chlorobenzene	0.018		0.0010	mg/kg wet	0.0200		90	69-121			
Toluene	0.019		0.0010	mg/kg wet	0.0200		95	66-119			
Trichloroethene	0.019		0.0010	mg/kg wet	0.0200		94	71-122			
4-Bromofluorobenzene	*48*			*ug/L*	*50.0*		*96*	*71-126*			
Dibromofluoromethane	*48*			*ug/L*	*50.0*		*96*	*72-133*			
Toluene-d8	*46*			*ug/L*	*50.0*		*92*	*80-123*			

LCS Dup (5A08016-BSD1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 10:28

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.023		0.0010	mg/kg wet	0.0200		113	61-124	2	23	
Benzene	0.016		0.0010	mg/kg wet	0.0200		78	59-133	11	19	
Chlorobenzene	0.018		0.0010	mg/kg wet	0.0200		92	69-121	1	18	
Toluene	0.019		0.0010	mg/kg wet	0.0200		93	66-119	2	21	
Trichloroethene	0.016		0.0010	mg/kg wet	0.0200		82	71-122	13	26	
4-Bromofluorobenzene	*44*			*ug/L*	*50.0*		*88*	*71-126*			
Dibromofluoromethane	*42*			*ug/L*	*50.0*		*84*	*72-133*			

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08016 - EPA 5030B_MS - Continued

LCS Dup (5A08016-BSD1) Continued Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 10:28

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Toluene-d8	*42*			*ug/L*	*50.0*		*83*	*80-123*			

Matrix Spike (5A08016-MS1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 14:38

Source: A500011-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.021		0.0011	mg/kg dry	0.0210	0.0007 U	98	61-124			
Benzene	0.016		0.0011	mg/kg dry	0.0210	0.0004 U	74	59-133			
Chlorobenzene	0.018		0.0011	mg/kg dry	0.0210	0.0005 U	86	69-121			
Toluene	0.020		0.0011	mg/kg dry	0.0210	0.0005 U	97	66-119			
Trichloroethene	0.018		0.0011	mg/kg dry	0.0210	0.0005 U	88	71-122			
4-Bromofluorobenzene	*41*			*ug/L*	*50.0*		*83*	*71-126*			
Dibromofluoromethane	*36*			*ug/L*	*50.0*		*73*	*72-133*			
Toluene-d8	*38*			*ug/L*	*50.0*		*77*	*80-123*			*QS-03*

Batch 5A08031 - EPA 5030B_MS

Blank (5A08031-BLK1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 16:02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.61	U	1.0	ug/L							
1,1,1-Trichloroethane	0.80	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.54	U	1.0	ug/L							
1,1,2-Trichloroethane	0.76	U	1.0	ug/L							
1,1-Dichloroethane	0.62	U	1.0	ug/L							
1,1-Dichloroethene	0.94	U	1.0	ug/L							
1,1-Dichloropropene	0.74	U	1.0	ug/L							
1,2,3-Trichlorobenzene	0.86	U	1.0	ug/L							
1,2,3-Trichloropropane	0.64	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.70	U	1.0	ug/L							
1,2,4-Trimethylbenzene	0.69	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.96	U	1.0	ug/L							
1,2-Dibromoethane	0.78	U	1.0	ug/L							
1,2-Dichlorobenzene	0.73	U	1.0	ug/L							
1,2-Dichloroethane	0.63	U	1.0	ug/L							
1,2-Dichloropropane	0.80	U	1.0	ug/L							
1,3,5-Trimethylbenzene	0.58	U	1.0	ug/L							
1,3-Dichlorobenzene	0.77	U	1.0	ug/L							
1,3-Dichloropropane	0.60	U	1.0	ug/L							
1,4-Dichlorobenzene	0.76	U	1.0	ug/L							
2,2-Dichloropropane	0.66	U	1.0	ug/L							
2-Butanone	4.5	U	5.0	ug/L							
2-Chloroethyl Vinyl Ether	1.9	U	5.0	ug/L							
2-Chlorotoluene	0.68	U	1.0	ug/L							
2-Hexanone	1.4	U	5.0	ug/L							
4-Chlorotoluene	0.65	U	1.0	ug/L							
4-Isopropyltoluene	0.80	U	1.0	ug/L							
4-Methyl-2-pentanone	0.79	U	5.0	ug/L							
Acetone	5.0	U	10	ug/L							
Benzene	0.71	U	1.0	ug/L							

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08031 - EPA 5030B_MS - Continued

Blank (5A08031-BLK1) Continued Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 16:02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromobenzene	0.77	U	1.0	ug/L							
Bromochloromethane	0.94	U	1.0	ug/L							
Bromodichloromethane	0.52	U	1.0	ug/L							
Bromoform	0.75	U	1.0	ug/L							
Bromomethane	0.95	U	1.0	ug/L							
Carbon disulfide	2.6	U	5.0	ug/L							
Carbon tetrachloride	0.94	U	1.0	ug/L							
Chlorobenzene	0.72	U	1.0	ug/L							
Chloroethane	0.98	U	1.0	ug/L							
Chloroform	0.80	U	1.0	ug/L							
Chloromethane	0.82	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.53	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.59	U	1.0	ug/L							
Dibromochloromethane	0.44	U	1.0	ug/L							
Dibromomethane	0.84	U	1.0	ug/L							
Dichlorodifluoromethane	0.74	U	1.0	ug/L							
Ethylbenzene	0.69	U	1.0	ug/L							
Hexachlorobutadiene	0.70	U	1.0	ug/L							
Isopropylbenzene	0.67	U	1.0	ug/L							
m,p-Xylenes	1.3	U	2.0	ug/L							
Methylene chloride	2.0	U	5.0	ug/L							
Methyl-tert-Butyl Ether	0.60	U	1.0	ug/L							
Naphthalene	0.82	U	1.0	ug/L							
n-Butyl Benzene	0.70	U	1.0	ug/L							
n-Propyl Benzene	0.70	U	1.0	ug/L							
o-Xylene	0.53	U	1.0	ug/L							
sec-Butylbenzene	0.74	U	1.0	ug/L							
Styrene	0.61	U	1.0	ug/L							
tert-Butylbenzene	0.64	U	1.0	ug/L							
Tetrachloroethene	0.76	U	1.0	ug/L							
Toluene	0.72	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.73	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.73	U	1.0	ug/L							
Trichloroethene	0.89	U	1.0	ug/L							
Trichlorofluoromethane	0.94	U	1.0	ug/L							
Vinyl chloride	0.71	U	1.0	ug/L							
Xylenes (Total)	1.3	U	2.0	ug/L							
4-Bromofluorobenzene	*60*			*ug/L*	*50.0*		*120*	*41-142*			
Dibromofluoromethane	*49*			*ug/L*	*50.0*		*98*	*53-146*			
Toluene-d8	*49*			*ug/L*	*50.0*		*98*	*41-146*			

LCS (5A08031-BS1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 15:06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0		116	47-139			
Benzene	18		1.0	ug/L	20.0		88	56-136			
Chlorobenzene	21		1.0	ug/L	20.0		104	51-139			
Toluene	22		1.0	ug/L	20.0		108	64-131			
Trichloroethene	18		1.0	ug/L	20.0		91	62-135			

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08031 - EPA 5030B_MS - Continued

LCS (5A08031-BS1) Continued Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 15:06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4-Bromofluorobenzene	*50*			*ug/L*	*50.0*		*99*	*41-142*			
Dibromofluoromethane	*45*			*ug/L*	*50.0*		*91*	*53-146*			
Toluene-d8	*44*			*ug/L*	*50.0*		*88*	*41-146*			

Matrix Spike (5A08031-MS1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 17:25

Source: A500002-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	12		1.0	ug/L	20.0	0.94 U	60	47-139			
Benzene	11		1.0	ug/L	20.0	0.71 U	53	56-136			QM-07
Chlorobenzene	14		1.0	ug/L	20.0	0.72 U	70	51-139			
Toluene	12		1.0	ug/L	20.0	0.72 U	60	64-131			QM-07
Trichloroethene	11		1.0	ug/L	20.0	0.89 U	54	62-135			QM-07
4-Bromofluorobenzene	*51*			*ug/L*	*50.0*		*102*	*41-142*			
Dibromofluoromethane	*45*			*ug/L*	*50.0*		*91*	*53-146*			
Toluene-d8	*46*			*ug/L*	*50.0*		*91*	*41-146*			

Matrix Spike Dup (5A08031-MSD1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 17:52

Source: A500002-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	14		1.0	ug/L	20.0	0.94 U	70	47-139	14	16	
Benzene	12		1.0	ug/L	20.0	0.71 U	58	56-136	9	14	
Chlorobenzene	14		1.0	ug/L	20.0	0.72 U	71	51-139	1	13	
Toluene	14		1.0	ug/L	20.0	0.72 U	69	64-131	14	16	
Trichloroethene	13		1.0	ug/L	20.0	0.89 U	66	62-135	20	20	
4-Bromofluorobenzene	*56*			*ug/L*	*50.0*		*113*	*41-142*			
Dibromofluoromethane	*50*			*ug/L*	*50.0*		*100*	*53-146*			
Toluene-d8	*50*			*ug/L*	*50.0*		*99*	*41-146*			

Tentatively Identified Compounds by Volatile GCMS - Quality Control

Batch 5A08031 - EPA 5030B_MS

Blank (5A08031-BLK1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 16:02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Tentatively Identified Compounds	**0.0**			ug/L							

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS

Blank (5A06007-BLK1) Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 15:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	0.11	U	0.33	mg/kg wet							
1,2-Dichlorobenzene	0.12	U	0.33	mg/kg wet							
1,3-Dichlorobenzene	0.12	U	0.33	mg/kg wet							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

Blank (5A06007-BLK1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 15:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,4-Dichlorobenzene	0.10	U	0.33	mg/kg wet							
1-Methylnaphthalene	0.096	U	0.33	mg/kg wet							
2,4,5-Trichlorophenol	0.067	U	0.33	mg/kg wet							
2,4,6-Trichlorophenol	0.15	U	0.33	mg/kg wet							
2,4-Dichlorophenol	0.25	U	0.33	mg/kg wet							
2,4-Dimethylphenol	0.23	U	0.33	mg/kg wet							
2,4-Dinitrophenol	0.089	U	0.33	mg/kg wet							
2,4-Dinitrotoluene	0.16	U	0.33	mg/kg wet							
2,6-Dinitrotoluene	0.18	U	0.33	mg/kg wet							
2-Chloronaphthalene	0.098	U	0.33	mg/kg wet							
2-Chlorophenol	0.23	U	0.33	mg/kg wet							
2-Methyl-4,6-dinitrophenol	0.28	U	0.33	mg/kg wet							
2-Methylnaphthalene	0.12	U	0.33	mg/kg wet							
2-Methylphenol	0.11	U	0.33	mg/kg wet							
2-Nitroaniline	0.085	U	0.33	mg/kg wet							
2-Nitrophenol	0.26	U	0.33	mg/kg wet							
3 & 4-Methylphenol	0.25	U	0.33	mg/kg wet							
3,3'-Dichlorobenzidine	0.21	U	0.33	mg/kg wet							
3-Nitroaniline	0.080	U	0.33	mg/kg wet							
4-Bromophenyl-phenylether	0.13	U	0.33	mg/kg wet							
4-Chloro-3-methylphenol	0.28	U	0.33	mg/kg wet							
4-Chloroaniline	0.065	U	0.33	mg/kg wet							
4-Chlorophenyl-phenylether	0.13	U	0.33	mg/kg wet							
4-Nitroaniline	0.26	U	0.33	mg/kg wet							
4-Nitrophenol	0.13	U	0.33	mg/kg wet							
Acenaphthene	0.13	U	0.33	mg/kg wet							
Acenaphthylene	0.12	U	0.33	mg/kg wet							
Anthracene	0.15	U	0.33	mg/kg wet							
Benzidine	0.086	U	0.33	mg/kg wet							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

Blank (5A06007-BLK1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 15:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzo(a)anthracene	0.13	U	0.33	mg/kg wet							
Benzo(a)pyrene	0.078	U	0.33	mg/kg wet							
Benzo(b)fluoranthene	0.11	U	0.33	mg/kg wet							
Benzo(g,h,i)perylene	0.16	U	0.33	mg/kg wet							
Benzo(k)fluoranthene	0.11	U	0.33	mg/kg wet							
Benzoic acid	0.48	U	1.7	mg/kg wet							
Benzyl alcohol	0.16	U	0.33	mg/kg wet							
Bis(2-chloroethoxy)methane	0.15	U	0.33	mg/kg wet							
Bis(2-chloroethyl)ether	0.14	U	0.33	mg/kg wet							
Bis(2-chloroisopropyl)ether	0.099	U	0.33	mg/kg wet							
Bis(2-ethylhexyl)phthalate	0.13	U	0.33	mg/kg wet							
Butylbenzylphthalate	0.14	U	0.33	mg/kg wet							
Chrysene	0.13	U	0.33	mg/kg wet							
Dibenzo(a,h)anthracene	0.14	U	0.33	mg/kg wet							
Dibenzofuran	0.13	U	0.33	mg/kg wet							
Diethylphthalate	0.13	U	0.33	mg/kg wet							
Dimethylphthalate	0.13	U	0.33	mg/kg wet							
Di-n-butylphthalate	0.13	U	0.33	mg/kg wet							
Di-n-octylphthalate	0.13	U	0.33	mg/kg wet							
Fluoranthene	0.11	U	0.33	mg/kg wet							
Fluorene	0.14	U	0.33	mg/kg wet							
Hexachlorobenzene	0.12	U	0.33	mg/kg wet							
Hexachlorobutadiene	0.13	U	0.33	mg/kg wet							
Hexachlorocyclopentadiene	0.15	U	0.33	mg/kg wet							
Hexachloroethane	0.10	U	0.33	mg/kg wet							
Indeno(1,2,3-cd)pyrene	0.14	U	0.33	mg/kg wet							
Isophorone	0.17	U	0.33	mg/kg wet							
Naphthalene	0.12	U	0.33	mg/kg wet							
Nitrobenzene	0.15	U	0.33	mg/kg wet							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

Blank (5A06007-BLK1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 15:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
N-Nitrosodimethylamine	0.12	U	0.33	mg/kg wet							
N-Nitroso-di-n-propylamine	0.15	U	0.33	mg/kg wet							
N-nitrosodiphenylamine/Diphenylamine	0.23	U	0.33	mg/kg wet							
Pentachlorophenol	0.21	U	0.33	mg/kg wet							
Phenanthrene	0.13	U	0.33	mg/kg wet							
Phenol	0.099	U	0.33	mg/kg wet							
Pyrene	0.11	U	0.33	mg/kg wet							
Pyridine	0.15	U	0.33	mg/kg wet							
2,4,6-Tribromophenol	*1.4*			*mg/kg wet*	*1.67*		*86*	*23-137*			
2-Fluorobiphenyl	*1.6*			*mg/kg wet*	*1.67*		*94*	*29-119*			
2-Fluorophenol	*1.5*			*mg/kg wet*	*1.67*		*92*	*20-124*			
Nitrobenzene-d5	*1.4*			*mg/kg wet*	*1.67*		*85*	*17-126*			
Phenol-d5	*1.6*			*mg/kg wet*	*1.67*		*93*	*15-131*			
Terphenyl-d14	*2.0*			*mg/kg wet*	*1.67*		*122*	*60-120*			*QS-03*

LCS (5A06007-BS1) Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 16:04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.5		0.33	mg/kg wet	1.67		87	36-119			
1,4-Dichlorobenzene	1.4		0.33	mg/kg wet	1.67		87	32-116			
2,4-Dinitrotoluene	1.8		0.33	mg/kg wet	1.67		110	54-125			
2-Chlorophenol	1.5		0.33	mg/kg wet	1.67		91	50-105			
4-Chloro-3-methylphenol	1.6		0.33	mg/kg wet	1.67		98	55-106			
4-Nitrophenol	1.8		0.33	mg/kg wet	1.67		108	30-124			
Acenaphthene	1.5		0.33	mg/kg wet	1.67		93	49-111			
N-Nitroso-di-n-propylamine	1.8		0.33	mg/kg wet	1.67		106	52-126			
Pentachlorophenol	1.4		0.33	mg/kg wet	1.67		84	10-101			
Phenol	1.5		0.33	mg/kg wet	1.67		90	28-121			
Pyrene	1.7		0.33	mg/kg wet	1.67		101	66-115			
2,4,6-Tribromophenol	*1.6*			*mg/kg wet*	*1.67*		*99*	*23-137*			

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

LCS (5A06007-BS1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 16:04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Fluorobiphenyl	*1.4*			*mg/kg wet*	*1.67*		*87*	*29-119*			
2-Fluorophenol	*1.5*			*mg/kg wet*	*1.67*		*89*	*20-124*			
Nitrobenzene-d5	*1.5*			*mg/kg wet*	*1.67*		*88*	*17-126*			
Phenol-d5	*1.5*			*mg/kg wet*	*1.67*		*89*	*15-131*			
Terphenyl-d14	*1.7*			*mg/kg wet*	*1.67*		*103*	*60-120*			

Matrix Spike (5A06007-MS1) Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 16:32

Source: A500011-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.4		0.35	mg/kg dry	1.75	0.12 U	79	36-119			
1,4-Dichlorobenzene	1.2		0.35	mg/kg dry	1.75	0.11 U	71	32-116			
2,4-Dinitrotoluene	1.8		0.35	mg/kg dry	1.75	0.17 U	105	54-125			
2-Chlorophenol	1.6		0.35	mg/kg dry	1.75	0.24 U	91	50-105			
4-Chloro-3-methylphenol	1.8		0.35	mg/kg dry	1.75	0.29 U	100	55-106			
4-Nitrophenol	1.7		0.35	mg/kg dry	1.75	0.14 U	98	30-124			
Acenaphthene	1.6		0.35	mg/kg dry	1.75	0.14 U	94	49-111			
N-Nitroso-di-n-propylamine	1.9		0.35	mg/kg dry	1.75	0.16 U	111	52-126			
Pentachlorophenol	1.8		0.35	mg/kg dry	1.75	0.22 U	100	10-101			
Phenol	1.6		0.35	mg/kg dry	1.75	0.10 U	92	28-121			
Pyrene	1.7		0.35	mg/kg dry	1.75	0.12 U	100	66-115			
2,4,6-Tribromophenol	*1.7*			*mg/kg dry*	*1.75*		*96*	*23-137*			
2-Fluorobiphenyl	*1.5*			*mg/kg dry*	*1.75*		*86*	*29-119*			
2-Fluorophenol	*1.5*			*mg/kg dry*	*1.75*		*86*	*20-124*			
Nitrobenzene-d5	*1.5*			*mg/kg dry*	*1.75*		*84*	*17-126*			
Phenol-d5	*1.5*			*mg/kg dry*	*1.75*		*88*	*15-131*			
Terphenyl-d14	*1.7*			*mg/kg dry*	*1.75*		*99*	*60-120*			

Matrix Spike Dup (5A06007-MSD1) Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 17:00

Source: A500011-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.4		0.35	mg/kg dry	1.76	0.12 U	79	36-119	0.5	32	
1,4-Dichlorobenzene	1.3		0.35	mg/kg dry	1.76	0.11 U	73	32-116	2	34	
2,4-Dinitrotoluene	1.8		0.35	mg/kg dry	1.76	0.17 U	105	54-125	0.6	23	
2-Chlorophenol	1.6		0.35	mg/kg dry	1.76	0.24 U	93	50-105	2	27	
4-Chloro-3-methylphenol	1.8		0.35	mg/kg dry	1.76	0.29 U	101	55-106	1	28	
4-Nitrophenol	1.8		0.35	mg/kg dry	1.76	0.14 U	100	30-124	2	35	
Acenaphthene	1.6		0.35	mg/kg dry	1.76	0.14 U	93	49-111	0.7	27	
N-Nitroso-di-n-propylamine	2.0		0.35	mg/kg dry	1.76	0.16 U	112	52-126	1	24	
Pentachlorophenol	1.7		0.35	mg/kg dry	1.76	0.22 U	99	10-101	0.4	26	
Phenol	1.6		0.35	mg/kg dry	1.76	0.10 U	93	28-121	1	32	
Pyrene	1.7		0.35	mg/kg dry	1.76	0.12 U	96	66-115	3	28	
2,4,6-Tribromophenol	*1.7*			*mg/kg dry*	*1.76*		*96*	*23-137*			
2-Fluorobiphenyl	*1.4*			*mg/kg dry*	*1.76*		*81*	*29-119*			
2-Fluorophenol	*1.5*			*mg/kg dry*	*1.76*		*87*	*20-124*			
Nitrobenzene-d5	*1.4*			*mg/kg dry*	*1.76*		*81*	*17-126*			

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

Matrix Spike Dup (5A06007-MSD1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 17:00

Source: A500011-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phenol-d5	*1.6*			*mg/kg dry*	*1.76*		*89*	*15-131*			
Terphenyl-d14	*1.7*			*mg/kg dry*	*1.76*		*99*	*60-120*			

Batch 5A08009 - EPA 3510C_MS

Blank (5A08009-BLK1) Prepared: 01/08/2015 09:57 Analyzed: 01/12/2015 12:18

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	3.3	U	10	ug/L							
1,2-Dichlorobenzene	3.2	U	10	ug/L							
1,3-Dichlorobenzene	3.4	U	10	ug/L							
1,4-Dichlorobenzene	3.2	U	10	ug/L							
1-Methylnaphthalene	3.1	U	10	ug/L							
2,4,5-Trichlorophenol	3.9	U	10	ug/L							
2,4,6-Trichlorophenol	6.4	U	10	ug/L							
2,4-Dichlorophenol	6.5	U	10	ug/L							
2,4-Dimethylphenol	6.4	U	10	ug/L							
2,4-Dinitrophenol	7.7	U	10	ug/L							
2,4-Dinitrotoluene	3.2	U	10	ug/L							
2,6-Dinitrotoluene	2.9	U	10	ug/L							
2-Chloronaphthalene	3.2	U	10	ug/L							
2-Chlorophenol	7.4	U	10	ug/L							
2-Methyl-4,6-dinitrophenol	6.0	U	10	ug/L							
2-Methylnaphthalene	3.8	U	10	ug/L							
2-Methylphenol	3.5	U	10	ug/L							
2-Nitroaniline	3.3	U	10	ug/L							
2-Nitrophenol	5.2	U	10	ug/L							
3 & 4-Methylphenol	8.2	U	10	ug/L							
3,3'-Dichlorobenzidine	3.3	U	10	ug/L							
3-Nitroaniline	3.3	U	10	ug/L							
4-Bromophenyl-phenylether	3.3	U	10	ug/L							
4-Chloro-3-methylphenol	7.3	U	10	ug/L							
4-Chloroaniline	4.3	U	10	ug/L							
4-Chlorophenyl-phenylether	3.2	U	10	ug/L							
4-Nitroaniline	3.2	U	10	ug/L							
4-Nitrophenol	7.9	U	10	ug/L							
Acenaphthene	3.0	U	10	ug/L							
Acenaphthylene	3.3	U	10	ug/L							
Anthracene	3.0	U	10	ug/L							
Benzidine	7.1	U	10	ug/L							
Benzo(a)anthracene	3.2	U	10	ug/L							
Benzo(a)pyrene	3.1	U	10	ug/L							
Benzo(b)fluoranthene	3.4	U	10	ug/L							
Benzo(g,h,i)perylene	3.7	U	10	ug/L							
Benzo(k)fluoranthene	3.3	U	10	ug/L							
Benzoic acid	15	U	50	ug/L							
Benzyl alcohol	3.9	U	10	ug/L							
Bis(2-chloroethoxy)methane	3.3	U	10	ug/L							
Bis(2-chloroethyl)ether	3.8	U	10	ug/L							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A08009 - EPA 3510C_MS - Continued

Blank (5A08009-BLK1) Continued Prepared: 01/08/2015 09:57 Analyzed: 01/12/2015 12:18

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-chloroisopropyl)ether	3.5	U	10	ug/L							
Bis(2-ethylhexyl)phthalate	3.5	U	5.0	ug/L							
Butylbenzylphthalate	5.1	U	10	ug/L							
Chrysene	3.0	U	10	ug/L							
Dibenzo(a,h)anthracene	3.8	U	10	ug/L							
Dibenzofuran	2.8	U	10	ug/L							
Diethylphthalate	3.0	U	10	ug/L							
Dimethylphthalate	3.0	U	10	ug/L							
Di-n-butylphthalate	3.2	U	10	ug/L							
Di-n-octylphthalate	3.6	U	10	ug/L							
Fluoranthene	4.0	U	10	ug/L							
Fluorene	2.9	U	10	ug/L							
Hexachlorobenzene	3.0	U	10	ug/L							
Hexachlorobutadiene	4.1	U	10	ug/L							
Hexachlorocyclopentadiene	3.8	U	10	ug/L							
Hexachloroethane	3.0	U	10	ug/L							
Indeno(1,2,3-cd)pyrene	4.1	U	10	ug/L							
Isophorone	4.5	U	10	ug/L							
Naphthalene	3.6	U	10	ug/L							
Nitrobenzene	3.2	U	10	ug/L							
N-Nitrosodimethylamine	3.8	U	10	ug/L							
N-Nitroso-di-n-propylamine	4.5	U	10	ug/L							
N-nitrosodiphenylamine/Diphenylamine	5.4	U	10	ug/L							
Pentachlorophenol	8.2	U	10	ug/L							
Phenanthrene	2.8	U	10	ug/L							
Phenol	5.6	U	10	ug/L							
Pyrene	4.1	U	10	ug/L							
Pyridine	3.5	U	10	ug/L							
2,4,6-Tribromophenol	*52*			*ug/L*	*50.0*		*104*	*47-128*			
2-Fluorobiphenyl	*39*			*ug/L*	*50.0*		*77*	*44-102*			
2-Fluorophenol	*23*			*ug/L*	*50.0*		*47*	*25-79*			
Nitrobenzene-d5	*41*			*ug/L*	*50.0*		*82*	*43-112*			
Phenol-d5	*18*			*ug/L*	*50.0*		*37*	*14-54*			
Terphenyl-d14	*78*			*ug/L*	*50.0*		*155*	*65-122*			*QS-03*

LCS (5A08009-BS1) Prepared: 01/08/2015 09:57 Analyzed: 01/12/2015 12:47

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	20		10	ug/L	50.0		40	20-95			
1,4-Dichlorobenzene	19		10	ug/L	50.0		37	17-94			
2,4-Dinitrotoluene	65		10	ug/L	50.0		130	63-120			QL-02
2-Chlorophenol	39		10	ug/L	50.0		78	50-97			
4-Chloro-3-methylphenol	52		10	ug/L	50.0		104	54-108			
4-Nitrophenol	38		10	ug/L	50.0		77	10-79			
Acenaphthene	43		10	ug/L	50.0		87	50-95			
N-Nitroso-di-n-propylamine	50		10	ug/L	50.0		100	53-124			
Pentachlorophenol	62		10	ug/L	50.0		124	27-100			QL-02
Phenol	21		10	ug/L	50.0		42	14-54			
Pyrene	65		10	ug/L	50.0		130	61-115			QL-02

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A08009 - EPA 3510C_MS - Continued

LCS (5A08009-BS1) Continued Prepared: 01/08/2015 09:57 Analyzed: 01/12/2015 12:47

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,6-Tribromophenol	*58*			*ug/L*	*50.0*		*116*	*47-128*			
2-Fluorobiphenyl	*39*			*ug/L*	*50.0*		*78*	*44-102*			
2-Fluorophenol	*26*			*ug/L*	*50.0*		*52*	*25-79*			
Nitrobenzene-d5	*39*			*ug/L*	*50.0*		*77*	*43-112*			
Phenol-d5	*19*			*ug/L*	*50.0*		*38*	*14-54*			
Terphenyl-d14	*67*			*ug/L*	*50.0*		*135*	*65-122*			*QS-03*

Matrix Spike (5A08009-MS1) Prepared: 01/08/2015 09:57 Analyzed: 01/12/2015 13:44

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	17		10	ug/L	50.0	3.3 U	34	20-95			
1,4-Dichlorobenzene	16		10	ug/L	50.0	3.2 U	31	17-94			
2,4-Dinitrotoluene	57		10	ug/L	50.0	3.2 U	115	63-120			
2-Chlorophenol	36		10	ug/L	50.0	7.4 U	73	50-97			
4-Chloro-3-methylphenol	45		10	ug/L	50.0	7.3 U	90	54-108			
4-Nitrophenol	35		10	ug/L	50.0	7.9 U	70	10-79			
Acenaphthene	37		10	ug/L	50.0	3.0 U	73	50-95			
N-Nitroso-di-n-propylamine	47		10	ug/L	50.0	4.5 U	94	53-124			
Pentachlorophenol	55		10	ug/L	50.0	8.2 U	109	27-100			J-02
Phenol	19		10	ug/L	50.0	5.6 U	39	14-54			
Pyrene	54		10	ug/L	50.0	4.1 U	109	61-115			
2,4,6-Tribromophenol	*51*			*ug/L*	*50.0*		*101*	*47-128*			
2-Fluorobiphenyl	*37*			*ug/L*	*50.0*		*73*	*44-102*			
2-Fluorophenol	*24*			*ug/L*	*50.0*		*47*	*25-79*			
Nitrobenzene-d5	*37*			*ug/L*	*50.0*		*75*	*43-112*			
Phenol-d5	*18*			*ug/L*	*50.0*		*35*	*14-54*			
Terphenyl-d14	*56*			*ug/L*	*50.0*		*113*	*65-122*			

Matrix Spike Dup (5A08009-MSD1) Prepared: 01/08/2015 09:57 Analyzed: 01/12/2015 14:12

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	19		10	ug/L	50.0	3.3 U	38	20-95	10	32	
1,4-Dichlorobenzene	17		10	ug/L	50.0	3.2 U	35	17-94	9	34	
2,4-Dinitrotoluene	65		10	ug/L	50.0	3.2 U	130	63-120	13	23	J-02
2-Chlorophenol	34		10	ug/L	50.0	7.4 U	68	50-97	7	27	
4-Chloro-3-methylphenol	51		10	ug/L	50.0	7.3 U	103	54-108	13	28	
4-Nitrophenol	36		10	ug/L	50.0	7.9 U	71	10-79	2	35	
Acenaphthene	40		10	ug/L	50.0	3.0 U	79	50-95	7	27	
N-Nitroso-di-n-propylamine	46		10	ug/L	50.0	4.5 U	93	53-124	1	24	
Pentachlorophenol	58		10	ug/L	50.0	8.2 U	116	27-100	6	26	J-02
Phenol	17		10	ug/L	50.0	5.6 U	35	14-54	10	32	
Pyrene	57		10	ug/L	50.0	4.1 U	114	61-115	5	28	
2,4,6-Tribromophenol	*58*			*ug/L*	*50.0*		*116*	*47-128*			
2-Fluorobiphenyl	*37*			*ug/L*	*50.0*		*75*	*44-102*			
2-Fluorophenol	*22*			*ug/L*	*50.0*		*45*	*25-79*			
Nitrobenzene-d5	*37*			*ug/L*	*50.0*		*73*	*43-112*			
Phenol-d5	*16*			*ug/L*	*50.0*		*33*	*14-54*			
Terphenyl-d14	*59*			*ug/L*	*50.0*		*118*	*65-122*			

QUALITY CONTROL DATA

Tentatively Identified Compounds by Semivolatile GCMS - Quality Control

Batch 5A08009 - EPA 3510C_MS

Blank (5A08009-BLK1) Prepared: 01/08/2015 09:57 Analyzed: 01/12/2015 12:18

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Tentatively Identified Compounds	**0.0**			ug/L							

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 5A05015 - EPA 3511_MS

Blank (5A05015-BLK1) Prepared: 01/05/2015 14:00 Analyzed: 01/08/2015 16:47

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	0.047	U	0.10	ug/L							
2-Methylnaphthalene	0.044	U	0.10	ug/L							
Acenaphthene	0.037	U	0.10	ug/L							
Acenaphthylene	0.036	U	0.10	ug/L							
Anthracene	0.036	U	0.10	ug/L							
Benzo(a)anthracene	**0.091**	**I**	0.10	ug/L							
Benzo(a)pyrene	0.043	U	0.10	ug/L							
Benzo(b)fluoranthene	0.059	U	0.10	ug/L							
Benzo(g,h,i)perylene	0.040	U	0.10	ug/L							
Benzo(k)fluoranthene	0.046	U	0.10	ug/L							
Chrysene	0.051	U	0.10	ug/L							
Dibenzo(a,h)anthracene	**0.029**	**I**	0.10	ug/L							
Fluoranthene	0.051	U	0.10	ug/L							
Fluorene	0.038	U	0.10	ug/L							
Indeno(1,2,3-cd)pyrene	0.037	U	0.10	ug/L							
Naphthalene	0.035	U	0.10	ug/L							
Phenanthrene	0.039	U	0.10	ug/L							
Pyrene	0.048	U	0.10	ug/L							
p-Terphenyl	*9.6*			*ug/L*	*5.71*		*168*	*66-136*			*QS-03*

LCS (5A05015-BS1) Prepared: 01/05/2015 14:00 Analyzed: 01/08/2015 17:09

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	6.0		0.10	ug/L	5.71		105	80-120			
Benzo(a)pyrene	6.8		0.10	ug/L	5.71		119	73-149			
Benzo(g,h,i)perylene	6.7		0.10	ug/L	5.71		118	57-124			
Naphthalene	6.4		0.10	ug/L	5.71		111	68-120			
p-Terphenyl	*7.3*			*ug/L*	*5.71*		*128*	*66-136*			

Matrix Spike (5A05015-MS1) Prepared: 01/05/2015 14:00 Analyzed: 01/08/2015 17:30

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	6.1		0.10	ug/L	5.71	0.037 U	107	80-120			
Benzo(a)pyrene	6.9		0.10	ug/L	5.71	0.043 U	121	73-149			
Benzo(g,h,i)perylene	6.9		0.10	ug/L	5.71	0.040 U	121	57-124			
Naphthalene	6.5		0.10	ug/L	5.71	0.035 U	114	68-120			
p-Terphenyl	*8.6*			*ug/L*	*5.71*		*151*	*66-136*			*QS-03*

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 5A05015 - EPA 3511_MS - Continued

Matrix Spike Dup (5A05015-MSD1) Prepared: 01/05/2015 14:00 Analyzed: 01/08/2015 17:52

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	6.2		0.10	ug/L	5.71	0.037 U	108	80-120	1	25	
Benzo(a)pyrene	7.0		0.10	ug/L	5.71	0.043 U	122	73-149	0.6	25	
Benzo(g,h,i)perylene	7.0		0.10	ug/L	5.71	0.040 U	122	57-124	0.5	25	
Naphthalene	6.5		0.10	ug/L	5.71	0.035 U	113	68-120	0.7	25	
p-Terphenyl	*8.4*			*ug/L*	*5.71*		*147*	*66-136*			*QS-03*

Batch 5A06004 - EPA 3550C_MS

Blank (5A06004-BLK1) Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 13:52

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	0.019	U	0.035	mg/kg wet							
2-Methylnaphthalene	0.018	U	0.035	mg/kg wet							
Acenaphthene	0.015	U	0.035	mg/kg wet							
Acenaphthylene	0.018	U	0.035	mg/kg wet							
Anthracene	0.014	U	0.035	mg/kg wet							
Benzo(a)anthracene	0.014	U	0.035	mg/kg wet							
Benzo(a)pyrene	0.015	U	0.035	mg/kg wet							
Benzo(b)fluoranthene	0.017	U	0.035	mg/kg wet							
Benzo(g,h,i)perylene	0.015	U	0.035	mg/kg wet							
Benzo(k)fluoranthene	0.019	U	0.035	mg/kg wet							
Chrysene	0.012	U	0.035	mg/kg wet							
Dibenzo(a,h)anthracene	0.016	U	0.035	mg/kg wet							
Fluoranthene	0.017	U	0.035	mg/kg wet							
Fluorene	0.017	U	0.035	mg/kg wet							
Indeno(1,2,3-cd)pyrene	0.015	U	0.035	mg/kg wet							
Naphthalene	0.018	U	0.035	mg/kg wet							
Phenanthrene	0.015	U	0.035	mg/kg wet							
Pyrene	0.016	U	0.035	mg/kg wet							
p-Terphenyl	*1.7*			*mg/kg wet*	*2.00*		*86*	*50-150*			

LCS (5A06004-BS1) Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 14:37

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	1.3		0.035	mg/kg wet	2.00		64	39-106			

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 5A06004 - EPA 3550C_MS - Continued

LCS (5A06004-BS1) Continued Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 14:37

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzo(a)pyrene	1.3		0.035	mg/kg wet	2.00		64	60-118			
Benzo(g,h,i)perylene	1.6		0.035	mg/kg wet	2.00		79	50-117			
Naphthalene	1.3		0.035	mg/kg wet	2.00		66	34-95			
p-Terphenyl	*1.9*			*mg/kg wet*	*2.00*		*93*	*50-150*			

Matrix Spike (5A06004-MS1) Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 14:59

Source: A407585-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	1.4		0.042	mg/kg dry	2.38	0.018 U	59	39-106			
Benzo(a)pyrene	1.7		0.042	mg/kg dry	2.38	0.018 U	71	60-118			
Benzo(g,h,i)perylene	1.7		0.042	mg/kg dry	2.38	0.018 U	72	50-117			
Naphthalene	1.3		0.042	mg/kg dry	2.38	0.021 U	55	34-95			
p-Terphenyl	*2.0*			*mg/kg dry*	*2.38*		*85*	*50-150*			

Matrix Spike Dup (5A06004-MSD1) Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 15:20

Source: A407585-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	1.5		0.042	mg/kg dry	2.36	0.018 U	62	39-106	3	30	
Benzo(a)pyrene	1.7		0.042	mg/kg dry	2.36	0.018 U	74	60-118	4	30	
Benzo(g,h,i)perylene	1.6		0.042	mg/kg dry	2.36	0.018 U	69	50-117	4	30	
Naphthalene	1.3		0.042	mg/kg dry	2.36	0.021 U	56	34-95	1	30	
p-Terphenyl	*2.2*			*mg/kg dry*	*2.36*		*93*	*50-150*			

Organochlorine Pesticides by GC - Quality Control

Batch 5A05001 - EPA 3510C

Blank (5A05001-BLK1) Prepared: 01/05/2015 05:55 Analyzed: 01/09/2015 23:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.018	U	0.050	ug/L							
4,4'-DDE	0.036	U	0.050	ug/L							
4,4'-DDT	0.025	U	0.050	ug/L							
Aldrin	0.032	U	0.050	ug/L							
alpha-BHC	0.026	U	0.050	ug/L							
beta-BHC	0.022	U	0.050	ug/L							
Chlordane (tech)	0.32	U	0.50	ug/L							
Chlordane-alpha	0.022	U	0.050	ug/L							
Chlordane-gamma	0.018	U	0.050	ug/L							
delta-BHC	0.019	U	0.050	ug/L							
Dieldrin	0.017	U	0.050	ug/L							
Endosulfan I	0.016	U	0.050	ug/L							
Endosulfan II	0.017	U	0.050	ug/L							
Endosulfan sulfate	0.016	U	0.050	ug/L							
Endrin	0.014	U	0.050	ug/L							

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 5A05001 - EPA 3510C - Continued

Blank (5A05001-BLK1) Continued Prepared: 01/05/2015 05:55 Analyzed: 01/09/2015 23:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Endrin aldehyde	0.020	U	0.050	ug/L							
Endrin ketone	0.017	U	0.050	ug/L							
gamma-BHC	0.020	U	0.050	ug/L							
Heptachlor	0.018	U	0.050	ug/L							
Heptachlor epoxide	0.018	U	0.050	ug/L							
Isodrin	0.030	U	0.050	ug/L							
Methoxychlor	0.018	U	0.050	ug/L							
Mirex	0.034	U	0.050	ug/L							
Toxaphene	0.48	U	0.50	ug/L							
2,4,5,6-TCMX	*0.79*			*ug/L*	*1.00*		*79*	*38-142*			
Decachlorobiphenyl	*0.88*			*ug/L*	*1.00*		*88*	*34-159*			

LCS (5A05001-BS1) Prepared: 01/05/2015 05:55 Analyzed: 01/09/2015 23:22

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.88		0.050	ug/L	1.00		88	37-125			
Dieldrin	0.75		0.050	ug/L	1.00		75	46-127			
Endrin	0.66		0.050	ug/L	1.00		66	28-143			
2,4,5,6-TCMX	*0.72*			*ug/L*	*1.00*		*72*	*38-142*			
Decachlorobiphenyl	*0.67*			*ug/L*	*1.00*		*67*	*34-159*			

Matrix Spike (5A05001-MS1) Prepared: 01/05/2015 05:55 Analyzed: 01/09/2015 23:33

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.96		0.050	ug/L	1.00	0.025 U	96	37-125			
Dieldrin	0.95		0.050	ug/L	1.00	0.017 U	95	46-127			
Endrin	0.80		0.050	ug/L	1.00	0.014 U	80	28-143			
2,4,5,6-TCMX	*0.90*			*ug/L*	*1.00*		*90*	*38-142*			
Decachlorobiphenyl	*0.91*			*ug/L*	*1.00*		*91*	*34-159*			

Matrix Spike Dup (5A05001-MSD1) Prepared: 01/05/2015 05:55 Analyzed: 01/09/2015 23:45

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.90		0.050	ug/L	1.00	0.025 U	90	37-125	6	24	
Dieldrin	0.74		0.050	ug/L	1.00	0.017 U	74	46-127	25	21	QM-11
Endrin	0.67		0.050	ug/L	1.00	0.014 U	67	28-143	18	22	
2,4,5,6-TCMX	*0.63*			*ug/L*	*1.00*		*63*	*38-142*			
Decachlorobiphenyl	*0.73*			*ug/L*	*1.00*		*73*	*34-159*			

Batch 5A06017 - EPA 3550C

Blank (5A06017-BLK1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:45

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.00066	U	0.0017	mg/kg wet							
4,4'-DDE	0.00065	U	0.0017	mg/kg wet							

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 5A06017 - EPA 3550C - Continued

Blank (5A06017-BLK1) Continued Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:45

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.00066	U	0.0017	mg/kg wet							
Aldrin	0.00051	U	0.0017	mg/kg wet							
alpha-BHC	0.00056	U	0.0017	mg/kg wet							
beta-BHC	0.0010	U	0.0017	mg/kg wet							
Chlordane (tech)	0.0084	U	0.033	mg/kg wet							
Chlordane-alpha	0.00045	U	0.0017	mg/kg wet							
Chlordane-gamma	0.00045	U	0.0017	mg/kg wet							
delta-BHC	0.00050	U	0.0017	mg/kg wet							
Dieldrin	0.00045	U	0.0017	mg/kg wet							
Endosulfan I	0.00039	U	0.0017	mg/kg wet							
Endosulfan II	0.00048	U	0.0017	mg/kg wet							
Endosulfan sulfate	0.00049	U	0.0017	mg/kg wet							
Endrin	0.00074	U	0.0017	mg/kg wet							
Endrin aldehyde	0.00083	U	0.0017	mg/kg wet							
Endrin ketone	0.00047	U	0.0017	mg/kg wet							
gamma-BHC	0.00060	U	0.0017	mg/kg wet							
Heptachlor	0.00062	U	0.0017	mg/kg wet							
Heptachlor epoxide	0.00048	U	0.0017	mg/kg wet							
Isodrin	0.00062	U	0.0017	mg/kg wet							
Methoxychlor	0.00086	U	0.0017	mg/kg wet							
Mirex	0.0011	U	0.0017	mg/kg wet							
Toxaphene	0.017	U	0.033	mg/kg wet							
2,4,5,6-TCMX	*0.038*			*mg/kg wet*	*0.0333*		*114*	*20-137*			
Decachlorobiphenyl	*0.047*			*mg/kg wet*	*0.0333*		*140*	*13-183*			

LCS (5A06017-BS1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:56

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.040		0.0017	mg/kg wet	0.0333		120	37-125			
Dieldrin	0.040		0.0017	mg/kg wet	0.0333		120	46-127			

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 5A06017 - EPA 3550C - Continued

LCS (5A06017-BS1) Continued Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:56

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Endrin	0.039		0.0017	mg/kg wet	0.0333		116	28-143			
2,4,5,6-TCMX	*0.035*			*mg/kg wet*	*0.0333*		*106*	*20-137*			
Decachlorobiphenyl	*0.043*			*mg/kg wet*	*0.0333*		*129*	*13-183*			

Matrix Spike (5A06017-MS1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 15:08

Source: A500003-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.030		0.0035	mg/kg dry	0.0346	0.0014 U	87	37-125			
Dieldrin	0.036		0.0035	mg/kg dry	0.0346	0.00094 U	103	46-127			
Endrin	0.036		0.0035	mg/kg dry	0.0346	0.0015 U	104	28-143			
2,4,5,6-TCMX	*0.031*			*mg/kg dry*	*0.0346*		*89*	*20-137*			
Decachlorobiphenyl	*0.039*			*mg/kg dry*	*0.0346*		*113*	*13-183*			

Matrix Spike Dup (5A06017-MSD1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 15:19

Source: A500003-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.033		0.0035	mg/kg dry	0.0347	0.0014 U	96	37-125	10	24	
Dieldrin	0.039		0.0035	mg/kg dry	0.0347	0.00094 U	111	46-127	7	21	
Endrin	0.035		0.0035	mg/kg dry	0.0347	0.0015 U	100	28-143	3	22	
2,4,5,6-TCMX	*0.033*			*mg/kg dry*	*0.0347*		*95*	*20-137*			
Decachlorobiphenyl	*0.041*			*mg/kg dry*	*0.0347*		*117*	*13-183*			

Polychlorinated Biphenyls by GC - Quality Control

Batch 5A05002 - EPA 3510C

Blank (5A05002-BLK1) Prepared: 01/05/2015 05:55 Analyzed: 01/08/2015 09:55

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.49	U	0.50	ug/L							
PCB-1221	0.46	U	0.50	ug/L							
PCB-1232	0.47	U	0.50	ug/L							
PCB-1248	0.49	U	0.50	ug/L							
PCB-1254	0.50	U	0.50	ug/L							
PCB-1260	0.48	U	0.50	ug/L							
2,4,5,6-TCMX [2C]	*1.0*			*ug/L*	*1.00*		*103*	*38-142*			
Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*123*	*34-159*			

LCS (5A05002-BS1) Prepared: 01/05/2015 05:55 Analyzed: 01/08/2015 10:06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	9.2		0.50	ug/L	10.0		92	11-162			
PCB-1260	9.6		0.50	ug/L	10.0		96	10-166			
2,4,5,6-TCMX [2C]	*0.95*			*ug/L*	*1.00*		*95*	*38-142*			
Decachlorobiphenyl	*0.86*			*ug/L*	*1.00*		*86*	*34-159*			

QUALITY CONTROL DATA

Polychlorinated Biphenyls by GC - Quality Control

Batch 5A05002 - EPA 3510C - Continued

Matrix Spike (5A05002-MS1) Prepared: 01/05/2015 05:55 Analyzed: 01/08/2015 10:18

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	9.6		0.50	ug/L	10.0	0.49 U	96	11-162			
PCB-1260	11		0.50	ug/L	10.0	0.48 U	112	10-166			
2,4,5,6-TCMX [2C]	*0.97*			*ug/L*	*1.00*		*97*	*38-142*			
Decachlorobiphenyl	*1.3*			*ug/L*	*1.00*		*129*	*34-159*			

Matrix Spike Dup (5A05002-MSD1) Prepared: 01/05/2015 05:55 Analyzed: 01/08/2015 10:29

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	10		0.50	ug/L	10.0	0.49 U	104	11-162	8	23	
PCB-1260	10		0.50	ug/L	10.0	0.48 U	103	10-166	8	13	
2,4,5,6-TCMX [2C]	*1.0*			*ug/L*	*1.00*		*104*	*38-142*			
Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*115*	*34-159*			

Batch 5A06018 - EPA 3550C

Blank (5A06018-BLK1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:45

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.014	U	0.017	mg/kg wet							
PCB-1221	0.014	U	0.017	mg/kg wet							
PCB-1232	0.014	U	0.017	mg/kg wet							
PCB-1248	0.0063	U	0.017	mg/kg wet							
PCB-1254	0.016	U	0.017	mg/kg wet							
PCB-1260	0.011	U	0.017	mg/kg wet							
2,4,5,6-TCMX	*0.029*			*mg/kg wet*	*0.0333*		*88*	*20-137*			
Decachlorobiphenyl [2C]	*0.034*			*mg/kg wet*	*0.0333*		*103*	*13-183*			

LCS (5A06018-BS1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 15:53

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.38		0.017	mg/kg wet	0.333		115	29-185			
PCB-1260	0.35		0.017	mg/kg wet	0.333		104	66-171			
2,4,5,6-TCMX	*0.033*			*mg/kg wet*	*0.0333*		*99*	*20-137*			
Decachlorobiphenyl [2C]	*0.038*			*mg/kg wet*	*0.0333*		*112*	*13-183*			

Matrix Spike (5A06018-MS1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 16:05

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.38		0.041	mg/kg dry	0.397	0.034 U	95	29-185			

QUALITY CONTROL DATA

Polychlorinated Biphenyls by GC - Quality Control

Batch 5A06018 - EPA 3550C - Continued

Matrix Spike (5A06018-MS1) Continued Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 16:05

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1260	0.32		0.041	mg/kg dry	0.397	0.026 U	82	66-171			
2,4,5,6-TCMX	*0.027*			*mg/kg dry*	*0.0397*		*68*	*20-137*			
Decachlorobiphenyl [2C]	*0.035*			*mg/kg dry*	*0.0397*		*89*	*13-183*			

Matrix Spike Dup (5A06018-MSD1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 16:16

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.39		0.041	mg/kg dry	0.398	0.034 U	97	29-185	3	21	
PCB-1260	0.41		0.041	mg/kg dry	0.398	0.026 U	103	66-171	24	17	QM-11
2,4,5,6-TCMX	*0.026*			*mg/kg dry*	*0.0398*		*65*	*20-137*			
Decachlorobiphenyl [2C]	*0.045*			*mg/kg dry*	*0.0398*		*113*	*13-183*			

FL Petroleum Range Organics - Quality Control

Batch 5A05012 - EPA 3510C

Blank (5A05012-BLK1) Prepared: 01/05/2015 11:41 Analyzed: 01/07/2015 11:11

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	0.10	U	0.17	mg/L							
n-Nonatriacontane	*0.076*			*mg/L*	*0.100*		*76*	*36-144*			
o-Terphenyl	*0.056*			*mg/L*	*0.0500*		*113*	*39-156*			

LCS (5A05012-BS1) Prepared: 01/05/2015 11:41 Analyzed: 01/07/2015 11:43

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	1.2		0.17	mg/L	1.70		72	40-140			
n-Nonatriacontane	*0.058*			*mg/L*	*0.100*		*58*	*36-144*			
o-Terphenyl	*0.039*			*mg/L*	*0.0500*		*78*	*39-156*			

Matrix Spike (5A05012-MS1) Prepared: 01/05/2015 11:41 Analyzed: 01/07/2015 12:15

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	1.8		0.17	mg/L	1.70	0.10 U	108	40-140			
n-Nonatriacontane	*0.062*			*mg/L*	*0.100*		*62*	*36-144*			
o-Terphenyl	*0.061*			*mg/L*	*0.0500*		*122*	*39-156*			

Matrix Spike Dup (5A05012-MSD1) Prepared: 01/05/2015 11:41 Analyzed: 01/07/2015 12:47

Source: A500005-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	1.6		0.17	mg/L	1.70	0.10 U	95	40-140	13	25	
n-Nonatriacontane	*0.076*			*mg/L*	*0.100*		*76*	*36-144*			
o-Terphenyl	*0.051*			*mg/L*	*0.0500*		*102*	*39-156*			

Batch 5A07001 - EPA 3550C

QUALITY CONTROL DATA

FL Petroleum Range Organics - Quality Control

Batch 5A07001 - EPA 3550C - Continued

Blank (5A07001-BLK1) Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 18:26

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	3.4	U	5.7	mg/kg wet							
n-Nonatriacontane	*3.6*			*mg/kg wet*	*3.33*		*109*	*41-129*			
o-Terphenyl	*1.8*			*mg/kg wet*	*1.67*		*106*	*45-135*			

LCS (5A07001-BS1) Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 18:58

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	69		5.7	mg/kg wet	56.7		122	42-126			
n-Nonatriacontane	*3.0*			*mg/kg wet*	*3.33*		*89*	*41-129*			
o-Terphenyl	*1.9*			*mg/kg wet*	*1.67*		*115*	*45-135*			

Matrix Spike (5A07001-MS1) Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 19:29

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	83		6.8	mg/kg dry	67.7	4.1 U	123	42-126			
n-Nonatriacontane	*3.0*			*mg/kg dry*	*3.98*		*75*	*41-129*			
o-Terphenyl	*2.4*			*mg/kg dry*	*1.99*		*123*	*45-135*			

Matrix Spike Dup (5A07001-MSD1) Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 20:01

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	72		6.8	mg/kg dry	68.4	4.1 U	106	42-126	14	31	
n-Nonatriacontane	*1.8*			*mg/kg dry*	*4.02*		*46*	*41-129*			
o-Terphenyl	*2.3*			*mg/kg dry*	*2.01*		*114*	*45-135*			

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 4L29017 - EPA 7470A

Blank (4L29017-BLK1) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.0230	U	0.200	ug/L							

Blank (4L29017-BLK2) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:07

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.230	U	2.00	ug/L							

LCS (4L29017-BS1) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.08		0.200	ug/L	5.00		102	80-120			

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 4L29017 - EPA 7470A - Continued

Matrix Spike (4L29017-MS1) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:16

Source: A407536-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.20		0.200	ug/L	5.00	0.0230 U	104	75-125			

Matrix Spike Dup (4L29017-MSD1) Prepared: 01/06/2015 12:07 Analyzed: 01/07/2015 07:19

Source: A407536-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.20		0.200	ug/L	5.00	0.0230 U	104	75-125	0.05	20	

Post Spike (4L29017-PS1) Prepared: 01/07/2015 06:00 Analyzed: 01/07/2015 07:22

Source: A407536-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.99		0.200	ug/L	5.61	-0.00226	89	80-120			

Batch 5A05007 - EPA 7471B

Blank (5A05007-BLK1) Prepared: 01/05/2015 12:27 Analyzed: 01/06/2015 07:03

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00390	U	0.0100	mg/kg wet							

LCS (5A05007-BS1) Prepared: 01/05/2015 12:27 Analyzed: 01/06/2015 07:06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.585		0.0100	mg/kg wet	0.600		97	80-120			

Matrix Spike (5A05007-MS1) Prepared: 01/05/2015 12:27 Analyzed: 01/06/2015 07:13

Source: A407521-04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.678		0.0120	mg/kg dry	0.674	0.0287	96	75-125			

Matrix Spike Dup (5A05007-MSD1) Prepared: 01/05/2015 12:27 Analyzed: 01/06/2015 07:16

Source: A407521-04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.694		0.0120	mg/kg dry	0.695	0.0287	96	75-125	2	20	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5A07002 - EPA 3050B

Blank (5A07002-BLK1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.565	U	0.794	mg/kg wet							
Barium	0.0508	U	0.794	mg/kg wet							
Cadmium	0.0143	U	0.0794	mg/kg wet							

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5A07002 - EPA 3050B - Continued

Blank (5A07002-BLK1) Continued Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chromium	0.0492	U	0.794	mg/kg wet							
Lead	0.175	U	0.794	mg/kg wet							
Selenium	0.571	U	3.17	mg/kg wet							
Silver	0.114	U	0.794	mg/kg wet							

LCS (5A07002-BS1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:13

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	46.3		0.980	mg/kg wet	49.0		94	80-120			
Barium	46.8		0.980	mg/kg wet	49.0		96	80-120			
Cadmium	4.75		0.0980	mg/kg wet	4.90		97	80-120			
Chromium	47.3		0.980	mg/kg wet	49.0		96	80-120			
Lead	46.8		0.980	mg/kg wet	49.0		95	80-120			
Selenium	44.9		3.92	mg/kg wet	49.0		92	80-120			
Silver	9.38		0.980	mg/kg wet	9.80		96	80-120			

Matrix Spike (5A07002-MS1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:15

Source: B500221-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	30.1		0.794	mg/kg wet	39.7	0.864	74	75-125			QM-07
Barium	152		0.794	mg/kg wet	39.7	112	101	75-125			
Cadmium	2.96		0.0794	mg/kg wet	3.97	0.0143 U	75	75-125			
Chromium	37.9		0.794	mg/kg wet	39.7	6.51	79	75-125			
Lead	37.8		0.794	mg/kg wet	39.7	7.73	76	75-125			
Selenium	30.6		3.17	mg/kg wet	39.7	1.89	72	75-125			QM-07
Silver	5.81		0.794	mg/kg wet	7.94	0.114 U	73	75-125			QM-07

Matrix Spike Dup (5A07002-MSD1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:17

Source: B500221-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	29.1		0.781	mg/kg wet	39.1	0.864	72	75-125	3	30	QM-07
Barium	151		0.781	mg/kg wet	39.1	112	99	75-125	0.8	30	
Cadmium	2.89		0.0781	mg/kg wet	3.91	0.0141 U	74	75-125	3	30	QM-07

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5A07002 - EPA 3050B - Continued

Matrix Spike Dup (5A07002-MSD1) Continued Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:17

Source: B500221-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chromium	37.1		0.781	mg/kg wet	39.1	6.51	78	75-125	2	30	
Lead	37.0		0.781	mg/kg wet	39.1	7.73	75	75-125	2	30	
Selenium	29.9		3.12	mg/kg wet	39.1	1.89	72	75-125	2	30	QM-07
Silver	5.65		0.781	mg/kg wet	7.81	0.112 U	72	75-125	3	30	QM-07

Post Spike (5A07002-PS1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 13:44

Source: B500221-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.504		0.0100	mg/L	0.500	7.30E-5	101	80-120			
Cadmium	0.0509		0.00100	mg/L	0.0500	9.80E-5	102	80-120			
Selenium	0.503		0.0400	mg/L	0.500	9.54E-6	101	80-120			
Silver	0.102		0.0100	mg/L	0.100	-9.45E-6	102	80-120			

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 5A06002 - EPA 3005A

Blank (5A06002-BLK1) Prepared: 01/06/2015 09:18 Analyzed: 01/07/2015 10:14

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	7.12	U	10.0	ug/L							
Barium	0.630	U	10.0	ug/L							
Cadmium	0.170	U	1.00	ug/L							
Chromium	1.30	U	10.0	ug/L							
Lead	2.20	U	10.0	ug/L							
Selenium	6.60	U	40.0	ug/L							
Silver	1.20	U	10.0	ug/L							

LCS (5A06002-BS1) Prepared: 01/06/2015 09:18 Analyzed: 01/07/2015 10:17

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	502		10.0	ug/L	500		100	80-120			
Barium	499		10.0	ug/L	500		100	80-120			
Cadmium	50.5		1.00	ug/L	50.0		101	80-120			
Chromium	501		10.0	ug/L	500		100	80-120			
Lead	499		10.0	ug/L	500		100	80-120			
Selenium	508		40.0	ug/L	500		102	80-120			
Silver	99.7		10.0	ug/L	100		100	80-120			

Matrix Spike (5A06002-MS1) Prepared: 01/06/2015 09:18 Analyzed: 01/07/2015 10:19

Source: B404347-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	518		10.0	ug/L	500	23.0	99	75-125			
Barium	500		10.0	ug/L	500	8.59	98	75-125			
Cadmium	49.3		1.00	ug/L	50.0	0.170 U	99	75-125			
Chromium	508		10.0	ug/L	500	10.8	99	75-125			

QUALITY CONTROL DATA

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 5A06002 - EPA 3005A - Continued

Matrix Spike (5A06002-MS1) Continued Prepared: 01/06/2015 09:18 Analyzed: 01/07/2015 10:19

Source: B404347-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	492		10.0	ug/L	500	2.82	98	75-125			
Selenium	501		40.0	ug/L	500	6.60 U	100	75-125			
Silver	99.9		10.0	ug/L	100	1.20 U	100	75-125			

Matrix Spike Dup (5A06002-MSD1) Prepared: 01/06/2015 09:18 Analyzed: 01/07/2015 10:21

Source: B404347-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	523		10.0	ug/L	500	23.0	100	75-125	1	20	
Barium	507		10.0	ug/L	500	8.59	100	75-125	2	20	
Cadmium	50.1		1.00	ug/L	50.0	0.170 U	100	75-125	2	20	
Chromium	517		10.0	ug/L	500	10.8	101	75-125	2	20	
Lead	500		10.0	ug/L	500	2.82	100	75-125	2	20	
Selenium	510		40.0	ug/L	500	6.60 U	102	75-125	2	20	
Silver	101		10.0	ug/L	100	1.20 U	101	75-125	1	20	

FLAGS/NOTES AND DEFINITIONS

PQL	PQL: Practical Quantitation Limit.
B	Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
I	The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
J	Estimated value.
K	Off-scale low; Actual value is known to be less than the value given.
L	Off-scale high; Actual value is known to be greater than value given.
M	Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample exceeded the accepted holding time.
T	Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC); the numeric value represents the filtration volume.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not reported due to interference.
J-01	Result is estimated due to positive results in the associated method blank.
J-02	Result is estimated due to bias in the associated laboratory control sample (LCS).
J-04	Result estimated, calibration verification standard failed with high bias.
J-05	Result estimated, calibration verification standard failed with low bias.
O-01	This compound is a common laboratory contaminant.
QL-02	The associated laboratory control sample exhibited high bias; since the result is ND, the impact on data quality is minimal.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-11	Precision between duplicate matrix spikes of the same sample was outside acceptance limits.
QS-03	Surrogate recovery outside acceptance limits
QV-01	The associated continuing calibration verification standard exhibited high bias; since the result is ND, the impact on data quality is minimal.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Client Name: GEC	Project Number: 3492E
Address: 919 Lake Baldwin Ln	Project Name/Desc: I-4 Level II
City/ST/Zip: Orlando, Fl 32814	PO # / Billing Info:
Tel: 407-898-1818 Fax: 407-898-1837	Reporting Contact: Rich McCormick
Sampler(s) Name, Affiliation (Print): Jerry W. Governale	Billing Contact:
Sampler(s) Signature:	Site Location / Time Zone:

Requested Analyses: Table D waste oil group

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due ___/___/___

Lab Workorder: A500011

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	‡ Total # of Containers	Preservation	Sample Comments
1	TMW-10	12/15	0930	Grab	GW	8	✓	
2	SB-117 1.5'	12/15	1035	Grab	SO	6	✓	
3	SB-122 4.5'	12/15	1015	Grab	SO	6	✓	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
				Jerry W. Governale	12/10/14 1600
Comments/Special Reporting Requirements:		Relinquished By: Jerry W. Governale	Date/Time: 1/2/15 1340	Received By:	Date/Time: 12/10/14 1600
		Relinquished By:	Date/Time: 1/2/15 1340	Received By:	Date/Time: 1/2/15 1340
		Cooler #'s & Temps on Receipt: C-505 6°C		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist.

1/2/2015 1240

ENCO Laboratories
Accurate. Timely. Responsive. Innovative.

10775 Central Port Drive
Orlando FL, 32824
Phone: 407.826.5314 FAX: 407.850.6945

Thursday, January 15, 2015
Geotechnical and Environmental (GE002)
Attn: Richard McCormick
919 Lake Baldwin Lane
Orlando, FL 32814

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: I-4 Level II
ENCO Workorder(s): A500010

Dear Richard McCormick,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, January 6, 2015.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Orlando. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Ronald Wambles For David Camacho

Project Manager

Enclosure(s)

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: SB-109 8.5' **Lab ID: A500010-01** **Sampled: 01/05/15 12:33** **Received: 01/06/15 08:30**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 7471B	02/02/15		01/08/15	13:34	01/09/15 07:18
EPA 8081B	01/19/15	02/15/15	01/06/15	14:00	01/12/15 16:28
EPA 8082A	01/05/16	01/05/16	01/06/15	14:00	01/12/15 16:28
EPA 8260B	01/19/15		01/08/15	00:00	01/08/15 12:47
EPA 8270D	01/19/15	02/16/15	01/07/15	05:55	01/12/15 18:24
FL-PRO	01/19/15	02/16/15	01/07/15	05:55	01/07/15 20:32

Client ID: SB-109 8.5' **Lab ID: A500010-01RE1** **Sampled: 01/05/15 12:33** **Received: 01/06/15 08:30**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	07/04/15		01/07/15	09:09	01/09/15 10:53
EPA 8270D	01/19/15	02/16/15	01/07/15	05:55	01/15/15 13:57

Client ID: SB-107 1.5' **Lab ID: A500010-02** **Sampled: 01/05/15 12:45** **Received: 01/06/15 08:30**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	07/04/15		01/07/15	09:09	01/08/15 12:45
EPA 7471B	02/02/15		01/08/15	13:34	01/09/15 07:35
EPA 8081B	01/19/15	02/15/15	01/06/15	14:00	01/12/15 16:53
EPA 8082A	01/05/16	01/05/16	01/06/15	14:00	01/12/15 16:53
EPA 8260B	01/19/15		01/08/15	00:00	01/08/15 13:15
EPA 8270D	01/19/15	02/16/15	01/07/15	05:55	01/12/15 18:52
FL-PRO	01/19/15	02/16/15	01/07/15	05:55	01/07/15 21:04

Client ID: SB-107 1.5' **Lab ID: A500010-02RE1** **Sampled: 01/05/15 12:45** **Received: 01/06/15 08:30**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8270D	01/19/15	02/16/15	01/07/15	05:55	01/15/15 14:19

SAMPLE DETECTION SUMMARY

Client ID: SB-109 8.5' **Lab ID: A500010-01**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Acetone	0.041		0.0016	0.0048	mg/kg dry	EPA 8260B	J-02, J-04, O-01, QM-07
Methylene Chloride	0.0018	IV	0.0007	0.0019	mg/kg dry	EPA 8260B	J-01, O-01

Client ID: SB-109 8.5' **Lab ID: A500010-01RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	173		0.197	3.07	mg/kg dry	EPA 6010C	
Chromium - Total	10.3		0.191	3.07	mg/kg dry	EPA 6010C	
Lead - Total	11.8		0.676	3.07	mg/kg dry	EPA 6010C	
Selenium - Total	2.29	I	2.21	12.3	mg/kg dry	EPA 6010C	R-01

Client ID: SB-107 1.5' **Lab ID: A500010-02**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Acetone	0.012		0.0020	0.0059	mg/kg dry	EPA 8260B	J-02, J-04, O-01
Barium - Total	4.44		0.0431	0.674	mg/kg dry	EPA 6010C	
Chromium - Total	0.426	I	0.0418	0.674	mg/kg dry	EPA 6010C	
Lead - Total	0.293	I	0.148	0.674	mg/kg dry	EPA 6010C	
Methylene Chloride	0.0040	V	0.0008	0.0024	mg/kg dry	EPA 8260B	J-01, O-01

Client ID: SB-107 1.5' **Lab ID: A500010-02RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Chrysene	0.012	I	0.012	0.036	mg/kg dry	EPA 8270D	

ANALYTICAL RESULTS

Description: SB-109 8.5' | **Lab Sample ID:** A500010-01 | **Received:** 01/06/15 08:30

Matrix: Soil | **Sampled:** 01/05/15 12:33 | **Work Order:** A500010

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 83.40

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,1,1-Trichloroethane [71-55-6]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,1,2,2-Tetrachloroethane [79-34-5]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,1,2-Trichloroethane [79-00-5]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,1-Dichloroethane [75-34-3]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,1-Dichloroethene [75-35-4]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	QV-01
1,1-Dichloropropene [563-58-6]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2,3-Trichlorobenzene [87-61-6]^	0.0009	U	mg/kg dry	1	0.0009	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2,3-Trichloropropane [96-18-4]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2,4-Trichlorobenzene [120-82-1]^	0.0008	U	mg/kg dry	1	0.0008	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2,4-Trimethylbenzene [95-63-6]^	0.0007	U	mg/kg dry	1	0.0007	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2-Dibromo-3-chloropropane [96-12-8]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2-Dibromoethane [106-93-4]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2-Dichlorobenzene [95-50-1]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2-Dichloroethane [107-06-2]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,2-Dichloropropane [78-87-5]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,3,5-Trimethylbenzene [108-67-8]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,3-Dichlorobenzene [541-73-1]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
1,3-Dichloropropane [142-28-9]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	QV-01
1,4-Dichlorobenzene [106-46-7]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
2,2-Dichloropropane [594-20-7]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
2-Butanone [78-93-3]^	0.0017	U	mg/kg dry	1	0.0017	0.0048	5A08016	EPA 8260B	01/08/15 12:47	KKW	QM-07
2-Chloroethyl Vinyl Ether [110-75-8]^	0.0016	U	mg/kg dry	1	0.0016	0.0048	5A08016	EPA 8260B	01/08/15 12:47	KKW	
2-Chlorotoluene [95-49-8]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
2-Hexanone [591-78-6]^	0.0009	U	mg/kg dry	1	0.0009	0.0048	5A08016	EPA 8260B	01/08/15 12:47	KKW	QL-02, QV-01
4-Chlorotoluene [106-43-4]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
4-Isopropyltoluene [99-87-6]^	0.0007	U	mg/kg dry	1	0.0007	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
4-Methyl-2-pentanone [108-10-1]^	0.0013	U	mg/kg dry	1	0.0013	0.0048	5A08016	EPA 8260B	01/08/15 12:47	KKW	QL-02, QM-07, QV-01
Acetone [67-64-1]^	**0.041**		mg/kg dry	1	0.0016	0.0048	5A08016	EPA 8260B	01/08/15 12:47	KKW	J-02, J-04, O-01, QM-07
Benzene [71-43-2]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Bromobenzene [108-86-1]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Bromochloromethane [74-97-5]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Bromodichloromethane [75-27-4]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Bromoform [75-25-2]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Bromomethane [74-83-9]^	0.0009	U	mg/kg dry	1	0.0009	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	QV-01
Carbon disulfide [75-15-0]^	0.0020	U	mg/kg dry	1	0.0020	0.0048	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Carbon Tetrachloride [56-23-5]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	QM-07
Chlorobenzene [108-90-7]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Chloroethane [75-00-3]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	QV-01, QL-02
Chloroform [67-66-3]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Chloromethane [74-87-3]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	QV-01
cis-1,2-Dichloroethene [156-59-2]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
cis-1,3-Dichloropropene [10061-01-5]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	

ANALYTICAL RESULTS

Description: SB-109 8.5' | **Lab Sample ID:** A500010-01 | **Received:** 01/06/15 08:30
Matrix: Soil | **Sampled:** 01/05/15 12:33 | **Work Order:** A500010
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 83.40

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Dibromochloromethane [124-48-1]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Dibromomethane [74-95-3]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Dichlorodifluoromethane [75-71-8]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Ethylbenzene [100-41-4]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Hexachlorobutadiene [87-68-3]^	0.0009	U	mg/kg dry	1	0.0009	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Isopropylbenzene [98-82-8]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
m,p-Xylenes [108-38-3/106-42-3]^	0.0010	U	mg/kg dry	1	0.0010	0.0019	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Methylene Chloride [75-09-2]^	**0.0018**	IV	mg/kg dry	1	0.0007	0.0019	5A08016	EPA 8260B	01/08/15 12:47	KKW	J-01, O-01
Methyl-tert-Butyl Ether [1634-04-4]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Naphthalene [91-20-3]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
n-Butyl Benzene [104-51-8]^	0.0009	U	mg/kg dry	1	0.0009	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
n-Propyl Benzene [103-65-1]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
o-Xylene [95-47-6]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
sec-Butylbenzene [135-98-8]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Styrene [100-42-5]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
tert-Butylbenzene [98-06-6]^	0.0006	U	mg/kg dry	1	0.0006	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Tetrachloroethene [127-18-4]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Toluene [108-88-3]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
trans-1,2-Dichloroethene [156-60-5]^	0.0007	U	mg/kg dry	1	0.0007	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
trans-1,3-Dichloropropene [10061-02-6]^	0.0003	U	mg/kg dry	1	0.0003	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Trichloroethene [79-01-6]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Trichlorofluoromethane [75-69-4]^	0.0005	U	mg/kg dry	1	0.0005	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Vinyl chloride [75-01-4]^	0.0004	U	mg/kg dry	1	0.0004	0.0010	5A08016	EPA 8260B	01/08/15 12:47	KKW	
Xylenes (Total) [1330-20-7]^	0.0010	U	mg/kg dry	1	0.0010	0.0019	5A08016	EPA 8260B	01/08/15 12:47	KKW	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*97 %*	*71-126*	*5A08016*	*EPA 8260B*	*01/08/15 12:47*	*KKW*	
Dibromofluoromethane	*45*	*1*	*50.0*	*90 %*	*72-133*	*5A08016*	*EPA 8260B*	*01/08/15 12:47*	*KKW*	
Toluene-d8	*46*	*1*	*50.0*	*93 %*	*80-123*	*5A08016*	*EPA 8260B*	*01/08/15 12:47*	*KKW*	

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,2,4-Trichlorobenzene [120-82-1]^	0.13	U	mg/kg dry	1	0.13	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
1,2-Dichlorobenzene [95-50-1]^	0.14	U	mg/kg dry	1	0.14	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
1,3-Dichlorobenzene [541-73-1]^	0.14	U	mg/kg dry	1	0.14	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
1,4-Dichlorobenzene [106-46-7]^	0.12	U	mg/kg dry	1	0.12	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
1-Methylnaphthalene [90-12-0]^	0.12	U	mg/kg dry	1	0.12	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2,4,5-Trichlorophenol [95-95-4]^	0.080	U	mg/kg dry	1	0.080	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2,4,6-Trichlorophenol [88-06-2]^	0.18	U	mg/kg dry	1	0.18	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2,4-Dichlorophenol [120-83-2]^	0.30	U	mg/kg dry	1	0.30	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2,4-Dimethylphenol [105-67-9]^	0.28	U	mg/kg dry	1	0.28	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2,4-Dinitrophenol [51-28-5]^	0.11	U	mg/kg dry	1	0.11	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2,4-Dinitrotoluene [121-14-2]^	0.19	U	mg/kg dry	1	0.19	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2,6-Dinitrotoluene [606-20-2]^	0.22	U	mg/kg dry	1	0.22	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2-Chloronaphthalene [91-58-7]^	0.12	U	mg/kg dry	1	0.12	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2-Chlorophenol [95-57-8]^	0.28	U	mg/kg dry	1	0.28	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2-Methyl-4,6-dinitrophenol [534-52-1]^	0.34	U	mg/kg dry	1	0.34	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	

ANALYTICAL RESULTS

Description: SB-109 8.5' | **Lab Sample ID:** A500010-01 | **Received:** 01/06/15 08:30

Matrix: Soil | **Sampled:** 01/05/15 12:33 | **Work Order:** A500010

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 83.40

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2-Methylnaphthalene [91-57-6]^	0.14	U	mg/kg dry	1	0.14	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2-Methylphenol [95-48-7]^	0.13	U	mg/kg dry	1	0.13	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2-Nitroaniline [88-74-4]^	0.10	U	mg/kg dry	1	0.10	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
2-Nitrophenol [88-75-5]^	0.31	U	mg/kg dry	1	0.31	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
3 & 4-Methylphenol [108-39-4/106-44-5]^	0.30	U	mg/kg dry	1	0.30	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
3,3'-Dichlorobenzidine [91-94-1]^	0.25	U	mg/kg dry	1	0.25	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	QL-02
3-Nitroaniline [99-09-2]^	0.096	U	mg/kg dry	1	0.096	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
4-Bromophenyl-phenylether [101-55-3]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
4-Chloro-3-methylphenol [59-50-7]^	0.34	U	mg/kg dry	1	0.34	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
4-Chloroaniline [106-47-8]^	0.078	U	mg/kg dry	1	0.078	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
4-Chlorophenyl-phenylether [7005-72-3]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
4-Nitroaniline [100-01-6]^	0.31	U	mg/kg dry	1	0.31	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
4-Nitrophenol [100-02-7]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Acenaphthene [83-32-9]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Acenaphthylene [208-96-8]^	0.14	U	mg/kg dry	1	0.14	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Anthracene [120-12-7]^	0.18	U	mg/kg dry	1	0.18	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Benzidine [92-87-5]^	0.10	U	mg/kg dry	1	0.10	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	J-02
Benzo(a)anthracene [56-55-3]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Benzo(a)pyrene [50-32-8]^	0.094	U	mg/kg dry	1	0.094	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.13	U	mg/kg dry	1	0.13	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.19	U	mg/kg dry	1	0.19	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.13	U	mg/kg dry	1	0.13	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Benzoic acid [65-85-0]^	0.58	U	mg/kg dry	1	0.58	2.0	5A06007	EPA 8270D	01/12/15 18:24	jfi	J-05
Benzyl alcohol [100-51-6]^	0.19	U	mg/kg dry	1	0.19	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Bis(2-chloroethoxy)methane [111-91-1]^	0.18	U	mg/kg dry	1	0.18	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	QV-01
Bis(2-chloroethyl)ether [111-44-4]^	0.17	U	mg/kg dry	1	0.17	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Bis(2-chloroisopropyl)ether [108-60-1]^	0.12	U	mg/kg dry	1	0.12	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Bis(2-ethylhexyl)phthalate [117-81-7]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Butylbenzylphthalate [85-68-7]^	0.17	U	mg/kg dry	1	0.17	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Chrysene [218-01-9]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.17	U	mg/kg dry	1	0.17	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Dibenzofuran [132-64-9]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Diethylphthalate [84-66-2]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Dimethylphthalate [131-11-3]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Di-n-butylphthalate [84-74-2]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Di-n-octylphthalate [117-84-0]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Fluoranthene [206-44-0]^	0.13	U	mg/kg dry	1	0.13	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Fluorene [86-73-7]^	0.17	U	mg/kg dry	1	0.17	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Hexachlorobenzene [118-74-1]^	0.14	U	mg/kg dry	1	0.14	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Hexachlorobutadiene [87-68-3]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Hexachlorocyclopentadiene [77-47-4]^	0.18	U	mg/kg dry	1	0.18	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Hexachloroethane [67-72-1]^	0.12	U	mg/kg dry	1	0.12	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.17	U	mg/kg dry	1	0.17	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Isophorone [78-59-1]^	0.20	U	mg/kg dry	1	0.20	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Naphthalene [91-20-3]^	0.14	U	mg/kg dry	1	0.14	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Nitrobenzene [98-95-3]^	0.18	U	mg/kg dry	1	0.18	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
N-Nitrosodimethylamine [62-75-9]^	0.14	U	mg/kg dry	1	0.14	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
N-Nitroso-di-n-propylamine [621-64-7]^	0.18	U	mg/kg dry	1	0.18	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	

ANALYTICAL RESULTS

Description: SB-109 8.5' | **Lab Sample ID:** A500010-01 | **Received:** 01/06/15 08:30
Matrix: Soil | **Sampled:** 01/05/15 12:33 | **Work Order:** A500010
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 83.40

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4]^	0.28	U	mg/kg dry	1	0.28	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Pentachlorophenol [87-86-5]^	0.25	U	mg/kg dry	1	0.25	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Phenanthrene [85-01-8]^	0.16	U	mg/kg dry	1	0.16	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Phenol [108-95-2]^	0.12	U	mg/kg dry	1	0.12	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Pyrene [129-00-0]^	0.13	U	mg/kg dry	1	0.13	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	
Pyridine [110-86-1]^	0.18	U	mg/kg dry	1	0.18	0.40	5A06007	EPA 8270D	01/12/15 18:24	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*1.6*	*1*	*2.01*	*81 %*	*23-137*	*5A06007*	*EPA 8270D*	*01/12/15 18:24*	*jfi*	
2-Fluorobiphenyl	*1.1*	*1*	*2.01*	*57 %*	*29-119*	*5A06007*	*EPA 8270D*	*01/12/15 18:24*	*jfi*	
2-Fluorophenol	*1.5*	*1*	*2.01*	*73 %*	*20-124*	*5A06007*	*EPA 8270D*	*01/12/15 18:24*	*jfi*	
Nitrobenzene-d5	*1.2*	*1*	*2.01*	*61 %*	*17-126*	*5A06007*	*EPA 8270D*	*01/12/15 18:24*	*jfi*	
Phenol-d5	*1.7*	*1*	*2.01*	*83 %*	*15-131*	*5A06007*	*EPA 8270D*	*01/12/15 18:24*	*jfi*	
Terphenyl-d14	*2.2*	*1*	*2.01*	*109 %*	*60-120*	*5A06007*	*EPA 8270D*	*01/12/15 18:24*	*jfi*	

Semivolatile Organic Compounds by GCMS SIM

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1-Methylnaphthalene [90-12-0]^	0.023	U	mg/kg dry	1	0.023	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
2-Methylnaphthalene [91-57-6]^	0.022	U	mg/kg dry	1	0.022	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Acenaphthene [83-32-9]^	0.018	U	mg/kg dry	1	0.018	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Acenaphthylene [208-96-8]^	0.022	U	mg/kg dry	1	0.022	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Anthracene [120-12-7]^	0.017	U	mg/kg dry	1	0.017	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Benzo(a)anthracene [56-55-3]^	0.017	U	mg/kg dry	1	0.017	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Benzo(a)pyrene [50-32-8]^	0.018	U	mg/kg dry	1	0.018	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.020	U	mg/kg dry	1	0.020	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.018	U	mg/kg dry	1	0.018	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.023	U	mg/kg dry	1	0.023	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Chrysene [218-01-9]^	0.014	U	mg/kg dry	1	0.014	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.019	U	mg/kg dry	1	0.019	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Fluoranthene [206-44-0]^	0.020	U	mg/kg dry	1	0.020	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Fluorene [86-73-7]^	0.020	U	mg/kg dry	1	0.020	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.018	U	mg/kg dry	1	0.018	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Naphthalene [91-20-3]^	0.022	U	mg/kg dry	1	0.022	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Phenanthrene [85-01-8]^	0.018	U	mg/kg dry	1	0.018	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	
Pyrene [129-00-0]^	0.019	U	mg/kg dry	1	0.019	0.042	5A06004	EPA 8270D	01/15/15 13:57	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
p-Terphenyl	*2.3*	*1*	*2.40*	*96 %*	*50-150*	*5A06004*	*EPA 8270D*	*01/15/15 13:57*	*jfi*	

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0016	U	mg/kg dry	2	0.0016	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
4,4'-DDE [72-55-9]^	0.0016	U	mg/kg dry	2	0.0016	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0016	U	mg/kg dry	2	0.0016	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Aldrin [309-00-2]^	0.0012	U	mg/kg dry	2	0.0012	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
alpha-BHC [319-84-6]^	0.0013	U	mg/kg dry	2	0.0013	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	

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ANALYTICAL RESULTS

Description: SB-109 8.5' | **Lab Sample ID:** A500010-01 | **Received:** 01/06/15 08:30

Matrix: Soil | **Sampled:** 01/05/15 12:33 | **Work Order:** A500010

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 83.40

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
beta-BHC [319-85-7]^	0.0024	U	mg/kg dry	2	0.0024	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Chlordane (tech) [12789-03-6]^	0.020	U	mg/kg dry	2	0.020	0.079	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Chlordane-alpha [5103-71-9]^	0.0011	U	mg/kg dry	2	0.0011	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Chlordane-gamma [5566-34-7]^	0.0011	U	mg/kg dry	2	0.0011	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
delta-BHC [319-86-8]^	0.0012	U	mg/kg dry	2	0.0012	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Dieldrin [60-57-1]^	0.0011	U	mg/kg dry	2	0.0011	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Endosulfan I [959-98-8]^	0.00094	U	mg/kg dry	2	0.00094	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Endosulfan II [33213-65-9]^	0.0012	U	mg/kg dry	2	0.0012	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Endosulfan sulfate [1031-07-8]^	0.0012	U	mg/kg dry	2	0.0012	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Endrin [72-20-8]^	0.0018	U	mg/kg dry	2	0.0018	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Endrin aldehyde [7421-93-4]^	0.0020	U	mg/kg dry	2	0.0020	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Endrin ketone [53494-70-5]^	0.0011	U	mg/kg dry	2	0.0011	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
gamma-BHC [58-89-9]^	0.0014	U	mg/kg dry	2	0.0014	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Heptachlor [76-44-8]^	0.0015	U	mg/kg dry	2	0.0015	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Heptachlor epoxide [1024-57-3]^	0.0012	U	mg/kg dry	2	0.0012	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Isodrin [465-73-6]^	0.0015	U	mg/kg dry	2	0.0015	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	QL-02
Methoxychlor [72-43-5]^	0.0021	U	mg/kg dry	2	0.0021	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Mirex [2385-85-5]^	0.0026	U	mg/kg dry	2	0.0026	0.0041	5A06017	EPA 8081B	01/12/15 16:28	JJB	
Toxaphene [8001-35-2]^	0.041	U	mg/kg dry	2	0.041	0.079	5A06017	EPA 8081B	01/12/15 16:28	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.036*	*2*	*0.0400*	*90 %*	*20-137*	*5A06017*	*EPA 8081B*	*01/12/15 16:28*	*JJB*	
Decachlorobiphenyl	*0.049*	*2*	*0.0400*	*123 %*	*13-183*	*5A06017*	*EPA 8081B*	*01/12/15 16:28*	*JJB*	

Polychlorinated Biphenyls by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9]^	0.034	U	mg/kg dry	2	0.034	0.041	5A06018	EPA 8082A	01/12/15 16:28	JJB	
PCB-1221 [11104-28-2]^	0.034	U	mg/kg dry	2	0.034	0.041	5A06018	EPA 8082A	01/12/15 16:28	JJB	
PCB-1232 [11141-16-5]^	0.034	U	mg/kg dry	2	0.034	0.041	5A06018	EPA 8082A	01/12/15 16:28	JJB	
PCB-1248 [12672-29-6]^	0.015	U	mg/kg dry	2	0.015	0.041	5A06018	EPA 8082A	01/12/15 16:28	JJB	
PCB-1254 [11097-69-1]^	0.038	U	mg/kg dry	2	0.038	0.041	5A06018	EPA 8082A	01/12/15 16:28	JJB	
PCB-1260 [11096-82-5]^	0.026	U	mg/kg dry	2	0.026	0.041	5A06018	EPA 8082A	01/12/15 16:28	JJB	QM-11

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.022*	*2*	*0.0400*	*54 %*	*20-137*	*5A06018*	*EPA 8082A*	*01/12/15 16:28*	*JJB*	
Decachlorobiphenyl	*0.035*	*2*	*0.0400*	*87 %*	*13-183*	*5A06018*	*EPA 8082A*	*01/12/15 16:28*	*JJB*	

FL Petroleum Range Organics

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
TPH (C8-C40)^	4.1	U	mg/kg dry	1	4.1	6.8	5A07001	FL-PRO	01/07/15 20:32	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
n-Nonatriacontane	*4.2*	*1*	*3.97*	*106 %*	*41-129*	*5A07001*	*FL-PRO*	*01/07/15 20:32*	*JJB*	
o-Terphenyl	*2.0*	*1*	*1.99*	*101 %*	*45-135*	*5A07001*	*FL-PRO*	*01/07/15 20:32*	*JJB*	

ANALYTICAL RESULTS

Description: SB-109 8.5'	**Lab Sample ID:** A500010-01	**Received:** 01/06/15 08:30
Matrix: Soil	**Sampled:** 01/05/15 12:33	**Work Order:** A500010
Project: I-4 Level II	**Sampled By:** Jerry Governale	**% Solids:** 83.40

Metals by EPA 6000/7000 Series Methods

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6]^	0.00468	U	mg/kg dry	1	0.00468	0.0120	5A08012	EPA 7471B	01/09/15 07:18	JAY	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	2.19	U	mg/kg dry	4	2.19	3.07	5A07002	EPA 6010C	01/09/15 10:53	ACV	R-01
Barium [7440-39-3]^	**173**		mg/kg dry	4	0.197	3.07	5A07002	EPA 6010C	01/09/15 10:53	ACV	
Cadmium [7440-43-9]^	0.0553	U	mg/kg dry	4	0.0553	0.307	5A07002	EPA 6010C	01/09/15 10:53	ACV	R-01
Chromium [7440-47-3]^	**10.3**		mg/kg dry	4	0.191	3.07	5A07002	EPA 6010C	01/09/15 10:53	ACV	
Lead [7439-92-1]^	**11.8**		mg/kg dry	4	0.676	3.07	5A07002	EPA 6010C	01/09/15 10:53	ACV	
Selenium [7782-49-2]^	**2.29**	I	mg/kg dry	4	2.21	12.3	5A07002	EPA 6010C	01/09/15 10:53	ACV	R-01
Silver [7440-22-4]^	0.443	U	mg/kg dry	4	0.443	3.07	5A07002	EPA 6010C	01/09/15 10:53	ACV	R-01

ANALYTICAL RESULTS

Description: SB-107 1.5' | **Lab Sample ID:** A500010-02 | **Received:** 01/06/15 08:30

Matrix: Soil | **Sampled:** 01/05/15 12:45 | **Work Order:** A500010

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 96.39

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,1,1-Trichloroethane [71-55-6]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,1,2,2-Tetrachloroethane [79-34-5]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,1,2-Trichloroethane [79-00-5]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,1-Dichloroethane [75-34-3]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,1-Dichloroethene [75-35-4]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	QV-01
1,1-Dichloropropene [563-58-6]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2,3-Trichlorobenzene [87-61-6]^	0.0011	U	mg/kg dry	1	0.0011	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2,3-Trichloropropane [96-18-4]^	0.0003	U	mg/kg dry	1	0.0003	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2,4-Trichlorobenzene [120-82-1]^	0.0010	U	mg/kg dry	1	0.0010	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2,4-Trimethylbenzene [95-63-6]^	0.0008	U	mg/kg dry	1	0.0008	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2-Dibromo-3-chloropropane [96-12-8]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2-Dibromoethane [106-93-4]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2-Dichlorobenzene [95-50-1]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2-Dichloroethane [107-06-2]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,2-Dichloropropane [78-87-5]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,3,5-Trimethylbenzene [108-67-8]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,3-Dichlorobenzene [541-73-1]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
1,3-Dichloropropane [142-28-9]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	QV-01
1,4-Dichlorobenzene [106-46-7]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
2,2-Dichloropropane [594-20-7]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
2-Butanone [78-93-3]^	0.0021	U	mg/kg dry	1	0.0021	0.0059	5A08016	EPA 8260B	01/08/15 13:15	KKW	
2-Chloroethyl Vinyl Ether [110-75-8]^	0.0020	U	mg/kg dry	1	0.0020	0.0059	5A08016	EPA 8260B	01/08/15 13:15	KKW	
2-Chlorotoluene [95-49-8]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
2-Hexanone [591-78-6]^	0.0011	U	mg/kg dry	1	0.0011	0.0059	5A08016	EPA 8260B	01/08/15 13:15	KKW	QL-02, QV-01
4-Chlorotoluene [106-43-4]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
4-Isopropyltoluene [99-87-6]^	0.0009	U	mg/kg dry	1	0.0009	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
4-Methyl-2-pentanone [108-10-1]^	0.0017	U	mg/kg dry	1	0.0017	0.0059	5A08016	EPA 8260B	01/08/15 13:15	KKW	QL-02, QV-01
Acetone [67-64-1]^	**0.012**		mg/kg dry	1	0.0020	0.0059	5A08016	EPA 8260B	01/08/15 13:15	KKW	J-02, J-04, O-01
Benzene [71-43-2]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Bromobenzene [108-86-1]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Bromochloromethane [74-97-5]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Bromodichloromethane [75-27-4]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Bromoform [75-25-2]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Bromomethane [74-83-9]^	0.0011	U	mg/kg dry	1	0.0011	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	QV-01
Carbon disulfide [75-15-0]^	0.0025	U	mg/kg dry	1	0.0025	0.0059	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Carbon Tetrachloride [56-23-5]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Chlorobenzene [108-90-7]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Chloroethane [75-00-3]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	QL-02, QV-01
Chloroform [67-66-3]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Chloromethane [74-87-3]^	0.0008	U	mg/kg dry	1	0.0008	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	QV-01
cis-1,2-Dichloroethene [156-59-2]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
cis-1,3-Dichloropropene [10061-01-5]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Dibromochloromethane [124-48-1]^	0.0003	U	mg/kg dry	1	0.0003	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	

ANALYTICAL RESULTS

Description: SB-107 1.5' | **Lab Sample ID:** A500010-02 | **Received:** 01/06/15 08:30

Matrix: Soil | **Sampled:** 01/05/15 12:45 | **Work Order:** A500010

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 96.39

Volatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Dibromomethane [74-95-3]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Dichlorodifluoromethane [75-71-8]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Ethylbenzene [100-41-4]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Hexachlorobutadiene [87-68-3]^	0.0011	U	mg/kg dry	1	0.0011	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Isopropylbenzene [98-82-8]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
m,p-Xylenes [108-38-3/106-42-3]^	0.0012	U	mg/kg dry	1	0.0012	0.0024	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Methylene Chloride [75-09-2]^	**0.0040**	V	mg/kg dry	1	0.0008	0.0024	5A08016	EPA 8260B	01/08/15 13:15	KKW	J-01, O-01
Methyl-tert-Butyl Ether [1634-04-4]^	0.0003	U	mg/kg dry	1	0.0003	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Naphthalene [91-20-3]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
n-Butyl Benzene [104-51-8]^	0.0011	U	mg/kg dry	1	0.0011	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
n-Propyl Benzene [103-65-1]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
o-Xylene [95-47-6]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
sec-Butylbenzene [135-98-8]^	0.0008	U	mg/kg dry	1	0.0008	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Styrene [100-42-5]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
tert-Butylbenzene [98-06-6]^	0.0007	U	mg/kg dry	1	0.0007	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Tetrachloroethene [127-18-4]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Toluene [108-88-3]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
trans-1,2-Dichloroethene [156-60-5]^	0.0008	U	mg/kg dry	1	0.0008	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
trans-1,3-Dichloropropene [10061-02-6]^	0.0004	U	mg/kg dry	1	0.0004	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Trichloroethene [79-01-6]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Trichlorofluoromethane [75-69-4]^	0.0006	U	mg/kg dry	1	0.0006	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Vinyl chloride [75-01-4]^	0.0005	U	mg/kg dry	1	0.0005	0.0012	5A08016	EPA 8260B	01/08/15 13:15	KKW	
Xylenes (Total) [1330-20-7]^	0.0012	U	mg/kg dry	1	0.0012	0.0024	5A08016	EPA 8260B	01/08/15 13:15	KKW	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*49*	*1*	*50.0*	*98 %*	*71-126*	*5A08016*	*EPA 8260B*	*01/08/15 13:15*	*KKW*	
Dibromofluoromethane	*42*	*1*	*50.0*	*85 %*	*72-133*	*5A08016*	*EPA 8260B*	*01/08/15 13:15*	*KKW*	
Toluene-d8	*45*	*1*	*50.0*	*89 %*	*80-123*	*5A08016*	*EPA 8260B*	*01/08/15 13:15*	*KKW*	

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1,2,4-Trichlorobenzene [120-82-1]^	0.11	U	mg/kg dry	1	0.11	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
1,2-Dichlorobenzene [95-50-1]^	0.12	U	mg/kg dry	1	0.12	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
1,3-Dichlorobenzene [541-73-1]^	0.12	U	mg/kg dry	1	0.12	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
1,4-Dichlorobenzene [106-46-7]^	0.10	U	mg/kg dry	1	0.10	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
1-Methylnaphthalene [90-12-0]^	0.10	U	mg/kg dry	1	0.10	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2,4,5-Trichlorophenol [95-95-4]^	0.069	U	mg/kg dry	1	0.069	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2,4,6-Trichlorophenol [88-06-2]^	0.16	U	mg/kg dry	1	0.16	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2,4-Dichlorophenol [120-83-2]^	0.26	U	mg/kg dry	1	0.26	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2,4-Dimethylphenol [105-67-9]^	0.24	U	mg/kg dry	1	0.24	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2,4-Dinitrophenol [51-28-5]^	0.092	U	mg/kg dry	1	0.092	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2,4-Dinitrotoluene [121-14-2]^	0.17	U	mg/kg dry	1	0.17	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2,6-Dinitrotoluene [606-20-2]^	0.19	U	mg/kg dry	1	0.19	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2-Chloronaphthalene [91-58-7]^	0.10	U	mg/kg dry	1	0.10	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2-Chlorophenol [95-57-8]^	0.24	U	mg/kg dry	1	0.24	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2-Methyl-4,6-dinitrophenol [534-52-1]^	0.29	U	mg/kg dry	1	0.29	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2-Methylnaphthalene [91-57-6]^	0.12	U	mg/kg dry	1	0.12	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	

ANALYTICAL RESULTS

Description: SB-107 1.5' | **Lab Sample ID:** A500010-02 | **Received:** 01/06/15 08:30

Matrix: Soil | **Sampled:** 01/05/15 12:45 | **Work Order:** A500010

Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 96.39

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2-Methylphenol [95-48-7]^	0.11	U	mg/kg dry	1	0.11	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2-Nitroaniline [88-74-4]^	0.088	U	mg/kg dry	1	0.088	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
2-Nitrophenol [88-75-5]^	0.27	U	mg/kg dry	1	0.27	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
3 & 4-Methylphenol [108-39-4/106-44-5]^	0.26	U	mg/kg dry	1	0.26	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
3,3'-Dichlorobenzidine [91-94-1]^	0.22	U	mg/kg dry	1	0.22	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	QL-02
3-Nitroaniline [99-09-2]^	0.083	U	mg/kg dry	1	0.083	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
4-Bromophenyl-phenylether [101-55-3]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
4-Chloro-3-methylphenol [59-50-7]^	0.29	U	mg/kg dry	1	0.29	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
4-Chloroaniline [106-47-8]^	0.067	U	mg/kg dry	1	0.067	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
4-Chlorophenyl-phenylether [7005-72-3]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
4-Nitroaniline [100-01-6]^	0.27	U	mg/kg dry	1	0.27	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
4-Nitrophenol [100-02-7]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Acenaphthene [83-32-9]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Acenaphthylene [208-96-8]^	0.12	U	mg/kg dry	1	0.12	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Anthracene [120-12-7]^	0.16	U	mg/kg dry	1	0.16	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Benzidine [92-87-5]^	0.089	U	mg/kg dry	1	0.089	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	J-02
Benzo(a)anthracene [56-55-3]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Benzo(a)pyrene [50-32-8]^	0.081	U	mg/kg dry	1	0.081	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.11	U	mg/kg dry	1	0.11	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.17	U	mg/kg dry	1	0.17	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.11	U	mg/kg dry	1	0.11	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Benzoic acid [65-85-0]^	0.50	U	mg/kg dry	1	0.50	1.8	5A06007	EPA 8270D	01/12/15 18:52	jfi	J-05
Benzyl alcohol [100-51-6]^	0.17	U	mg/kg dry	1	0.17	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Bis(2-chloroethoxy)methane [111-91-1]^	0.16	U	mg/kg dry	1	0.16	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	QV-01
Bis(2-chloroethyl)ether [111-44-4]^	0.15	U	mg/kg dry	1	0.15	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Bis(2-chloroisopropyl)ether [108-60-1]^	0.10	U	mg/kg dry	1	0.10	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Bis(2-ethylhexyl)phthalate [117-81-7]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Butylbenzylphthalate [85-68-7]^	0.15	U	mg/kg dry	1	0.15	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Chrysene [218-01-9]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.15	U	mg/kg dry	1	0.15	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Dibenzofuran [132-64-9]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Diethylphthalate [84-66-2]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Dimethylphthalate [131-11-3]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Di-n-butylphthalate [84-74-2]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Di-n-octylphthalate [117-84-0]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Fluoranthene [206-44-0]^	0.11	U	mg/kg dry	1	0.11	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Fluorene [86-73-7]^	0.15	U	mg/kg dry	1	0.15	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Hexachlorobenzene [118-74-1]^	0.12	U	mg/kg dry	1	0.12	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Hexachlorobutadiene [87-68-3]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Hexachlorocyclopentadiene [77-47-4]^	0.16	U	mg/kg dry	1	0.16	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Hexachloroethane [67-72-1]^	0.10	U	mg/kg dry	1	0.10	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.15	U	mg/kg dry	1	0.15	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Isophorone [78-59-1]^	0.18	U	mg/kg dry	1	0.18	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Naphthalene [91-20-3]^	0.12	U	mg/kg dry	1	0.12	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Nitrobenzene [98-95-3]^	0.16	U	mg/kg dry	1	0.16	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
N-Nitrosodimethylamine [62-75-9]^	0.12	U	mg/kg dry	1	0.12	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
N-Nitroso-di-n-propylamine [621-64-7]^	0.16	U	mg/kg dry	1	0.16	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	

ANALYTICAL RESULTS

Description: SB-107 1.5' | **Lab Sample ID:** A500010-02 | **Received:** 01/06/15 08:30
Matrix: Soil | **Sampled:** 01/05/15 12:45 | **Work Order:** A500010
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 96.39

Semivolatile Organic Compounds by GCMS

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4]^	0.24	U	mg/kg dry	1	0.24	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Pentachlorophenol [87-86-5]^	0.22	U	mg/kg dry	1	0.22	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Phenanthrene [85-01-8]^	0.13	U	mg/kg dry	1	0.13	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Phenol [108-95-2]^	0.10	U	mg/kg dry	1	0.10	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Pyrene [129-00-0]^	0.11	U	mg/kg dry	1	0.11	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	
Pyridine [110-86-1]^	0.16	U	mg/kg dry	1	0.16	0.34	5A06007	EPA 8270D	01/12/15 18:52	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*1.3*	*1*	*1.72*	*73 %*	*23-137*	*5A06007*	*EPA 8270D*	*01/12/15 18:52*	*jfi*	
2-Fluorobiphenyl	*0.87*	*1*	*1.72*	*51 %*	*29-119*	*5A06007*	*EPA 8270D*	*01/12/15 18:52*	*jfi*	
2-Fluorophenol	*0.82*	*1*	*1.72*	*48 %*	*20-124*	*5A06007*	*EPA 8270D*	*01/12/15 18:52*	*jfi*	
Nitrobenzene-d5	*0.73*	*1*	*1.72*	*42 %*	*17-126*	*5A06007*	*EPA 8270D*	*01/12/15 18:52*	*jfi*	
Phenol-d5	*0.89*	*1*	*1.72*	*52 %*	*15-131*	*5A06007*	*EPA 8270D*	*01/12/15 18:52*	*jfi*	
Terphenyl-d14	*1.7*	*1*	*1.72*	*99 %*	*60-120*	*5A06007*	*EPA 8270D*	*01/12/15 18:52*	*jfi*	

Semivolatile Organic Compounds by GCMS SIM

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
1-Methylnaphthalene [90-12-0]^	0.020	U	mg/kg dry	1	0.020	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
2-Methylnaphthalene [91-57-6]^	0.019	U	mg/kg dry	1	0.019	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Acenaphthene [83-32-9]^	0.016	U	mg/kg dry	1	0.016	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Acenaphthylene [208-96-8]^	0.019	U	mg/kg dry	1	0.019	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Anthracene [120-12-7]^	0.015	U	mg/kg dry	1	0.015	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Benzo(a)anthracene [56-55-3]^	0.015	U	mg/kg dry	1	0.015	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Benzo(a)pyrene [50-32-8]^	0.016	U	mg/kg dry	1	0.016	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Benzo(b)fluoranthene [205-99-2]^	0.018	U	mg/kg dry	1	0.018	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Benzo(g,h,i)perylene [191-24-2]^	0.016	U	mg/kg dry	1	0.016	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Benzo(k)fluoranthene [207-08-9]^	0.020	U	mg/kg dry	1	0.020	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Chrysene [218-01-9]^	**0.012**	I	mg/kg dry	1	0.012	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Dibenzo(a,h)anthracene [53-70-3]^	0.017	U	mg/kg dry	1	0.017	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Fluoranthene [206-44-0]^	0.018	U	mg/kg dry	1	0.018	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Fluorene [86-73-7]^	0.018	U	mg/kg dry	1	0.018	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Indeno(1,2,3-cd)pyrene [193-39-5]^	0.016	U	mg/kg dry	1	0.016	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Naphthalene [91-20-3]^	0.019	U	mg/kg dry	1	0.019	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Phenanthrene [85-01-8]^	0.016	U	mg/kg dry	1	0.016	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	
Pyrene [129-00-0]^	0.017	U	mg/kg dry	1	0.017	0.036	5A06004	EPA 8270D	01/15/15 14:19	jfi	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
p-Terphenyl	*1.9*	*1*	*2.03*	*95 %*	*50-150*	*5A06004*	*EPA 8270D*	*01/15/15 14:19*	*jfi*	

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8]^	0.0014	U	mg/kg dry	2	0.0014	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
4,4'-DDE [72-55-9]^	0.0013	U	mg/kg dry	2	0.0013	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	QL-02
4,4'-DDT [50-29-3]^	0.0014	U	mg/kg dry	2	0.0014	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Aldrin [309-00-2]^	0.0011	U	mg/kg dry	2	0.0011	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
alpha-BHC [319-84-6]^	0.0012	U	mg/kg dry	2	0.0012	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	

ANALYTICAL RESULTS

Description: SB-107 1.5' | **Lab Sample ID:** A500010-02 | **Received:** 01/06/15 08:30
Matrix: Soil | **Sampled:** 01/05/15 12:45 | **Work Order:** A500010
Project: I-4 Level II | **Sampled By:** Jerry Governale | **% Solids:** 96.39

Organochlorine Pesticides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
beta-BHC [319-85-7]^	0.0021	U	mg/kg dry	2	0.0021	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Chlordane (tech) [12789-03-6]^	0.017	U	mg/kg dry	2	0.017	0.068	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Chlordane-alpha [5103-71-9]^	0.00093	U	mg/kg dry	2	0.00093	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Chlordane-gamma [5566-34-7]^	0.00093	U	mg/kg dry	2	0.00093	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
delta-BHC [319-86-8]^	0.0010	U	mg/kg dry	2	0.0010	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Dieldrin [60-57-1]^	0.00093	U	mg/kg dry	2	0.00093	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Endosulfan I [959-98-8]^	0.00081	U	mg/kg dry	2	0.00081	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Endosulfan II [33213-65-9]^	0.0010	U	mg/kg dry	2	0.0010	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Endosulfan sulfate [1031-07-8]^	0.0010	U	mg/kg dry	2	0.0010	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Endrin [72-20-8]^	0.0015	U	mg/kg dry	2	0.0015	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Endrin aldehyde [7421-93-4]^	0.0017	U	mg/kg dry	2	0.0017	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Endrin ketone [53494-70-5]^	0.00098	U	mg/kg dry	2	0.00098	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
gamma-BHC [58-89-9]^	0.0012	U	mg/kg dry	2	0.0012	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Heptachlor [76-44-8]^	0.0013	U	mg/kg dry	2	0.0013	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Heptachlor epoxide [1024-57-3]^	0.0010	U	mg/kg dry	2	0.0010	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Isodrin [465-73-6]^	0.0013	U	mg/kg dry	2	0.0013	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	QL-02
Methoxychlor [72-43-5]^	0.0018	U	mg/kg dry	2	0.0018	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Mirex [2385-85-5]^	0.0023	U	mg/kg dry	2	0.0023	0.0035	5A06017	EPA 8081B	01/12/15 16:53	JJB	
Toxaphene [8001-35-2]^	0.035	U	mg/kg dry	2	0.035	0.068	5A06017	EPA 8081B	01/12/15 16:53	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.037*	*2*	*0.0345*	*106 %*	*20-137*	*5A06017*	*EPA 8081B*	*01/12/15 16:53*	*JJB*	
Decachlorobiphenyl	*0.049*	*2*	*0.0345*	*141 %*	*13-183*	*5A06017*	*EPA 8081B*	*01/12/15 16:53*	*JJB*	

Polychlorinated Biphenyls by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9]^	0.029	U	mg/kg dry	2	0.029	0.035	5A06018	EPA 8082A	01/12/15 16:53	JJB	
PCB-1221 [11104-28-2]^	0.029	U	mg/kg dry	2	0.029	0.035	5A06018	EPA 8082A	01/12/15 16:53	JJB	
PCB-1232 [11141-16-5]^	0.029	U	mg/kg dry	2	0.029	0.035	5A06018	EPA 8082A	01/12/15 16:53	JJB	
PCB-1248 [12672-29-6]^	0.013	U	mg/kg dry	2	0.013	0.035	5A06018	EPA 8082A	01/12/15 16:53	JJB	
PCB-1254 [11097-69-1]^	0.033	U	mg/kg dry	2	0.033	0.035	5A06018	EPA 8082A	01/12/15 16:53	JJB	
PCB-1260 [11096-82-5]^	0.023	U	mg/kg dry	2	0.023	0.035	5A06018	EPA 8082A	01/12/15 16:53	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.030*	*2*	*0.0345*	*86 %*	*20-137*	*5A06018*	*EPA 8082A*	*01/12/15 16:53*	*JJB*	
Decachlorobiphenyl	*0.041*	*2*	*0.0345*	*120 %*	*13-183*	*5A06018*	*EPA 8082A*	*01/12/15 16:53*	*JJB*	

FL Petroleum Range Organics

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
TPH (C8-C40)^	3.5	U	mg/kg dry	1	3.5	5.9	5A07001	FL-PRO	01/07/15 21:04	JJB	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
n-Nonatriacontane	*3.7*	*1*	*3.46*	*108 %*	*41-129*	*5A07001*	*FL-PRO*	*01/07/15 21:04*	*JJB*	
o-Terphenyl	*1.6*	*1*	*1.73*	*94 %*	*45-135*	*5A07001*	*FL-PRO*	*01/07/15 21:04*	*JJB*	

ANALYTICAL RESULTS

Description: SB-107 1.5'	**Lab Sample ID:** A500010-02	**Received:** 01/06/15 08:30
Matrix: Soil	**Sampled:** 01/05/15 12:45	**Work Order:** A500010
Project: I-4 Level II	**Sampled By:** Jerry Governale	**% Solids:** 96.39

Metals by EPA 6000/7000 Series Methods

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6]^	0.00368	U	mg/kg dry	1	0.00368	0.00943	5A08012	EPA 7471B	01/09/15 07:35	JAY	

Metals by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [NELAC E82277]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.480	U	mg/kg dry	1	0.480	0.674	5A07002	EPA 6010C	01/08/15 12:45	ACV	
Barium [7440-39-3]^	**4.44**		mg/kg dry	1	0.0431	0.674	5A07002	EPA 6010C	01/08/15 12:45	ACV	
Cadmium [7440-43-9]^	0.0121	U	mg/kg dry	1	0.0121	0.0674	5A07002	EPA 6010C	01/08/15 12:45	ACV	
Chromium [7440-47-3]^	**0.426**	I	mg/kg dry	1	0.0418	0.674	5A07002	EPA 6010C	01/08/15 12:45	ACV	
Lead [7439-92-1]^	**0.293**	I	mg/kg dry	1	0.148	0.674	5A07002	EPA 6010C	01/08/15 12:45	ACV	
Selenium [7782-49-2]^	0.485	U	mg/kg dry	1	0.485	2.69	5A07002	EPA 6010C	01/08/15 12:45	ACV	
Silver [7440-22-4]^	0.0970	U	mg/kg dry	1	0.0970	0.674	5A07002	EPA 6010C	01/08/15 12:45	ACV	

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08016 - EPA 5030B_MS

Blank (5A08016-BLK1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 11:24

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.0004	U	0.0010	mg/kg wet							
1,1,1-Trichloroethane	0.0004	U	0.0010	mg/kg wet							
1,1,2,2-Tetrachloroethane	0.0003	U	0.0010	mg/kg wet							
1,1,2-Trichloroethane	0.0006	U	0.0010	mg/kg wet							
1,1-Dichloroethane	0.0006	U	0.0010	mg/kg wet							
1,1-Dichloroethene	0.0006	U	0.0010	mg/kg wet							
1,1-Dichloropropene	0.0005	U	0.0010	mg/kg wet							
1,2,3-Trichlorobenzene	0.0009	U	0.0010	mg/kg wet							
1,2,3-Trichloropropane	0.0003	U	0.0010	mg/kg wet							
1,2,4-Trichlorobenzene	0.0008	U	0.0010	mg/kg wet							
1,2,4-Trimethylbenzene	0.0007	U	0.0010	mg/kg wet							
1,2-Dibromo-3-chloropropane	0.0006	U	0.0010	mg/kg wet							
1,2-Dibromoethane	0.0003	U	0.0010	mg/kg wet							
1,2-Dichlorobenzene	0.0004	U	0.0010	mg/kg wet							
1,2-Dichloroethane	0.0003	U	0.0010	mg/kg wet							
1,2-Dichloropropane	0.0006	U	0.0010	mg/kg wet							
1,3,5-Trimethylbenzene	0.0006	U	0.0010	mg/kg wet							
1,3-Dichlorobenzene	0.0005	U	0.0010	mg/kg wet							
1,3-Dichloropropane	0.0004	U	0.0010	mg/kg wet							
1,4-Dichlorobenzene	0.0004	U	0.0010	mg/kg wet							
2,2-Dichloropropane	0.0004	U	0.0010	mg/kg wet							
2-Butanone	0.0018	U	0.0050	mg/kg wet							
2-Chloroethyl Vinyl Ether	0.0017	U	0.0050	mg/kg wet							
2-Chlorotoluene	0.0005	U	0.0010	mg/kg wet							
2-Hexanone	0.0009	U	0.0050	mg/kg wet							
4-Chlorotoluene	0.0006	U	0.0010	mg/kg wet							
4-Isopropyltoluene	0.0008	U	0.0010	mg/kg wet							
4-Methyl-2-pentanone	0.0014	U	0.0050	mg/kg wet							
Acetone	0.0017	U	0.0050	mg/kg wet							

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08016 - EPA 5030B_MS - Continued

Blank (5A08016-BLK1) Continued Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 11:24

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzene	0.0004	U	0.0010	mg/kg wet							
Bromobenzene	0.0004	U	0.0010	mg/kg wet							
Bromochloromethane	0.0004	U	0.0010	mg/kg wet							
Bromodichloromethane	0.0004	U	0.0010	mg/kg wet							
Bromoform	0.0003	U	0.0010	mg/kg wet							
Bromomethane	0.0009	U	0.0010	mg/kg wet							
Carbon disulfide	0.0021	U	0.0050	mg/kg wet							
Carbon Tetrachloride	0.0006	U	0.0010	mg/kg wet							
Chlorobenzene	0.0005	U	0.0010	mg/kg wet							
Chloroethane	0.0005	U	0.0010	mg/kg wet							
Chloroform	0.0004	U	0.0010	mg/kg wet							
Chloromethane	0.0006	U	0.0010	mg/kg wet							
cis-1,2-Dichloroethene	0.0005	U	0.0010	mg/kg wet							
cis-1,3-Dichloropropene	0.0003	U	0.0010	mg/kg wet							
Dibromochloromethane	0.0003	U	0.0010	mg/kg wet							
Dibromomethane	0.0004	U	0.0010	mg/kg wet							
Dichlorodifluoromethane	0.0006	U	0.0010	mg/kg wet							
Ethylbenzene	0.0006	U	0.0010	mg/kg wet							
Hexachlorobutadiene	0.0009	U	0.0010	mg/kg wet							
Isopropylbenzene	0.0005	U	0.0010	mg/kg wet							
m,p-Xylenes	0.0010	U	0.0020	mg/kg wet							
Methylene Chloride	**0.0034**		0.0020	mg/kg wet							J-01, O-01
Methyl-tert-Butyl Ether	0.0003	U	0.0010	mg/kg wet							
Naphthalene	0.0006	U	0.0010	mg/kg wet							
n-Butyl Benzene	0.0009	U	0.0010	mg/kg wet							
n-Propyl Benzene	0.0006	U	0.0010	mg/kg wet							
o-Xylene	0.0005	U	0.0010	mg/kg wet							
sec-Butylbenzene	0.0006	U	0.0010	mg/kg wet							
Styrene	0.0004	U	0.0010	mg/kg wet							

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08016 - EPA 5030B_MS - Continued

Blank (5A08016-BLK1) Continued Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 11:24

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
tert-Butylbenzene	0.0006	U	0.0010	mg/kg wet							
Tetrachloroethene	0.0005	U	0.0010	mg/kg wet							
Toluene	0.0005	U	0.0010	mg/kg wet							
trans-1,2-Dichloroethene	0.0007	U	0.0010	mg/kg wet							
trans-1,3-Dichloropropene	0.0003	U	0.0010	mg/kg wet							
Trichloroethene	0.0005	U	0.0010	mg/kg wet							
Trichlorofluoromethane	0.0005	U	0.0010	mg/kg wet							
Vinyl chloride	0.0004	U	0.0010	mg/kg wet							
Xylenes (Total)	0.0010	U	0.0020	mg/kg wet							
4-Bromofluorobenzene	*51*			*ug/L*	*50.0*		*103*	*71-126*			
Dibromofluoromethane	*43*			*ug/L*	*50.0*		*87*	*72-133*			
Toluene-d8	*45*			*ug/L*	*50.0*		*89*	*80-123*			

LCS (5A08016-BS1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 10:01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.023		0.0010	mg/kg wet	0.0200		115	61-124			
Benzene	0.018		0.0010	mg/kg wet	0.0200		88	59-133			
Chlorobenzene	0.018		0.0010	mg/kg wet	0.0200		90	69-121			
Toluene	0.019		0.0010	mg/kg wet	0.0200		95	66-119			
Trichloroethene	0.019		0.0010	mg/kg wet	0.0200		94	71-122			
4-Bromofluorobenzene	*48*			*ug/L*	*50.0*		*96*	*71-126*			
Dibromofluoromethane	*48*			*ug/L*	*50.0*		*96*	*72-133*			
Toluene-d8	*46*			*ug/L*	*50.0*		*92*	*80-123*			

LCS Dup (5A08016-BSD1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 10:28

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.023		0.0010	mg/kg wet	0.0200		113	61-124	2	23	
Benzene	0.016		0.0010	mg/kg wet	0.0200		78	59-133	11	19	
Chlorobenzene	0.018		0.0010	mg/kg wet	0.0200		92	69-121	1	18	
Toluene	0.019		0.0010	mg/kg wet	0.0200		93	66-119	2	21	
Trichloroethene	0.016		0.0010	mg/kg wet	0.0200		82	71-122	13	26	
4-Bromofluorobenzene	*44*			*ug/L*	*50.0*		*88*	*71-126*			
Dibromofluoromethane	*42*			*ug/L*	*50.0*		*84*	*72-133*			

QUALITY CONTROL DATA

Volatile Organic Compounds by GCMS - Quality Control

Batch 5A08016 - EPA 5030B_MS - Continued

LCS Dup (5A08016-BSD1) Continued Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 10:28

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Toluene-d8	*42*			*ug/L*	*50.0*		*83*	*80-123*			

Matrix Spike (5A08016-MS1) Prepared: 01/08/2015 00:00 Analyzed: 01/08/2015 14:38

Source: A500011-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.021		0.0011	mg/kg dry	0.0210	0.0007 U	98	61-124			
Benzene	0.016		0.0011	mg/kg dry	0.0210	0.0004 U	74	59-133			
Chlorobenzene	0.018		0.0011	mg/kg dry	0.0210	0.0005 U	86	69-121			
Toluene	0.020		0.0011	mg/kg dry	0.0210	0.0005 U	97	66-119			
Trichloroethene	0.018		0.0011	mg/kg dry	0.0210	0.0005 U	88	71-122			
4-Bromofluorobenzene	*41*			*ug/L*	*50.0*		*83*	*71-126*			
Dibromofluoromethane	*36*			*ug/L*	*50.0*		*73*	*72-133*			
Toluene-d8	*38*			*ug/L*	*50.0*		*77*	*80-123*			*QS-03*

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS

Blank (5A06007-BLK1) Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 15:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	0.11	U	0.33	mg/kg wet							
1,2-Dichlorobenzene	0.12	U	0.33	mg/kg wet							
1,3-Dichlorobenzene	0.12	U	0.33	mg/kg wet							
1,4-Dichlorobenzene	0.10	U	0.33	mg/kg wet							
1-Methylnaphthalene	0.096	U	0.33	mg/kg wet							
2,4,5-Trichlorophenol	0.067	U	0.33	mg/kg wet							
2,4,6-Trichlorophenol	0.15	U	0.33	mg/kg wet							
2,4-Dichlorophenol	0.25	U	0.33	mg/kg wet							
2,4-Dimethylphenol	0.23	U	0.33	mg/kg wet							
2,4-Dinitrophenol	0.089	U	0.33	mg/kg wet							
2,4-Dinitrotoluene	0.16	U	0.33	mg/kg wet							
2,6-Dinitrotoluene	0.18	U	0.33	mg/kg wet							
2-Chloronaphthalene	0.098	U	0.33	mg/kg wet							
2-Chlorophenol	0.23	U	0.33	mg/kg wet							
2-Methyl-4,6-dinitrophenol	0.28	U	0.33	mg/kg wet							
2-Methylnaphthalene	0.12	U	0.33	mg/kg wet							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

Blank (5A06007-BLK1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 15:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Methylphenol	0.11	U	0.33	mg/kg wet							
2-Nitroaniline	0.085	U	0.33	mg/kg wet							
2-Nitrophenol	0.26	U	0.33	mg/kg wet							
3 & 4-Methylphenol	0.25	U	0.33	mg/kg wet							
3,3'-Dichlorobenzidine	0.21	U	0.33	mg/kg wet							
3-Nitroaniline	0.080	U	0.33	mg/kg wet							
4-Bromophenyl-phenylether	0.13	U	0.33	mg/kg wet							
4-Chloro-3-methylphenol	0.28	U	0.33	mg/kg wet							
4-Chloroaniline	0.065	U	0.33	mg/kg wet							
4-Chlorophenyl-phenylether	0.13	U	0.33	mg/kg wet							
4-Nitroaniline	0.26	U	0.33	mg/kg wet							
4-Nitrophenol	0.13	U	0.33	mg/kg wet							
Acenaphthene	0.13	U	0.33	mg/kg wet							
Acenaphthylene	0.12	U	0.33	mg/kg wet							
Anthracene	0.15	U	0.33	mg/kg wet							
Benzidine	0.086	U	0.33	mg/kg wet							
Benzo(a)anthracene	0.13	U	0.33	mg/kg wet							
Benzo(a)pyrene	0.078	U	0.33	mg/kg wet							
Benzo(b)fluoranthene	0.11	U	0.33	mg/kg wet							
Benzo(g,h,i)perylene	0.16	U	0.33	mg/kg wet							
Benzo(k)fluoranthene	0.11	U	0.33	mg/kg wet							
Benzoic acid	0.48	U	1.7	mg/kg wet							
Benzyl alcohol	0.16	U	0.33	mg/kg wet							
Bis(2-chloroethoxy)methane	0.15	U	0.33	mg/kg wet							
Bis(2-chloroethyl)ether	0.14	U	0.33	mg/kg wet							
Bis(2-chloroisopropyl)ether	0.099	U	0.33	mg/kg wet							
Bis(2-ethylhexyl)phthalate	0.13	U	0.33	mg/kg wet							
Butylbenzylphthalate	0.14	U	0.33	mg/kg wet							
Chrysene	0.13	U	0.33	mg/kg wet							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

Blank (5A06007-BLK1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 15:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Dibenzo(a,h)anthracene	0.14	U	0.33	mg/kg wet							
Dibenzofuran	0.13	U	0.33	mg/kg wet							
Diethylphthalate	0.13	U	0.33	mg/kg wet							
Dimethylphthalate	0.13	U	0.33	mg/kg wet							
Di-n-butylphthalate	0.13	U	0.33	mg/kg wet							
Di-n-octylphthalate	0.13	U	0.33	mg/kg wet							
Fluoranthene	0.11	U	0.33	mg/kg wet							
Fluorene	0.14	U	0.33	mg/kg wet							
Hexachlorobenzene	0.12	U	0.33	mg/kg wet							
Hexachlorobutadiene	0.13	U	0.33	mg/kg wet							
Hexachlorocyclopentadiene	0.15	U	0.33	mg/kg wet							
Hexachloroethane	0.10	U	0.33	mg/kg wet							
Indeno(1,2,3-cd)pyrene	0.14	U	0.33	mg/kg wet							
Isophorone	0.17	U	0.33	mg/kg wet							
Naphthalene	0.12	U	0.33	mg/kg wet							
Nitrobenzene	0.15	U	0.33	mg/kg wet							
N-Nitrosodimethylamine	0.12	U	0.33	mg/kg wet							
N-Nitroso-di-n-propylamine	0.15	U	0.33	mg/kg wet							
N-nitrosodiphenylamine/Diphenylamine	0.23	U	0.33	mg/kg wet							
Pentachlorophenol	0.21	U	0.33	mg/kg wet							
Phenanthrene	0.13	U	0.33	mg/kg wet							
Phenol	0.099	U	0.33	mg/kg wet							
Pyrene	0.11	U	0.33	mg/kg wet							
Pyridine	0.15	U	0.33	mg/kg wet							
2,4,6-Tribromophenol	*1.4*			*mg/kg wet*	*1.67*		*86*	*23-137*			
2-Fluorobiphenyl	*1.6*			*mg/kg wet*	*1.67*		*94*	*29-119*			
2-Fluorophenol	*1.5*			*mg/kg wet*	*1.67*		*92*	*20-124*			
Nitrobenzene-d5	*1.4*			*mg/kg wet*	*1.67*		*85*	*17-126*			
Phenol-d5	*1.6*			*mg/kg wet*	*1.67*		*93*	*15-131*			

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

Blank (5A06007-BLK1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 15:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Terphenyl-d14	*2.0*			*mg/kg wet*	*1.67*		*122*	*60-120*			*QS-03*

LCS (5A06007-BS1) Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 16:04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.5		0.33	mg/kg wet	1.67		87	36-119			
1,4-Dichlorobenzene	1.4		0.33	mg/kg wet	1.67		87	32-116			
2,4-Dinitrotoluene	1.8		0.33	mg/kg wet	1.67		110	54-125			
2-Chlorophenol	1.5		0.33	mg/kg wet	1.67		91	50-105			
4-Chloro-3-methylphenol	1.6		0.33	mg/kg wet	1.67		98	55-106			
4-Nitrophenol	1.8		0.33	mg/kg wet	1.67		108	30-124			
Acenaphthene	1.5		0.33	mg/kg wet	1.67		93	49-111			
N-Nitroso-di-n-propylamine	1.8		0.33	mg/kg wet	1.67		106	52-126			
Pentachlorophenol	1.4		0.33	mg/kg wet	1.67		84	10-101			
Phenol	1.5		0.33	mg/kg wet	1.67		90	28-121			
Pyrene	1.7		0.33	mg/kg wet	1.67		101	66-115			
2,4,6-Tribromophenol	*1.6*			*mg/kg wet*	*1.67*		*99*	*23-137*			
2-Fluorobiphenyl	*1.4*			*mg/kg wet*	*1.67*		*87*	*29-119*			
2-Fluorophenol	*1.5*			*mg/kg wet*	*1.67*		*89*	*20-124*			
Nitrobenzene-d5	*1.5*			*mg/kg wet*	*1.67*		*88*	*17-126*			
Phenol-d5	*1.5*			*mg/kg wet*	*1.67*		*89*	*15-131*			
Terphenyl-d14	*1.7*			*mg/kg wet*	*1.67*		*103*	*60-120*			

Matrix Spike (5A06007-MS1) Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 16:32

Source: A500011-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.4		0.35	mg/kg dry	1.75	0.12 U	79	36-119			
1,4-Dichlorobenzene	1.2		0.35	mg/kg dry	1.75	0.11 U	71	32-116			
2,4-Dinitrotoluene	1.8		0.35	mg/kg dry	1.75	0.17 U	105	54-125			
2-Chlorophenol	1.6		0.35	mg/kg dry	1.75	0.24 U	91	50-105			
4-Chloro-3-methylphenol	1.8		0.35	mg/kg dry	1.75	0.29 U	100	55-106			
4-Nitrophenol	1.7		0.35	mg/kg dry	1.75	0.14 U	98	30-124			
Acenaphthene	1.6		0.35	mg/kg dry	1.75	0.14 U	94	49-111			
N-Nitroso-di-n-propylamine	1.9		0.35	mg/kg dry	1.75	0.16 U	111	52-126			
Pentachlorophenol	1.8		0.35	mg/kg dry	1.75	0.22 U	100	10-101			
Phenol	1.6		0.35	mg/kg dry	1.75	0.10 U	92	28-121			

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 5A06007 - EPA 3550C_MS - Continued

Matrix Spike (5A06007-MS1) Continued Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 16:32

Source: A500011-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Pyrene	1.7		0.35	mg/kg dry	1.75	0.12 U	100	66-115			
2,4,6-Tribromophenol	*1.7*			*mg/kg dry*	*1.75*		*96*	*23-137*			
2-Fluorobiphenyl	*1.5*			*mg/kg dry*	*1.75*		*86*	*29-119*			
2-Fluorophenol	*1.5*			*mg/kg dry*	*1.75*		*86*	*20-124*			
Nitrobenzene-d5	*1.5*			*mg/kg dry*	*1.75*		*84*	*17-126*			
Phenol-d5	*1.5*			*mg/kg dry*	*1.75*		*88*	*15-131*			
Terphenyl-d14	*1.7*			*mg/kg dry*	*1.75*		*99*	*60-120*			

Matrix Spike Dup (5A06007-MSD1) Prepared: 01/06/2015 10:52 Analyzed: 01/12/2015 17:00

Source: A500011-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.4		0.35	mg/kg dry	1.76	0.12 U	79	36-119	0.5	32	
1,4-Dichlorobenzene	1.3		0.35	mg/kg dry	1.76	0.11 U	73	32-116	2	34	
2,4-Dinitrotoluene	1.8		0.35	mg/kg dry	1.76	0.17 U	105	54-125	0.6	23	
2-Chlorophenol	1.6		0.35	mg/kg dry	1.76	0.24 U	93	50-105	2	27	
4-Chloro-3-methylphenol	1.8		0.35	mg/kg dry	1.76	0.29 U	101	55-106	1	28	
4-Nitrophenol	1.8		0.35	mg/kg dry	1.76	0.14 U	100	30-124	2	35	
Acenaphthene	1.6		0.35	mg/kg dry	1.76	0.14 U	93	49-111	0.7	27	
N-Nitroso-di-n-propylamine	2.0		0.35	mg/kg dry	1.76	0.16 U	112	52-126	1	24	
Pentachlorophenol	1.7		0.35	mg/kg dry	1.76	0.22 U	99	10-101	0.4	26	
Phenol	1.6		0.35	mg/kg dry	1.76	0.10 U	93	28-121	1	32	
Pyrene	1.7		0.35	mg/kg dry	1.76	0.12 U	96	66-115	3	28	
2,4,6-Tribromophenol	*1.7*			*mg/kg dry*	*1.76*		*96*	*23-137*			
2-Fluorobiphenyl	*1.4*			*mg/kg dry*	*1.76*		*81*	*29-119*			
2-Fluorophenol	*1.5*			*mg/kg dry*	*1.76*		*87*	*20-124*			
Nitrobenzene-d5	*1.4*			*mg/kg dry*	*1.76*		*81*	*17-126*			
Phenol-d5	*1.6*			*mg/kg dry*	*1.76*		*89*	*15-131*			
Terphenyl-d14	*1.7*			*mg/kg dry*	*1.76*		*99*	*60-120*			

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 5A06004 - EPA 3550C_MS

Blank (5A06004-BLK1) Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 13:52

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	0.019	U	0.035	mg/kg wet							
2-Methylnaphthalene	0.018	U	0.035	mg/kg wet							
Acenaphthene	0.015	U	0.035	mg/kg wet							
Acenaphthylene	0.018	U	0.035	mg/kg wet							
Anthracene	0.014	U	0.035	mg/kg wet							
Benzo(a)anthracene	0.014	U	0.035	mg/kg wet							
Benzo(a)pyrene	0.015	U	0.035	mg/kg wet							

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 5A06004 - EPA 3550C_MS - Continued

Blank (5A06004-BLK1) Continued Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 13:52

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzo(b)fluoranthene	0.017	U	0.035	mg/kg wet							
Benzo(g,h,i)perylene	0.015	U	0.035	mg/kg wet							
Benzo(k)fluoranthene	0.019	U	0.035	mg/kg wet							
Chrysene	0.012	U	0.035	mg/kg wet							
Dibenzo(a,h)anthracene	0.016	U	0.035	mg/kg wet							
Fluoranthene	0.017	U	0.035	mg/kg wet							
Fluorene	0.017	U	0.035	mg/kg wet							
Indeno(1,2,3-cd)pyrene	0.015	U	0.035	mg/kg wet							
Naphthalene	0.018	U	0.035	mg/kg wet							
Phenanthrene	0.015	U	0.035	mg/kg wet							
Pyrene	0.016	U	0.035	mg/kg wet							
p-Terphenyl	*1.7*			*mg/kg wet*	*2.00*		*86*	*50-150*			

LCS (5A06004-BS1) Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 14:37

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	1.3		0.035	mg/kg wet	2.00		64	39-106			
Benzo(a)pyrene	1.3		0.035	mg/kg wet	2.00		64	60-118			
Benzo(g,h,i)perylene	1.6		0.035	mg/kg wet	2.00		79	50-117			
Naphthalene	1.3		0.035	mg/kg wet	2.00		66	34-95			
p-Terphenyl	*1.9*			*mg/kg wet*	*2.00*		*93*	*50-150*			

Matrix Spike (5A06004-MS1) Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 14:59

Source: A407585-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	1.4		0.042	mg/kg dry	2.38	0.018 U	59	39-106			
Benzo(a)pyrene	1.7		0.042	mg/kg dry	2.38	0.018 U	71	60-118			
Benzo(g,h,i)perylene	1.7		0.042	mg/kg dry	2.38	0.018 U	72	50-117			
Naphthalene	1.3		0.042	mg/kg dry	2.38	0.021 U	55	34-95			
p-Terphenyl	*2.0*			*mg/kg dry*	*2.38*		*85*	*50-150*			

Matrix Spike Dup (5A06004-MSD1) Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 15:20

Source: A407585-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acenaphthene	1.5		0.042	mg/kg dry	2.36	0.018 U	62	39-106	3	30	
Benzo(a)pyrene	1.7		0.042	mg/kg dry	2.36	0.018 U	74	60-118	4	30	

QUALITY CONTROL DATA

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 5A06004 - EPA 3550C_MS - Continued

Matrix Spike Dup (5A06004-MSD1) Continued Prepared: 01/06/2015 09:24 Analyzed: 01/08/2015 15:20

Source: A407585-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Benzo(g,h,i)perylene	1.6		0.042	mg/kg dry	2.36	0.018 U	69	50-117	4	30	
Naphthalene	1.3		0.042	mg/kg dry	2.36	0.021 U	56	34-95	1	30	
p-Terphenyl	*2.2*			*mg/kg dry*	*2.36*		*93*	*50-150*			

Organochlorine Pesticides by GC - Quality Control

Batch 5A06017 - EPA 3550C

Blank (5A06017-BLK1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:45

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.00066	U	0.0017	mg/kg wet							
4,4'-DDE	0.00065	U	0.0017	mg/kg wet							
4,4'-DDT	0.00066	U	0.0017	mg/kg wet							
Aldrin	0.00051	U	0.0017	mg/kg wet							
alpha-BHC	0.00056	U	0.0017	mg/kg wet							
beta-BHC	0.0010	U	0.0017	mg/kg wet							
Chlordane (tech)	0.0084	U	0.033	mg/kg wet							
Chlordane-alpha	0.00045	U	0.0017	mg/kg wet							
Chlordane-gamma	0.00045	U	0.0017	mg/kg wet							
delta-BHC	0.00050	U	0.0017	mg/kg wet							
Dieldrin	0.00045	U	0.0017	mg/kg wet							
Endosulfan I	0.00039	U	0.0017	mg/kg wet							
Endosulfan II	0.00048	U	0.0017	mg/kg wet							
Endosulfan sulfate	0.00049	U	0.0017	mg/kg wet							
Endrin	0.00074	U	0.0017	mg/kg wet							
Endrin aldehyde	0.00083	U	0.0017	mg/kg wet							
Endrin ketone	0.00047	U	0.0017	mg/kg wet							
gamma-BHC	0.00060	U	0.0017	mg/kg wet							
Heptachlor	0.00062	U	0.0017	mg/kg wet							
Heptachlor epoxide	0.00048	U	0.0017	mg/kg wet							
Isodrin	0.00062	U	0.0017	mg/kg wet							
Methoxychlor	0.00086	U	0.0017	mg/kg wet							
Mirex	0.0011	U	0.0017	mg/kg wet							

QUALITY CONTROL DATA

Organochlorine Pesticides by GC - Quality Control

Batch 5A06017 - EPA 3550C - Continued

Blank (5A06017-BLK1) Continued Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:45

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Toxaphene	0.017	U	0.033	mg/kg wet							
2,4,5,6-TCMX	*0.038*			*mg/kg wet*	*0.0333*		*114*	*20-137*			
Decachlorobiphenyl	*0.047*			*mg/kg wet*	*0.0333*		*140*	*13-183*			

LCS (5A06017-BS1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:56

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.040		0.0017	mg/kg wet	0.0333		120	37-125			
Dieldrin	0.040		0.0017	mg/kg wet	0.0333		120	46-127			
Endrin	0.039		0.0017	mg/kg wet	0.0333		116	28-143			
2,4,5,6-TCMX	*0.035*			*mg/kg wet*	*0.0333*		*106*	*20-137*			
Decachlorobiphenyl	*0.043*			*mg/kg wet*	*0.0333*		*129*	*13-183*			

Matrix Spike (5A06017-MS1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 15:08

Source: A500003-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.030		0.0035	mg/kg dry	0.0346	0.0014 U	87	37-125			
Dieldrin	0.036		0.0035	mg/kg dry	0.0346	0.00094 U	103	46-127			
Endrin	0.036		0.0035	mg/kg dry	0.0346	0.0015 U	104	28-143			
2,4,5,6-TCMX	*0.031*			*mg/kg dry*	*0.0346*		*89*	*20-137*			
Decachlorobiphenyl	*0.039*			*mg/kg dry*	*0.0346*		*113*	*13-183*			

Matrix Spike Dup (5A06017-MSD1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 15:19

Source: A500003-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.033		0.0035	mg/kg dry	0.0347	0.0014 U	96	37-125	10	24	
Dieldrin	0.039		0.0035	mg/kg dry	0.0347	0.00094 U	111	46-127	7	21	
Endrin	0.035		0.0035	mg/kg dry	0.0347	0.0015 U	100	28-143	3	22	
2,4,5,6-TCMX	*0.033*			*mg/kg dry*	*0.0347*		*95*	*20-137*			
Decachlorobiphenyl	*0.041*			*mg/kg dry*	*0.0347*		*117*	*13-183*			

Polychlorinated Biphenyls by GC - Quality Control

Batch 5A06018 - EPA 3550C

Blank (5A06018-BLK1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:45

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.014	U	0.017	mg/kg wet							
PCB-1221	0.014	U	0.017	mg/kg wet							

QUALITY CONTROL DATA

Polychlorinated Biphenyls by GC - Quality Control

Batch 5A06018 - EPA 3550C - Continued

Blank (5A06018-BLK1) Continued Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 14:45

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1232	0.014	U	0.017	mg/kg wet							
PCB-1248	0.0063	U	0.017	mg/kg wet							
PCB-1254	0.016	U	0.017	mg/kg wet							
PCB-1260	0.011	U	0.017	mg/kg wet							
2,4,5,6-TCMX	*0.029*			*mg/kg wet*	*0.0333*		*88*	*20-137*			
Decachlorobiphenyl [2C]	*0.034*			*mg/kg wet*	*0.0333*		*103*	*13-183*			

LCS (5A06018-BS1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 15:53

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.38		0.017	mg/kg wet	0.333		115	29-185			
PCB-1260	0.35		0.017	mg/kg wet	0.333		104	66-171			
2,4,5,6-TCMX	*0.033*			*mg/kg wet*	*0.0333*		*99*	*20-137*			
Decachlorobiphenyl [2C]	*0.038*			*mg/kg wet*	*0.0333*		*112*	*13-183*			

Matrix Spike (5A06018-MS1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 16:05

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.38		0.041	mg/kg dry	0.397	0.034 U	95	29-185			
PCB-1260	0.32		0.041	mg/kg dry	0.397	0.026 U	82	66-171			
2,4,5,6-TCMX	*0.027*			*mg/kg dry*	*0.0397*		*68*	*20-137*			
Decachlorobiphenyl [2C]	*0.035*			*mg/kg dry*	*0.0397*		*89*	*13-183*			

Matrix Spike Dup (5A06018-MSD1) Prepared: 01/06/2015 14:00 Analyzed: 01/12/2015 16:16

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.39		0.041	mg/kg dry	0.398	0.034 U	97	29-185	3	21	
PCB-1260	0.41		0.041	mg/kg dry	0.398	0.026 U	103	66-171	24	17	QM-11
2,4,5,6-TCMX	*0.026*			*mg/kg dry*	*0.0398*		*65*	*20-137*			
Decachlorobiphenyl [2C]	*0.045*			*mg/kg dry*	*0.0398*		*113*	*13-183*			

FL Petroleum Range Organics - Quality Control

Batch 5A07001 - EPA 3550C

Blank (5A07001-BLK1) Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 18:26

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	3.4	U	5.7	mg/kg wet							

QUALITY CONTROL DATA

FL Petroleum Range Organics - Quality Control

Batch 5A07001 - EPA 3550C - Continued

Blank (5A07001-BLK1) Continued Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 18:26

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
n-Nonatriacontane	*3.6*			*mg/kg wet*	*3.33*		*109*	*41-129*			
o-Terphenyl	*1.8*			*mg/kg wet*	*1.67*		*106*	*45-135*			

LCS (5A07001-BS1) Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 18:58

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	69		5.7	mg/kg wet	56.7		122	42-126			
n-Nonatriacontane	*3.0*			*mg/kg wet*	*3.33*		*89*	*41-129*			
o-Terphenyl	*1.9*			*mg/kg wet*	*1.67*		*115*	*45-135*			

Matrix Spike (5A07001-MS1) Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 19:29

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	83		6.8	mg/kg dry	67.7	4.1 U	123	42-126			
n-Nonatriacontane	*3.0*			*mg/kg dry*	*3.98*		*75*	*41-129*			
o-Terphenyl	*2.4*			*mg/kg dry*	*1.99*		*123*	*45-135*			

Matrix Spike Dup (5A07001-MSD1) Prepared: 01/07/2015 05:55 Analyzed: 01/07/2015 20:01

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	72		6.8	mg/kg dry	68.4	4.1 U	106	42-126	14	31	
n-Nonatriacontane	*1.8*			*mg/kg dry*	*4.02*		*46*	*41-129*			
o-Terphenyl	*2.3*			*mg/kg dry*	*2.01*		*114*	*45-135*			

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5A08012 - EPA 7471B

Blank (5A08012-BLK1) Prepared: 01/08/2015 13:34 Analyzed: 01/09/2015 07:12

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00390	U	0.0100	mg/kg wet							

LCS (5A08012-BS1) Prepared: 01/08/2015 13:34 Analyzed: 01/09/2015 07:15

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.598		0.0100	mg/kg wet	0.600		100	80-120			

Matrix Spike (5A08012-MS1) Prepared: 01/08/2015 13:34 Analyzed: 01/09/2015 07:21

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.670		0.0120	mg/kg dry	0.674	0.00468 U	99	75-125			

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5A08012 - EPA 7471B - Continued

Matrix Spike Dup (5A08012-MSD1) Prepared: 01/08/2015 13:34 Analyzed: 01/09/2015 07:25

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.679		0.0120	mg/kg dry	0.674	0.00468 U	101	75-125	1	20	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5A07002 - EPA 3050B

Blank (5A07002-BLK1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:10

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.565	U	0.794	mg/kg wet							
Barium	0.0508	U	0.794	mg/kg wet							
Cadmium	0.0143	U	0.0794	mg/kg wet							
Chromium	0.0492	U	0.794	mg/kg wet							
Lead	0.175	U	0.794	mg/kg wet							
Selenium	0.571	U	3.17	mg/kg wet							
Silver	0.114	U	0.794	mg/kg wet							

LCS (5A07002-BS1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:13

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	46.3		0.980	mg/kg wet	49.0		94	80-120			
Barium	46.8		0.980	mg/kg wet	49.0		96	80-120			
Cadmium	4.75		0.0980	mg/kg wet	4.90		97	80-120			
Chromium	47.3		0.980	mg/kg wet	49.0		96	80-120			
Lead	46.8		0.980	mg/kg wet	49.0		95	80-120			
Selenium	44.9		3.92	mg/kg wet	49.0		92	80-120			
Silver	9.38		0.980	mg/kg wet	9.80		96	80-120			

Matrix Spike (5A07002-MS1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:15

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	36.1		0.952	mg/kg dry	47.6	1.04	74	75-125			QM-07
Barium	182		0.952	mg/kg dry	47.6	134	101	75-125			
Cadmium	3.55		0.0952	mg/kg dry	4.76	0.0171 U	75	75-125			
Chromium	45.4		0.952	mg/kg dry	47.6	7.81	79	75-125			
Lead	45.4		0.952	mg/kg dry	47.6	9.27	76	75-125			
Selenium	36.7		3.81	mg/kg dry	47.6	2.26	72	75-125			QM-07
Silver	6.97		0.952	mg/kg dry	9.52	0.137 U	73	75-125			QM-07

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5A07002 - EPA 3050B - Continued

Matrix Spike Dup (5A07002-MSD1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 12:17

Source: A500010-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	34.9		0.937	mg/kg dry	46.8	1.04	72	75-125	3	30	QM-07
Barium	181		0.937	mg/kg dry	46.8	134	99	75-125	0.8	30	
Cadmium	3.46		0.0937	mg/kg dry	4.68	0.0169 U	74	75-125	3	30	QM-07
Chromium	44.5		0.937	mg/kg dry	46.8	7.81	78	75-125	2	30	
Lead	44.3		0.937	mg/kg dry	46.8	9.27	75	75-125	2	30	
Selenium	35.8		3.75	mg/kg dry	46.8	2.26	72	75-125	2	30	QM-07
Silver	6.78		0.937	mg/kg dry	9.37	0.135 U	72	75-125	3	30	QM-07

Post Spike (5A07002-PS1) Prepared: 01/07/2015 09:09 Analyzed: 01/08/2015 13:44

Source: A500010-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.504		0.0100	mg/L	0.500	7.30E-5	101	80-120			
Cadmium	0.0509		0.00100	mg/L	0.0500	9.80E-5	102	80-120			
Selenium	0.503		0.0400	mg/L	0.500	9.54E-6	101	80-120			
Silver	0.102		0.0100	mg/L	0.100	-9.45E-6	102	80-120			

FLAGS/NOTES AND DEFINITIONS

PQL	PQL: Practical Quantitation Limit.
B	Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
I	The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
J	Estimated value.
K	Off-scale low; Actual value is known to be less than the value given.
L	Off-scale high; Actual value is known to be greater than value given.
M	Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample exceeded the accepted holding time.
T	Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC); the numeric value represents the filtration volume.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not reported due to interference.
J-01	Result is estimated due to positive results in the associated method blank.
J-02	Result is estimated due to bias in the associated laboratory control sample (LCS).
J-04	Result estimated, calibration verification standard failed with high bias.
J-05	Result estimated, calibration verification standard failed with low bias.
O-01	This compound is a common laboratory contaminant.
QL-02	The associated laboratory control sample exhibited high bias; since the result is ND, the impact on data quality is minimal.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-11	Precision between duplicate matrix spikes of the same sample was outside acceptance limits.
QS-03	Surrogate recovery outside acceptance limits
QV-01	The associated continuing calibration verification standard exhibited high bias; since the result is ND, the impact on data quality is minimal.
R-01	The Reporting Limit for this analyte has been raised to account for matrix interference.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Client Name: Geotechnical and Environmental (GE002)	Project Number: [none]
Address: 919 Lake Baldwin Lane	Project Name/Desc: I-4 Level II
City/ST/Zip: Orlando, FL 32814	PO # / Billing Info:
Tel: (407) 898-1818 Fax: (407) 898-1837	Reporting Contact: Richard McCormick
Sampler(s) Name, Affiliation (Print): Jerry W. Gouvernale	Billing Contact: Accounts Payable
Sampler(s) Signature:	Site Location / Time Zone:

Requested Analyses

%Solids, 8081B, 8082A, 8270D, 8270D PAH SIM, Ag, As, Be, Cd, Cr, FL-PRO, Hg, Pb, Se

8260B (Full VOC List)

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due ___/___/___

Lab Workorder: A500010

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	Preservation (See Codes) (Combine as necessary) I	OI	Sample Comments
1	SS ID SB109 8.5	1/6/15	1233	Grab	SO	6	X	X	O = 10mL MeOH + DI WATER
2	SB-107 1.5	1/5/15	1245	Grab	SO	6	X	X	

<-- Total # of Containers

Sample Kit Prepared By: BNH	Date/Time: 1/2/15 1350	Relinquished By: Brandy Hen	Date/Time: 1/2/15 1350	Received By: Jerry W Gouvernale	Date/Time: 1/2/15 1350
Comments/Special Reporting Requirements:		Relinquished By: Jerry W. Gouvernale	Date/Time: 1/6/15 0830	Received By:	Date/Time: 1/2/15 1350
		Relinquished By:	Date/Time: 1/6/15 0830	Received By:	Date/Time: 1/6/15 0830
		Cooler #'s & Temps on Receipt: SR-205 3°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix: **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: I-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

R. Cale 1/6/2015 0830

Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Facility/Site Name: Pond 307
Location: SB-107 @ 1.5 ft
Facility/Site ID No.:

Soil Sample No. SB-107
Sample Date 1/5/2015
Location: SB-107
Depth (ft): 1.5 ft

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.000	1.0	0.0000
Benzo(a)anthracene	0.000	0.1	0.0000
Benzo(b)fluoranthene	0.000	0.1	0.0000
Benzo(k)fluoranthene	0.000	0.01	0.0000
Chrysene	0.012	0.001	0.0000
Dibenz(a,h)anthracene	0.000	1.0	0.0000
Indeno(1,2,3-cd)pyrene	0.000	0.1	0.0000

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = 0.0

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Summary Criteria for Table Entries			
Detection	**Concentration Reported**	**Data Qualifier**	**Enter**
Various	Quantified with certainty	None	reported value
Various	Estimated	J	reported (estimated) value
ND at MDL	MDL	U	1/2 reported value
< MDL	Estimated	T	reported (estimated) value
≥ MDL but < PQL	Estimated	I	reported (estimated) value
≥ MDL but < PQL	PQL	M	1/2 reported value

Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Facility/Site Name: Pond 308
Location: SB-122 @ 4.5 ft
Facility/Site ID No.:

Soil Sample No. SB-122
Sample Date 1/2/2015
Location: SB-122
Depth (ft): 4.5 ft

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.000	1.0	0.0000
Benzo(a)anthracene	0.000	0.1	0.0000
Benzo(b)fluoranthene	0.000	0.1	0.0000
Benzo(k)fluoranthene	0.000	0.01	0.0000
Chrysene	0.017	0.001	0.0000
Dibenz(a,h)anthracene	0.000	1.0	0.0000
Indeno(1,2,3-cd)pyrene	0.000	0.1	0.0000

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = **0.0**

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Summary Criteria for Table Entries			
Detection	**Concentration Reported**	**Data Qualifier**	**Enter**
Various	Quantified with certainty	None	reported value
Various	Estimated	J	reported (estimated) value
ND at MDL	MDL	U	1/2 reported value
< MDL	Estimated	T	reported (estimated) value
≥ MDL but < PQL	Estimated	I	reported (estimated) value
≥ MDL but < PQL	PQL	M	1/2 reported value

APPENDIX C:

Former Siemens Facility and Crescent Property Information

Prepared for:

Crescent Communities, LLC
20 N Orange Ave.
Suite 605
Orlando, Florida

SUPPLEMENTAL SOURCE ASSESSMENT & CONTAMINANT PLUME STABILITY MONITORING REPORT

SUBJECT SITE: CVOC AND 1,4-DIOXANE SAS GROUNDWATER CONTAMINATION AREA LOCATED ON CRESCENT PROPERTY AND RINEHART PROPERTY IN PROXIMITY TO THE FORMER SIEMENS MANUFACTURING FACILITY LOCATED AT 400 RINEHART ROAD, SEMINOLE COUNTY, LAKE MARY, FLORIDA

Prepared by:

Geosyntec consultants

engineers | scientists | innovators

900 Broken Sound Parkway, N.W., Suite 200
Boca Raton, Florida 33487

Project Number: FR1160

January 2015

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1. INTRODUCTION

1.1 Background

On behalf of our client, Crescent Communities, LLC (Crescent), Geosyntec Consultants, Inc. (Geosyntec) has prepared this Supplemental Source Assessment & Contaminant Plume Stability Monitoring Report (Report) for an area of chlorinated volatile organic compound (CVOC) and 1,4-Dioxane groundwater contamination within the Surficial Aquifer System (SAS) located on Crescent Property and adjacent property (this includes the property adjacent to the northeast of a central portion of Crescent Property and what is known as the wastewater treatment plant) owned by Rinehart Development and Investment Group LLC (Rinehart) (this affected area is referred to herein as "Site"). This contamination is considered to be associated with historical operations associated with a Siemens Manufacturing Facility (since this facility is no longer operational, it is referred to herein as "Former") which was located within Rinehart Property; prior to current ownership, Siemens owned the Rinehart Property and the adjacent Crescent Property (**Figure 1**).

The area of CVOC and 1,4-Dioxane contamination addressed herein ("Site") has been seen to be spatially isolated from other contamination found to be associated with the aforementioned Former Siemens Manufacturing Facility. Other contamination associated with the aforementioned Former Siemens Manufacturing Facility (and involving similar contaminants) has been found in other areas of the SAS as well as within the underlying Floridan Aquifer System (FAS) (this contamination is being addressed separately). Through multiple communications over the years with the Florida Department of Environmental Protection (FDEP), it is understood by Geosyntec and Crescent that FDEP has concluded General Dynamics (who, with Siemens Corporation [Siemens] and MONI Holding LLC [MONI], is leading the cleanup effort for this other contamination) is responsible for all the contamination mentioned herein (including all of that which is on Crescent Property). Further, it is understood that FDEP does not hold Crescent responsible for the contamination. Actions taken and being taken by Crescent on and near its property (for example, see FDEP's 22 April 2014 approval letter to Crescent) are voluntary on Crescent's part and strictly aimed at Crescent working toward unencumbering portions of its property affected by the above-referenced contamination within the SAS. **To clarify, Crescent has been told by FDEP that through Crescent's efforts (such as that reported herein) and subject to the outcome of those efforts in combination with Crescent's plans for a restrictive covenant to address the affected portion of the SAS on Crescent Property, Crescent may receive a Site Rehabilitation Completion Order (SRCO) with conditions from FDEP for the area of SAS contamination on Crescent Property.** This report was prepared pursuant to Geosyntec's 19 March 2014 Proposed Work Plan and 16 April 2014 follow-up email (herein called "Work Plan") and the FDEP's 22 April 2014 approval letter (**Appendix A**).

Geosyntec completed soil and groundwater assessment activities on Crescent Property in 2008 and 2009 (see Geosyntec's Site Assessment Report [SAR] dated April 2008 and SAR Addendum [SARA] dated May 2009). No CVOC or 1,4-Dioxane soil contamination confirming a contaminant source has been identified in Geosyntec's testing within Crescent Property. The results of Geosyntec's groundwater assessment identified CVOCs and 1,4-Dioxane within the SAS groundwater on some of the Crescent Property; based on groundwater testing in Crescent Property wells, the SAS plume of CVOCs and 1,4-Dioxane has been shown in past Geosyntec reporting to be bounded by monitoring wells and/or piezometers to the north, west, south where historical testing showed CVOC and 1,4-Dioxane levels to be below FDEP groundwater cleanup target levels (GCTLs; reference Chapter 62-777, Florida Administrative Code [FAC]). Groundwater flow in the affected portions of the SAS on Crescent Property has commonly been found to be mostly west and southwest.

Geosyntec's assessment work on Crescent Property lead to FDEP requiring assessment work by others in an area of Rinehart Property shown to be hydraulically upgradient from Crescent Property. Notably, elevated concentrations of CVOCs and 1,4-Dioxane were identified in direct-push technology-collected groundwater samples from a small area northeast of a central portion of Crescent Property (refer to L.S. Sims & Associates, Inc. Site Assessment Report Addendum 4 dated September 2009).

Prior to 2014, no testing on Rinehart Property was performed by Geosyntec on behalf of Crescent. Geosyntec's 2014 testing on Rinehart Property which is reported herein was completed pursuant to a 2014 access agreement with Rinehart.

1.2 Purpose and Scope

Pursuant to FDEP's 22 April 2014 approval of Geosyntec's Work Plan, the work collected for this Report addresses an area of contamination within the SAS which affects portions of Crescent Property and Rinehart Property in a continuing effort to obtain a Site Rehabilitation Completion Order (SRCO) with conditions for this contamination from FDEP. The FDEP-requested work completed for this Report consisted of:

(i) Performing contaminant source assessment work on the Rinehart-owned wastewater treatment plant parcel to look for evidence of remaining sources of contamination within that parcel;

(ii) Installation of additional SAS groundwater monitoring wells to help further demonstrate delineation of the CVOC and 1,4-Dioxane contamination area found in the SAS; and

(iii) Collecting a recent set of groundwater elevation and sample testing data in the SAS on Crescent Property and adjacent portions of Rinehart Property to help evaluate contaminant plume stability.

This Report summarizes the activities and results of work conducted at the Crescent and Rinehart Properties in July and August 2014, implemented pursuant to FDEP's approved Work Plan. In addition, this report also includes a response to comments provided by FDEP in a 22 September 2014 letter (**Appendix A**) related to Geosyntec's 26 November 2013 comment letter.

The field activities summarized in the below sections were completed in general accordance with guidance contained within the FDEP's Standard Operating Procedures (SOPs).

6. CONCLUSIONS AND RECOMMENDATIONS

Geosyntec performed additional soil and groundwater assessment work at Crescent Property and Rinehart Property pursuant to Geosyntec's Work Plan and FDEP's 22 April 2014 letter. In view of the results of this work, Geosyntec provides the following opinions:

(i) Contaminant source assessment work on the Rinehart-owned wastewater treatment plant parcel did not reveal obvious evidence of a remaining undissolved source of CVOC or 1,4-Dioxane contamination within that parcel;

(ii) Installation of three additional SAS groundwater monitoring wells helped confirm the past-estimated extent of the CVOC and 1,4-Dioxane contamination area found in the SAS at the Site; and

(iii) Collection of an up-to-date set of groundwater elevation and sample testing data in the SAS on Crescent Property and adjacent portions of Rinehart Property suggest that the CVOC and 1,-4-Dioxane plumes within the SAS remain delineated by the monitoring well network established for the Site, and are stable and/or shrinking. Overall the CVOC and 1,-4-Dioxane concentrations have remained relatively consistent or decreased since 2008 and the CVOC/1,-4-Dioxane plume body does not appear to have notably enlarged or migrated.

One additional monitoring event is planned to further evaluate plume delineation and stability. This event is scheduled to occur during the dry season, in February 2015. The results of this monitoring event will be summarized in a report for submission to FDEP. Pending the results of the next groundwater monitoring event, this report may include a request for a conditional SCRO from FDEP for the area of contamination within the SAS that constitutes this Site. Based on conversations with FDEP and our review of Chapter 62-780, FAC, Geosyntec understands the following next steps will need to be completed (in addition to the aforementioned second [February 2015] groundwater monitoring event) in an effort to obtain an SRCO with conditions from FDEP for this Site:

i) Obtain a survey and legal description of the affected area (i.e., area of groundwater contamination to be deed restricted).

ii) Proposition of a Restrictive Covenant for the affected area (in the form of a deed restriction, change to City of Lake Mary Ordinance, and/or developer commitment agreement) which includes the following "institutional" restrictions (no "engineering" restrictions are contemplated):

a. Existing government restrictions from the City of Lake Mary Subdivision Regulations §155.32 applicable to the Site;
b. No septic tanks or private water supply wells are allowed to remain on the Site;
c. Pumping groundwater for dewatering purposes is not allowed on the Site;
d. No water supply wells or surface water withdrawal shall be used for any purpose at the Site, including, but not limited to irrigation of landscaped areas, fire prevention purposes, and for potable use at the Site;
e. Utility system, stormwater system, and building designers/installers/operators shall be made aware of the nature and presence of identified contamination within the Site so that such built features can be permitted/designed/installed/operated in a safe manner with respect to this contamination; and
f. Water injection and infiltration systems on the Site shall be permitted, designed, installed and operated so as to minimize the potential for such systems to cause an unacceptable mobilization of identified contamination at the Site.

iii) Pursuant to FDEP's 22 September 2014 letter, Geosyntec will attempt to obtain written concurrence from Rinehart that Rinehart concurs with a Site closure that allows groundwater contamination to remain at Rinehart Property (we understand from this letter that FDEP will allow Crescent to receive an SRCO for the SAS contamination on Crescent Property without Rinehart placing a restrictive covenant on Rinehart Property if written concurrence is obtained from Rinehart).

iv) Prepare a Constructive Notice regarding the proposed approach for Site closure, to be published in a local commonly circulated newspaper.

v) Once the Restrictive Covenant is approved by FDEP and in force, and FDEP has issued its intent to provide an SRCO with conditions for the Site, then the Site-related monitoring wells will be abandoned.

7. RESPONSE TO FDEP 22 SEPTEMBER 2014 LETTER

On behalf of Crescent, the following responses to FDEP's 22 September 2014 letter are provided:

FDEP Comment #1: T*he forthcoming Limited Scope Remedial Action Plan (LSRAP) Approval Order only applies to the SAS and FAS groundwater contamination emanating from the Main Plant Facility. It does not address the SAS contamination that is separated from the Main Plant Facility and exists predominantly on the Crescent property.*

Response to FDEP Comment #1: Geosyntec/Crescent contend (as indicated in past submittals), that contamination in the SAS on Crescent Property resulted from chemical release(s) associated with Main Plant-related operations in the area which predated Crescent's ownership. FDEP had required GD to produce a comprehensive RAP for all of the contamination associated with Main Plant operations, and GD's consultant did respond with a RAP that they intended to be comprehensive and which included provision of a strategy to address SAS contamination on Crescent Property. Later, the collection of GD-related RAP submittals to FDEP were downgraded to a less comprehensive "Limited Scope" RAP that did not address all the SAS/FAS contamination from chemical release(s) associated with Main Plant-related operations in the area.

FDEP Comment #2: *The LSRAP does not encompass the SAS groundwater contamination that is separated from the Main Plant Facility and exists predominantly on the Crescent property. The remedial strategy for that contamination depends on the closure strategy for the SAS contamination that exists on the Crescent property.*

Response to FDEP Comment #2: See above Response to FDEP Comment #1. Although most of the contaminated area in the SAS is within Crescent Property, there has been no dispute that this resulted from chemical release(s) associated with Main Plant-related operations in the area which predated Crescent's ownership. As an example of supporting evidence, L.S. SIMS's (2009) data suggest a historical chemical release location on Rinehart Property which is hydraulically upgradient of affected Crescent Property.

FDEP Comment #3: *That is correct. The TPOC line only establishes the TPOC for the groundwater contamination that emanates from the Main Plant Facility. It does not encompass the SAS groundwater contamination that exist on the Crescent property.*

Response to FDEP Comment #3: Given FDEP's comment, then it seems there should be a Chapter 62-780 FAC requirement for GD/Siemens/MONI to establish a TPOC for the SAS

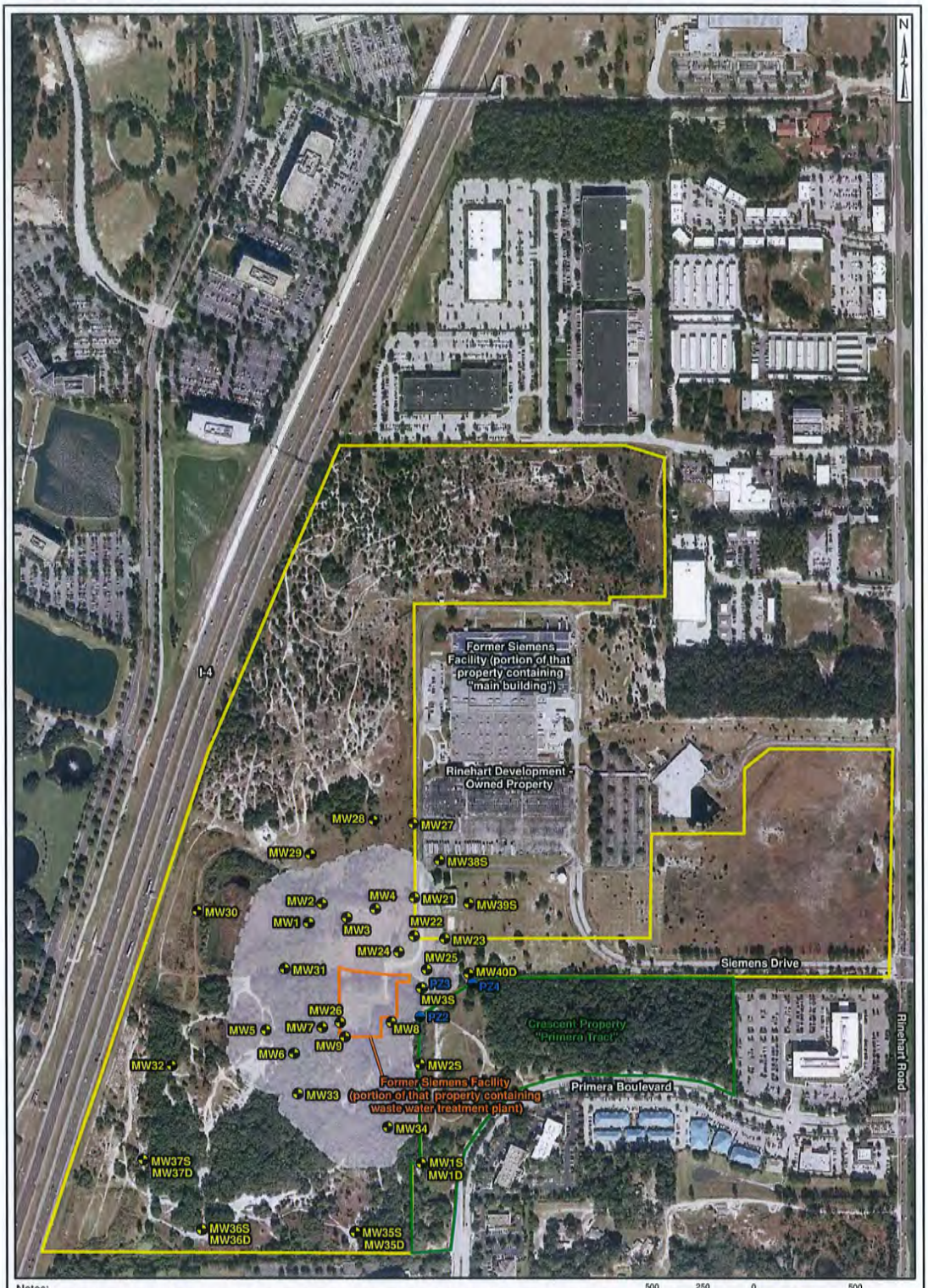
contamination on Crescent Property since it is understood that FDEP holds GD/Siemens/MONI responsible for this SAS contamination and since FDEP has indicated in the past that the "site assessment" phase of work for the contamination is approved by FDEP. However, Geosyntec/Crescent understands this may be moot if an SRCO with conditions is issued by FDEP in the next few months for the SAS contamination on Crescent Property.

FDEP Comment #4: *We have no objection to the use of a "developer commitment agreement" as long as the proposed "developer commitment agreement" is in conjunction with and acknowledges the City of Lake Mary's Ordinance that prohibits installation and use of potable wells for future development. However, the "developer commitment agreement" must prohibit not only private wells for potable use but also private wells for sprinkling, irrigation, and fire prevention purposes or activities, and unlined storm water features that could cause the groundwater contamination to spread to areas that are currently not impacted. The "developer commitment agreement" must also either prohibit dewatering in the area of the groundwater contamination or describe how the extracted water will be managed and how the dewatering will be performed so that it will not cause the groundwater contamination to spread to areas that are currently not impacted Additionally, while it is correct that Crescent can receive an SRCO for the SAS contamination on Crescent property without the Rinehart landowner placing a restrictive covenant on its property, pursuant to Rule 62-780.680(3), F.A.C., written concurrence would be required from the current Rinehart property owner that they concur with a site closure that allows groundwater contamination to remain on their property.*

Response to FDEP Comment #4: Geosyntec/Crescent acknowledge that the developer commitment agreement must prohibit private wells for potable use, sprinkling, irrigation, and fire prevention purposes or activities and unlined storm water features (see Section 6 above). Crescent is sending a letter to Rinehart which: i) invites them (at their own cost and with no cost to Crescent) to emplace (in early 2015, if they want the benefit of being included in the SRCO with conditions, which Crescent is seeking) a restrictive covenant on their affected property that is consistent what what is required above; or ii) provide the indicated written concurrence within 60 days.

FDEP Comment #5: *We acknowledge this comment.*

Response to FDEP Comment #5: No response.



Notes:
1. Please refer to Figures 7 and 8 and Table 6 for groundwater analytic data for the MWs and PZs shown on this Figure.
2. 2012 Photo Source: Florida Department of Transporation Surveying and Mapping Office.

Legend

- SAS Monitoring Well Location
- SAS Piezometer Location
- Crescent Property Line - New Century Park Siemens Purchase (estimated from PEC's 10/27/00 and 10/22/13 survey)
- Crescent Property Line - Primera Tract (estimated from PEC's 10/22/13 survey)
- Waste Water Treatment Plant - not Crescent Property (owned by Rinehart Development) (estimated from PEC's 10/27/00 survey)
- Estimated Areal Extent Composite of 1,1-DCE and 1,4-Dioxane plumes exceeding the GCTL of 7 and 3.2 µg/L respectively in SAS Groundwater at the Site - 2008 through 2014

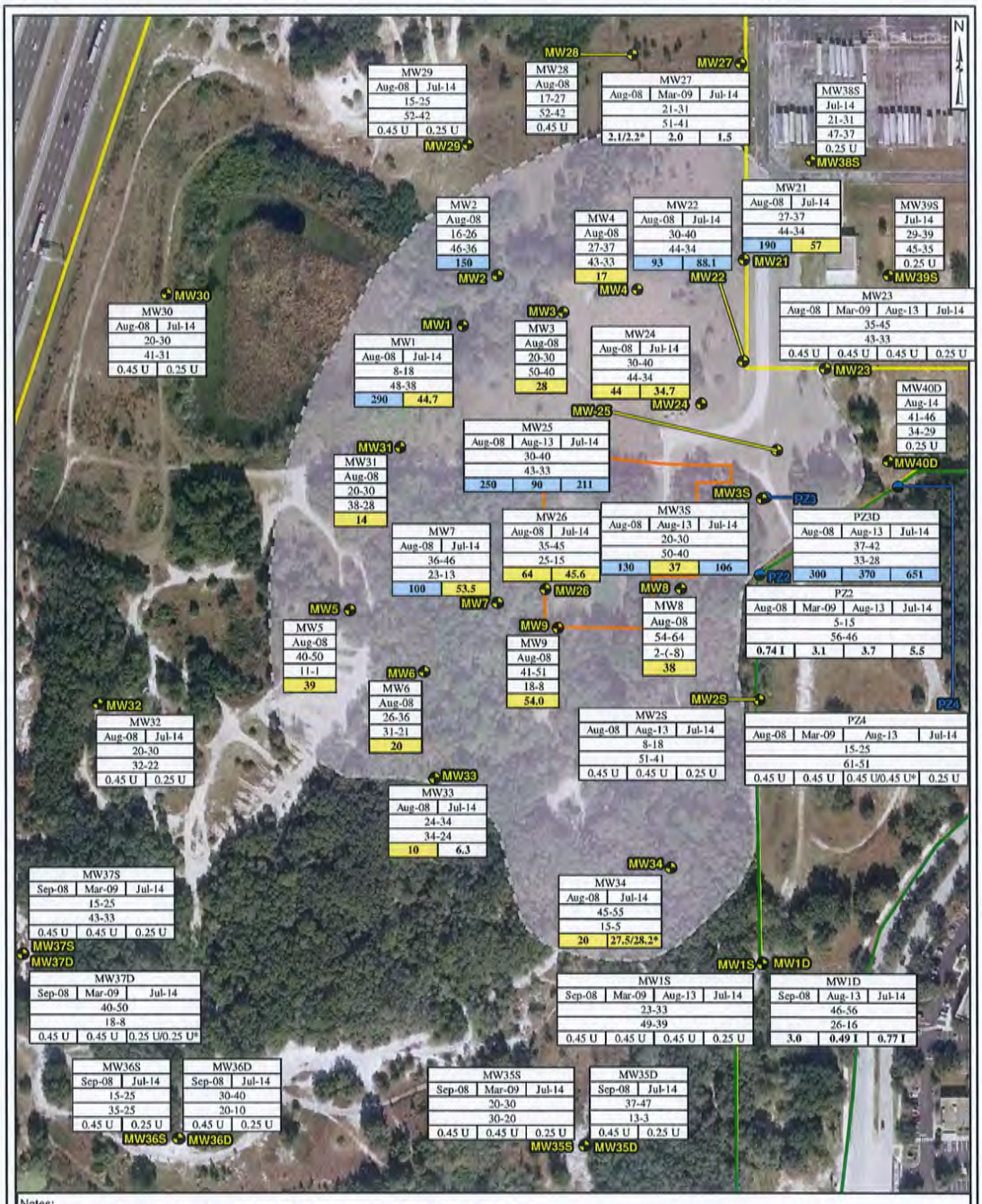
SAS Plume Site Layout and Associated Monitoring Well Locations

Client: Crescent Communities, LLC
Seminole County, Lake Mary, Florida

Geosyntec consultants

Figure No: 1
Project: FR1160

Path: (Titusville-01\DATA) P:\0GIS\FR1160\MXDs\AUG2014\Fig1_sept2014.mxd 24 September 2014 MAH



Notes:
1. Results are presented in micrograms per liter (µg/L).
2. ft MSL indicates feet, mean sea level.
3. ft BLS indicates feet, below land surface.
4. U indicates the analyte was analyzed for but not detected.
5. I indicates reported value is between the method detection limit and the practical quantitation limit.
6. Bolded text indicates analyte was detected in the sample analyzed at a concentration exceeding the method detection limit.
7. Yellow shading indicates exceedance of FDEP Groundwater Cleanup Target Level (GCTL).
8. Blue shading indicates exceedance of FDEP Natural Attenuation Default Criteria (NADC).
9. * indicates duplicate sample.
10. 2012 Photo Source: Florida Department of Transporation Surveying and Mapping Office.

200 100 0 200 Feet
Approximate Scale

Legend

- SAS Monitoring Well Location
- SAS Piezometer Location
- Crescent Property Line - New Century Park Siemens Purchase (estimated from PEC's 10/27/00 and 10/22/13 survey)
- Crescent Property Line - Primera Tract (estimated from PEC's 10/22/13 survey)
- Waste Water Treatment Plant - not Crescent Property (owned by Rinehart Development) (estimated from PEC's 10/27/00 survey)
- Estimated Areal Extent of 1,1-DCE exceeding the GCTL of 7 µg/L in SAS Groundwater at the Site - 2008, 2009, 2013, and 2014

		Well ID
		Sample Date
		Screen Depth (ft BLS)
		Screen Elevation (ft MSL)
Screening Criteria	GCTL = 7	Detected Concentration in µg/L (yellow shading if > GCTL)
	NADC = 70	Detected Concentration in µg/L (blue shading if > NADC)

Estimated Areal Extent of 1,1-DCE in SAS Groundwater - Composite of August and September 2008, March 2009, August 2013, and July and August 2014

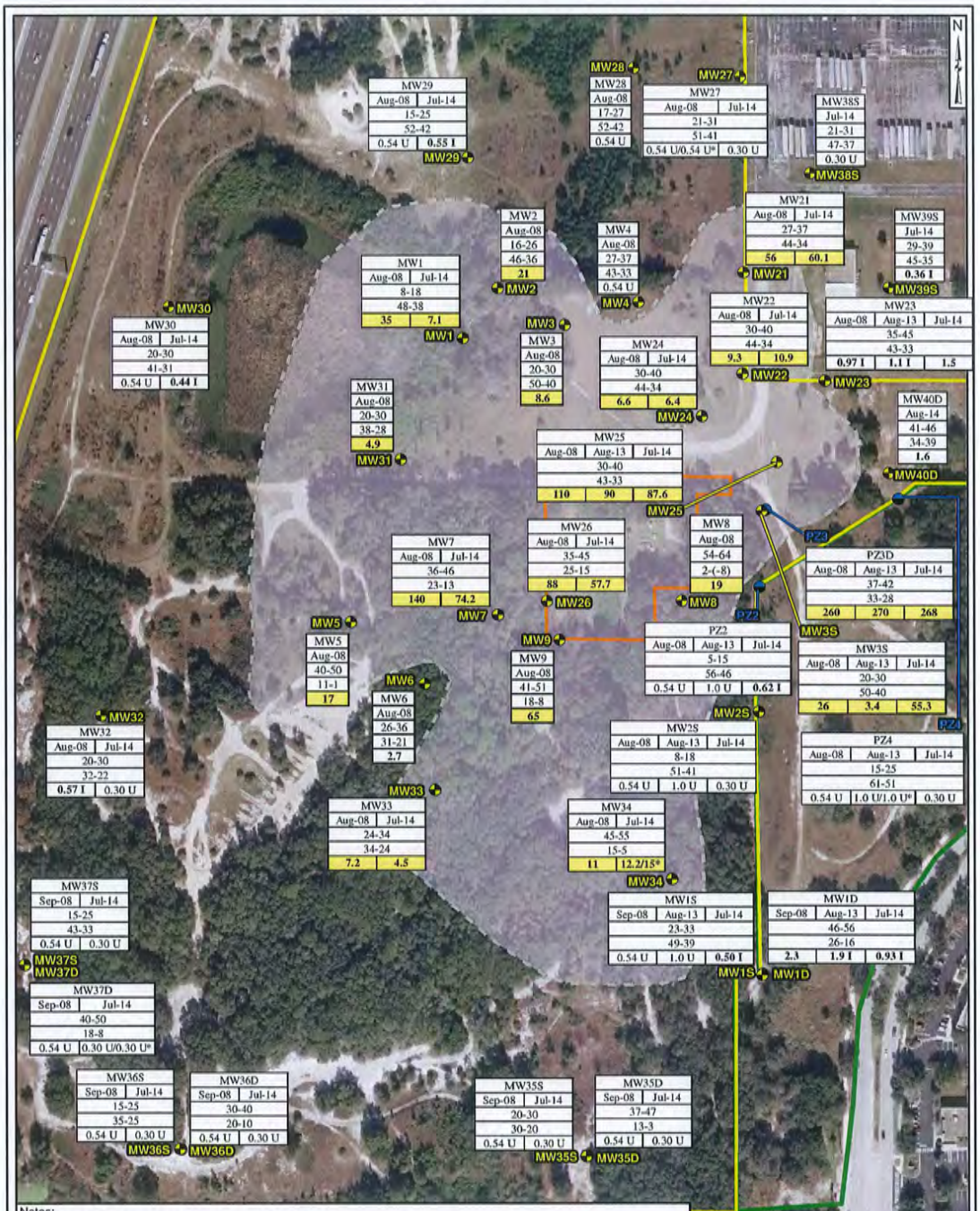
Client: Crescent Communities, LLC
Seminole County, Lake Mary, Florida

Geosyntec consultants

Figure No: 7

Project: FR1160

Path: (Titusville-01\DATA) P:\GIS\FR1160\MXDs\AUG2014\1_1_DCE_JULY2014.mxd 25 September 2014 MAH



Notes:
1. Results are presented in micrograms per liter (µg/L).
2. ft MSL indicates feet, mean sea level.
3. ft BLS indicates feet, below land surface.
4. U indicates the analyte was analyzed for but not detected.
5. I indicates reported value is between the method detection limit and the practical quantitation limit.
6. Bolded text indicates analyte was detected in the sample analyzed at a concentration exceeding the method detection limit.
7. Yellow shading indicates exceedance of FDEP Groundwater Cleanup Target Level (GCTL).
8. NADC indicates FDEP Natural Attenuation Default Criteria.
9. * indicates duplicate sample.
10. 2012 Photo Source: Florida Department of Transporation Surveying and Mapping Office.

Legend

- SAS Monitoring Well Location
- SAS Piezometer Location
- Crescent Property Line - New Century Park Siemens Purchase (estimated from PEC's 10/27/00 and 10/22/13 survey)
- Crescent Property Line -Primera Tract (estimated from PEC's 10/22/13 survey)
- Waste Water Treatment Plant - not Crescent Property (owned by Rinehart Development) (estimated from PEC's 10/27/00 survey)
- Estimated Areal Extent of 1,4-Dioxane exceeding the GCTL of 3.2 µg/L in SAS Groundwater at the Site - 2008, 2013, and 2014

		Well ID
		Sample Date
		Screen Depth (ft BLS)
		Screen Elevation (ft MSL)
Screening Criteria	GCTL = 3.2	Detected Concentration in µg/L (yellow shading if > GCTL)
	NADC = 320	Detected Concentration in µg/L (blue shading if > NADC)

Estimated Areal Extent of 1,4-Dioxane in SAS Groundwater - Composite of August and September 2008, August 2013, and July and August 2014

Client: Crescent Communities, LLC
Seminole County, Lake Mary, Florida

Geosyntec consultants

Figure No: 8

Project: FR1160

Path: (Titusville-01\DATA) P:\0GIS\FR1160\MXDs\AUG2014\1_4_Dioxane_JULY2014.mxd 25 September 2014 MAH

Annual Groundwater Monitoring Report
Former Siemens Site
Lake Mary, Florida
WCU Site ID: COM_22379

March 2014

Gregory L. Christians, P.G.
Lic. No. PG2219
Managing Hydrogeologist

BC Project 145438

Brown AND Caldwell
990 Hammond Drive, Suite 400
Atlanta, Georgia 30328

Executive Summary

This Annual Groundwater Monitoring Report presents work performed for the period January 2013 to January 2014. Four monitoring events were conducted during the period and a total of 94 samples were collected. The data collected confirms that the groundwater extraction and treatment system continues to effectively contain Surficial Aquifer System (SAS) groundwater, control any further migration of contaminants from the SAS to the Floridan Aquifer System (FAS), and remove volatile organic compounds (VOCs) and 1,4-dioxane mass from the recovered groundwater. The VOC and 1,4-dioxane concentrations in the SAS and FAS monitoring well samples reveal decreasing trends (indicative of a shrinking plume) in most areas and a stable plume in the remaining areas.

SAS Concentrations

The 1,1-dichloroethene (1,1-DCE), trichloroethene (TCE), and 1,4-dioxane concentrations in over half of the SAS wells in 2013 were below the Groundwater Cleanup Target Levels (GCTLs) or decreased relative to the 2012 concentrations, and were generally stable in the remaining wells. Tetrachloroethene (PCE) was below the GCTL in all SAS monitoring wells except two, 1,1,1-tricholorethane (TCA) concentrations were below the GCTL in all SAS monitoring wells except one, and vinyl chloride (VC) was not detected above the GCTL in any SAS well samples in 2013.

FAS Concentrations

FAS sample concentrations were generally consistent with previous results and also show an overall decreasing trend. Notably, 1,1-DCE concentrations in 30 of the 45 FAS wells were below the GCTLs in the 2013 period, as compared to 28 wells in 2012, and 22 wells in 2011. The June 2013 1,1-DCE concentrations were higher than the December 2012 concentrations in 17 FAS wells, but were lower than the June 2012 concentrations in all but four wells and in these wells 1,1-DCE concentrations were very similar to those in June 2012 and/or were below the GCTLs in both events. The 1,1-DCE concentrations in the wells at the outer perimeter of the plume and in the vertical delineation well (FAS-21) remained below the GCTL. TCE was only detected above the GCTL in five FAS wells, all of which are interior to the plume, and TCE was not detected in any perimeter wells. VC was detected above the GCTL in three wells at very low concentrations (1.7 microgram per liter [µg/L] to 2.8 µg/L). PCE and 1,1,1-TCA were not detected above the GCTLs in any FAS wells. 1,4-dioxane concentrations in 23 of the 45 FAS monitoring wells are already below the GCTL. 1,4-dioxane concentrations in all of the FAS monitoring wells either declined or remained stable relative to December 2012 concentrations. As with 1,1-DCE, 1,4-dioxane concentrations in June 2013 remained below the GCTL in the wells at the outer perimeter of the plume and in the vertical delineation well.

COC Distribution

The distribution of 1,1-DCE and 1,4-dioxane is similar to that depicted in previous monitoring reports. The highest concentrations in the SAS and FAS are present in SAS-4i and FAS-1, respectively, near the former Backyard Area, although concentrations in these wells are significantly lower than their peak concentrations in 2007/2008. The recovery system is maintaining hydraulic control in areas of the SAS where VOCs and 1,4-dioxane have been identified, thereby controlling the mass flux into the FAS and contributing to improving groundwater quality conditions in the FAS, a situation that over time will result in attaining GCTLs in the FAS.

Section 1

Site Background and Objectives

This report describes the groundwater containment and monitoring work for the period January 2013 to January 2014. Work conducted during this reporting period consisted of submittal of the Site Remedial Action Plan (RAP), operation, maintenance and monitoring of the groundwater containment system, annual sampling of Site groundwater wells, development of additional information to support the RAP, and remedial technology evaluation and documentation. Background on the Site and an outline of this report are provided below.

1.1 Site Background

The former Siemens Lake Mary site (the Site) is located in Seminole County within Sections 6 and 7, Township 20S, Range 30E (Figure 1). The street address is 400 Rinehart Road, Lake Mary, Florida. The property is situated between Rinehart Road and Interstate Highway 4 in an area zoned for light manufacturing.

The Site was previously used for manufacturing of network and communications equipment beginning around 1969. For the purposes of this project, the Site is the parcel identified as "Lot 1" on the enclosed facility site plan (Figure 2). This property, currently owned by Rinehart Development & Investment Group, LLC, includes the former manufacturing building (Main Building), the former marketing and administration building, and two small structures associated with the former recreation facilities and the production well. Portions of the property surrounding the Site labeled "Lot 2" on Figure 2 are owned by Crescent Resources LLC.

In response to the presence of elevated concentrations of volatile organic compounds (VOCs) and other constituents in groundwater within the former Backyard Area, an Interim Source Removal (ISR) system was designed and installed in 2006 and operation began in 2007. Soil and groundwater investigations preceded the installation of the ISR system under requirements promulgated under Florida Administrative Code (FAC) Chapter 62-780. After several addenda to the initial Site Assessment Report in the ensuing years, the Site Assessment was approved and deemed complete by the Florida Department of Environmental Protection (FDEP) in a letter dated June 5, 2012.

The objectives of the groundwater containment system are to:

- Hydraulically contain and remove the groundwater impacted by VOCs and 1,4-dioxane above the Groundwater Cleanup Target Levels (GCTLs) in the Surficial Aquifer System (SAS);
- Prevent significant vertical migration of VOCs and 1,4-dioxane into the underlying Floridan Aquifer System (FAS); and
- Minimize or reduce VOC and 1,4-dioxane mass within the SAS groundwater.

1.2 Report Organization

This report is organized into six sections. Section 2 provides an overview of the groundwater containment system and presents and discusses system operating data and performance in 2013. The groundwater sampling program and results are described in Section 3. The recent evaluation of remedial technologies is summarized in Section 4, and Section 5 presents conclusions and

recommendations based on the system and groundwater sampling results. Limitations associated with this report are presented in Section 6.

Section 5

Conclusions and Recommendations

5.1 Conclusions

The groundwater extraction and treatment system is currently achieving the hydraulic containment objective in the areas of the SAS near the Main Building impacted by VOCs and 1,4-dioxane. The system continues to reduce the mass of these compounds in SAS groundwater in this area, although as expected the removal rate is lower than in previous years as the system approaches a steady-state equilibrium. The hydraulic containment is also reducing the mass flux into the FAS, thereby promoting long-term water quality improvement that will result in natural attenuation of VOCs and 1,4-dioxane in the FAS.

The VOC and 1,4-dioxane concentrations in the SAS and FAS monitoring well samples show an overall decreasing trend in most areas and a stable plume in the remaining areas. The 1,1-DCE and 1,4-dioxane concentrations in the SAS wells in 2013 were below the GCTL or decreased relative to the 2012 concentrations in well over half of the SAS wells and were generally stable in the remaining wells. The distribution of 1,1-DCE and 1,4-dioxane is similar to that from previous events; the highest concentrations are present in SAS-4i and SAS-10i near the former Backyard Area, although concentrations in these wells are significantly lower than their peak concentrations in 2007/2008.

FAS sample concentrations were generally consistent with previous test results and show an overall decreasing trend. Specifically, 1,4-dioxane concentrations remained the same or declined in all of the FAS monitoring wells. Thus, the system is achieving the objective of controlling vertical migration into the FAS.

5.2 Recommendations

The following actions are recommended:

5.2.1 Groundwater Extraction and Treatment System Operation and Maintenance

It is recommended that the groundwater extraction and treatment system remain in operation for the foreseeable future. Specifically:

- Continued operation of the existing extraction and treatment system components as long as they function consistently and reliably.
- Retrofit of the existing 1,4-dioxane treatment (HiPOx®) unit to replace the existing mixer (reactor) elements. The new mixer elements will provide more efficient mixing conditions by eliminating the need for internal bypass/recycling and allow continuous operation, and are expected to reduce wear on system components and power, oxygen, and chemical use. Installation of this system was completed in early March 2014.
- Weekly site inspections and as-needed maintenance procedures will continue to be conducted to support ongoing extraction and treatment system performance.

As with all technology, development efforts are constantly channeling new ideas to the market and the parties will continue to stay abreast of these developments.

5.2.2 Recovery and Treatment System Monitoring

Consistent with the updated monitoring program approved by FDEP in November 2013 discussed in Section 3.1, the groundwater recovery and treatment system monitoring protocol will consist of the following:

Contaminant Monitoring:

- VOCs according to USEPA Method 8260B
- 1,4-dioxane according to USEPA Method 8260C SIM ID.

Sampling Locations:

- SAS monitoring well SAS-5i as a surrogate for recovery well RW-1
- Recovery wells RW-2 through RW-7 as shown on Figure 3
- Combined treatment system influent
- System effluent

Sampling Frequency:

- Semiannual (June and December) monitoring.

5.2.3 Groundwater Monitoring Well Sampling

The RAP proposed a revised monitoring protocol designed to transition from characterization in the Site Assessment phase to monitoring the progress of the proposed remedy in the Remedial Action phase. This proposal was updated in the October 8, 2013 letter to FDEP based on comments provided by FDEP, and as discussed in the Section 3.1, the following groundwater monitoring program will be implemented as approved by FDEP.

Contaminant Monitoring:

- VOCs according to USEPA Method 8260B
- 1,4-dioxane according to USEPA Method 8260C SIM ID

Sampling Locations:

- SAS monitoring wells SAS-1i, SAS-3i, SAS-8i, SAS-13i, SAS-14i, SAS-15i, SAS-16i, and SAS-18i
- FAS Sentinel monitoring wells located around the perimeter of the FAS plume: FAS-26, FAS-30, FAS-35, FAS-39, FAS-42, FAS-43, and FAS-44
- FAS Indicator monitoring wells located within the FAS plume: FAS-1, FAS-2, FAS-4, FAS-15, FAS-19, FAS-21, FAS-23 and FAS-27

Sampling Frequency:

- Annual monitoring (in June)

The FAS sentinel wells will provide data used to verify plume stability in accordance with the Site groundwater model, while the SAS and FAS indicator wells will provide data to verify plume stability and the effectiveness of the SAS containment and mass removal remedy.

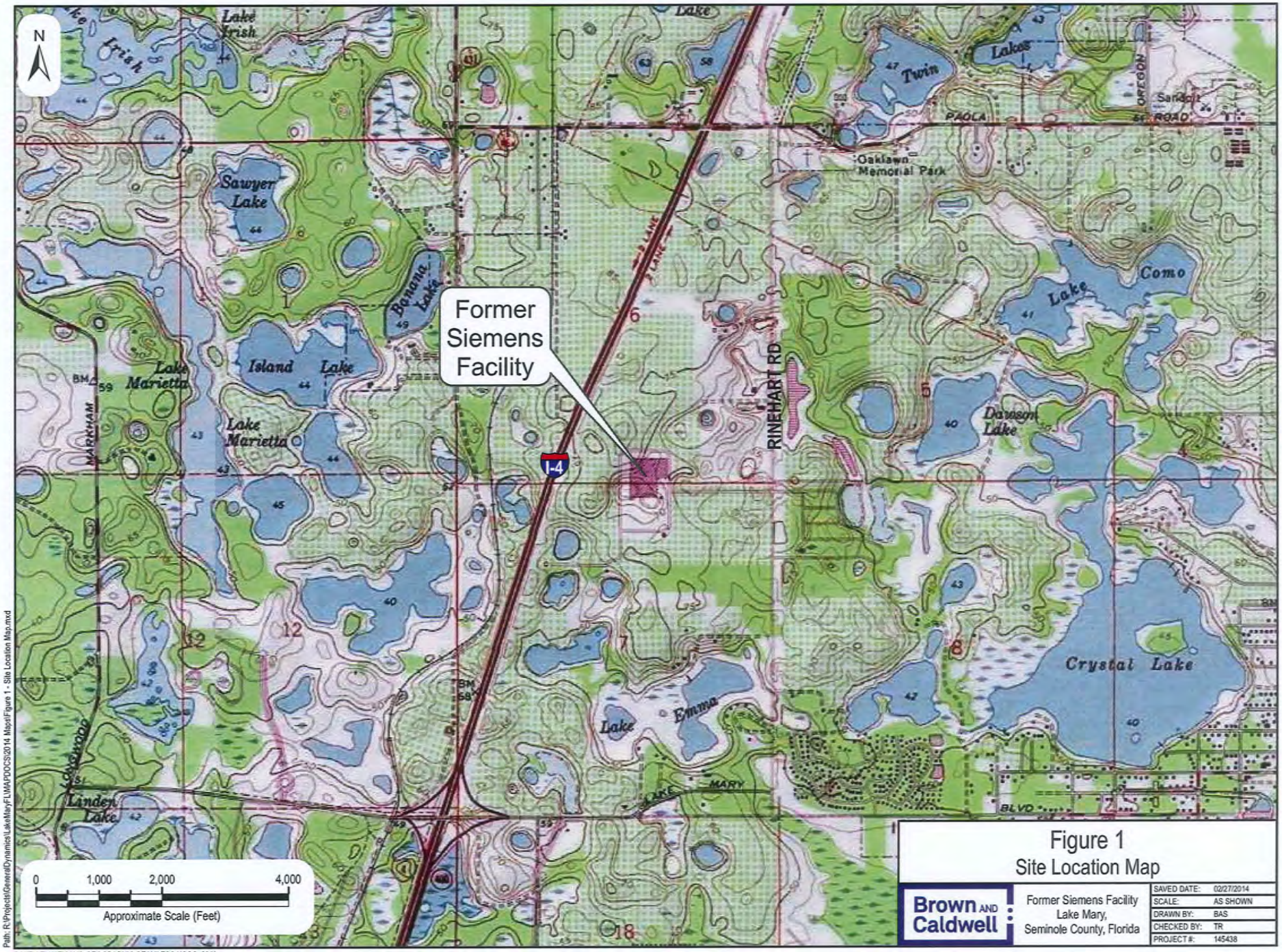
5.2.4 Groundwater Level Monitoring

Water level data will be collected from SAS and FAS monitoring wells to provide data needed to prepare appropriate potentiometric maps. Water levels will be measured in each of the SAS and FAS monitoring well sampled under Section 5.2.3, as well as in six additional FAS monitoring wells (FAS-10, FAS-24, FAS-32, FAS-33, FAS-40, and FAS-41). The depth to water will be measured during each sampling event prior to initiating any purging or sampling activities, and water elevations will be calculated based on surveyed well casing elevations.

5.2.5 Reporting

An annual report presenting the 2014 data will be submitted to the FDEP by March 31, 2015. The report will provide the following:

- Tabulated chemical and water level data for the groundwater treatment system samples, recovery wells and monitoring wells;
- Full analytical laboratory reports;
- Potentiometric maps of the SAS and FAS;
- Maps showing the extent of 1,1-DCE and 1,4-dioxane above the GCTLs in the SAS and FAS and the COC concentrations at each well sampled; and
- A summary of the work performed over the previous year, the work planned for the following year, and general observations regarding the progress of the remedy.



Path: R:\Projects\GeneralDynamics\LakeMaryFL\MAPDOCS\2014 Maps\Figure 1 - Site Location Map.mxd

SOURCE: NATIONAL GEOGRAPHIC SEAMLESS USGS, 2010

Figure 1
Site Location Map

Brown AND Caldwell

Former Siemens Facility
Lake Mary,
Seminole County, Florida

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Figure 2
Parcel Layout

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Lake Mary, Seminole County, Florida

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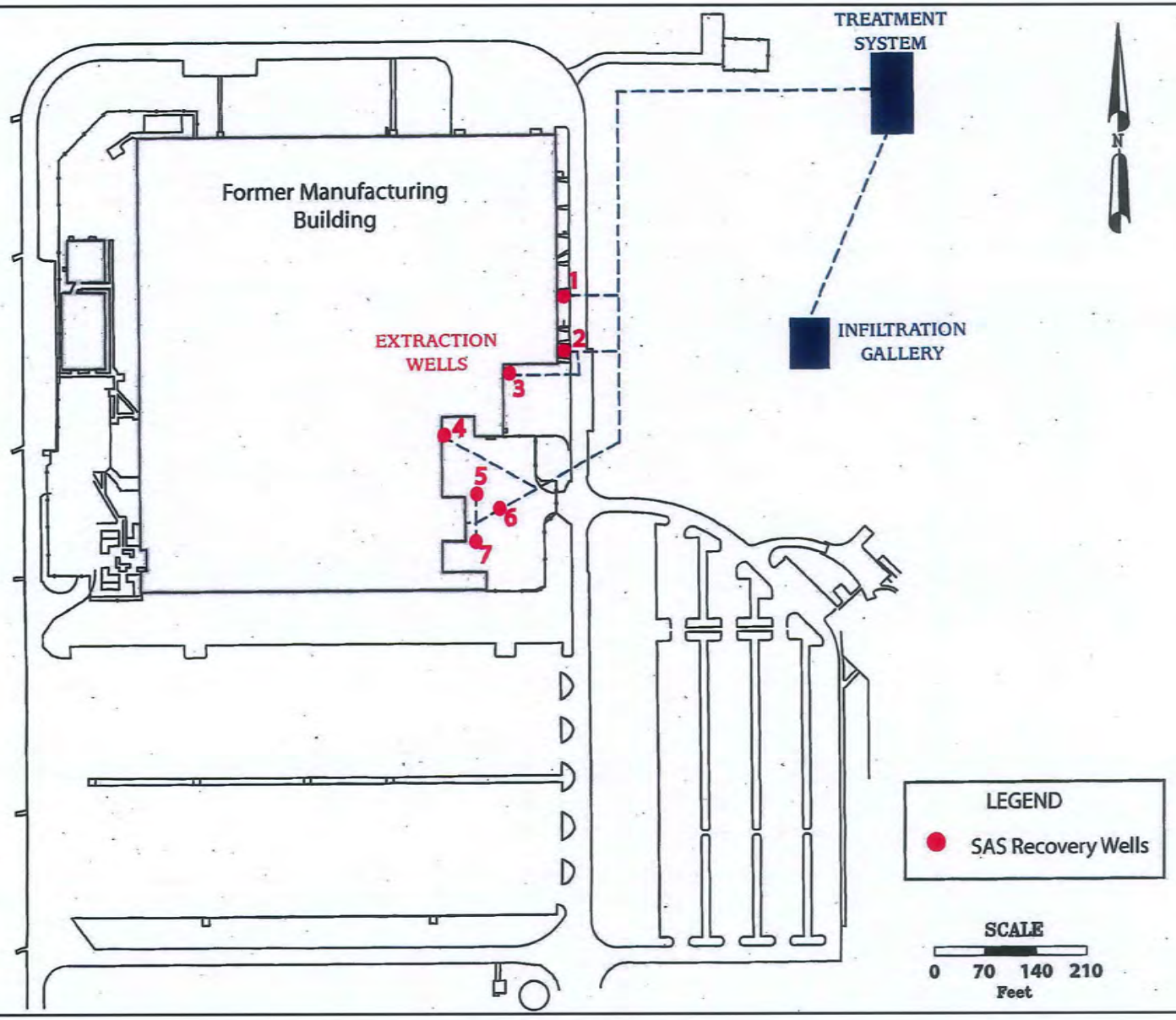

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Seminole County, Florida

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Figure 3
Groundwater Extraction and Treatment System Layout
Former Siemens Facility
Lake Mary, Florida

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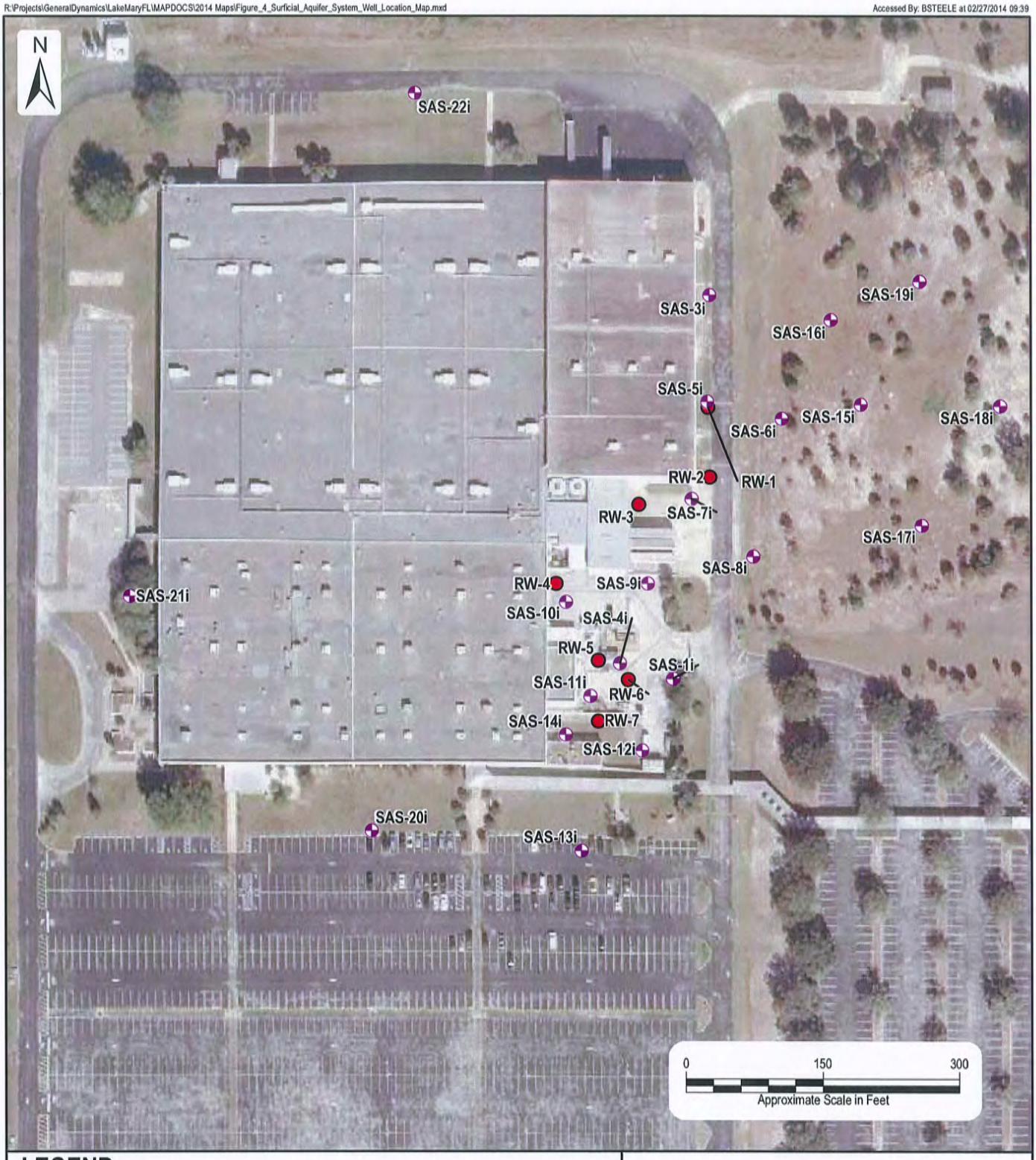

LEGEND

- SAS Monitoring Well
- Groundwater Recovery Well

Figure 4
Surficial Aquifer System
Well Location Map

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Former Siemens Facility
Lake Mary,
Seminole County, Florida

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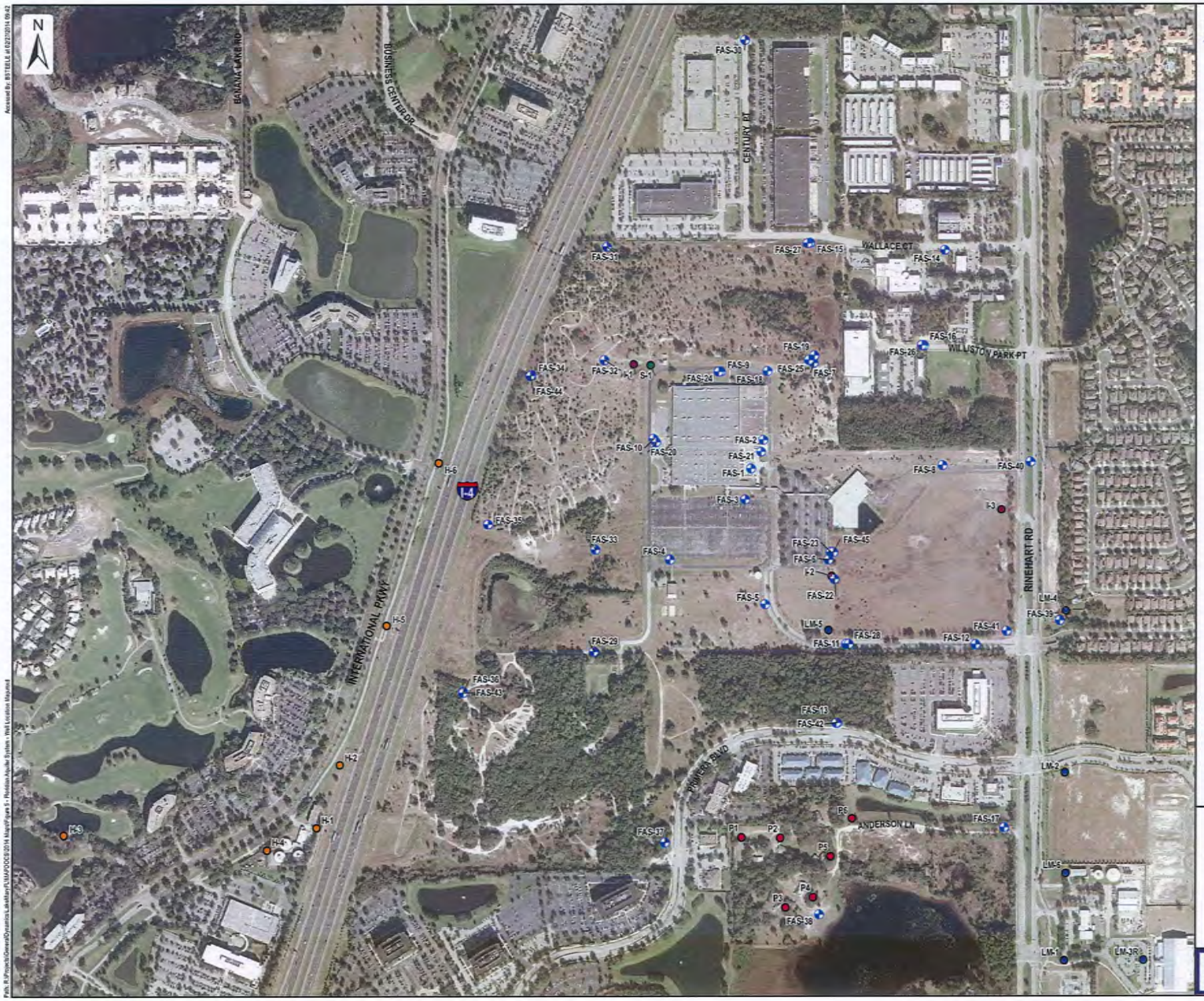

LEGEND

- FAS Monitoring Wells
- Heathrow - Seminole County Supply Wells
- Site Irrigation Well
- City of Lake Mary Supply Well
- Private Well
- Site Supply Well

0 600 1,200 1,800

Approximate Scale in Feet

Figure 5

Floridan Aquifer System
Well Location Map

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Former Siemens Facility
Lake Mary, Florida

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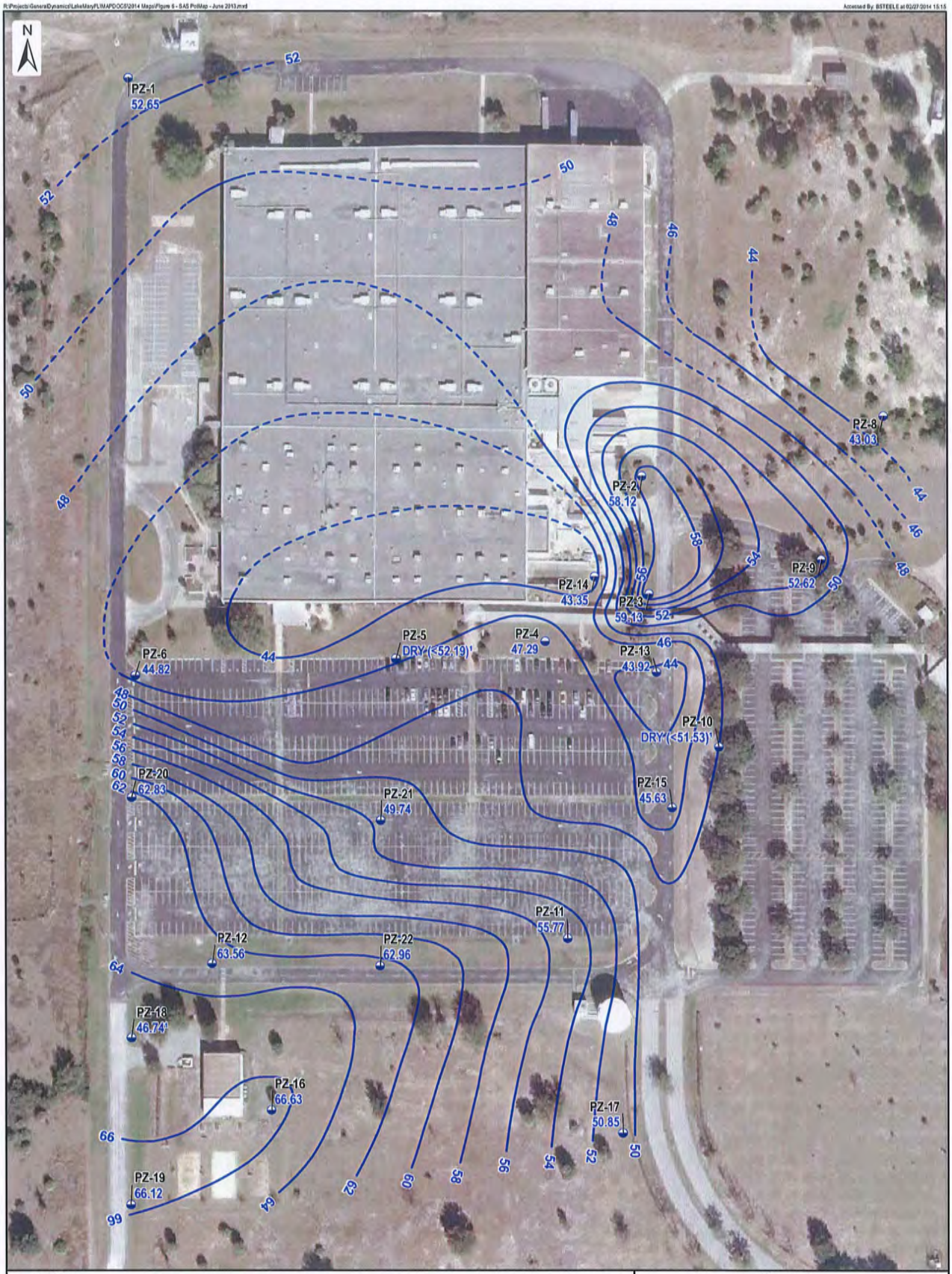

LEGEND

- 43.21 Groundwater Elevation (Feet NGVD29)
- Piezometric Contour (Feet NGVD29)
- Estimated Piezometric Contour (Feet NGVD29)
- SAS Piezometer
- ¹ Piezometer was not used to contour surface

0 125 250 375
Approximate Scale in Feet

Figure 6
Surficial Aquifer System
Piezometric Water Levels
June 19, 2013

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Former Siemens Facility
Lake Mary, Seminole County, Florida

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LEGEND

- 43.21 Groundwater Elevation (Feet NGVD29)
- Potentiometric Contour (Feet NGVD29)
- Estimated Potentiometric Contour (Feet NGVD29)
- SAS Monitoring Well
- Recovery Well

0 125 250 375
Approximate Scale in Feet

Figure 7
Surficial Aquifer System
Intermediate Zone
Potentiometric Water Levels
June 19, 2013

Brown AND Caldwell

Former Siemens Facility
Lake Mary, Seminole County, Florida

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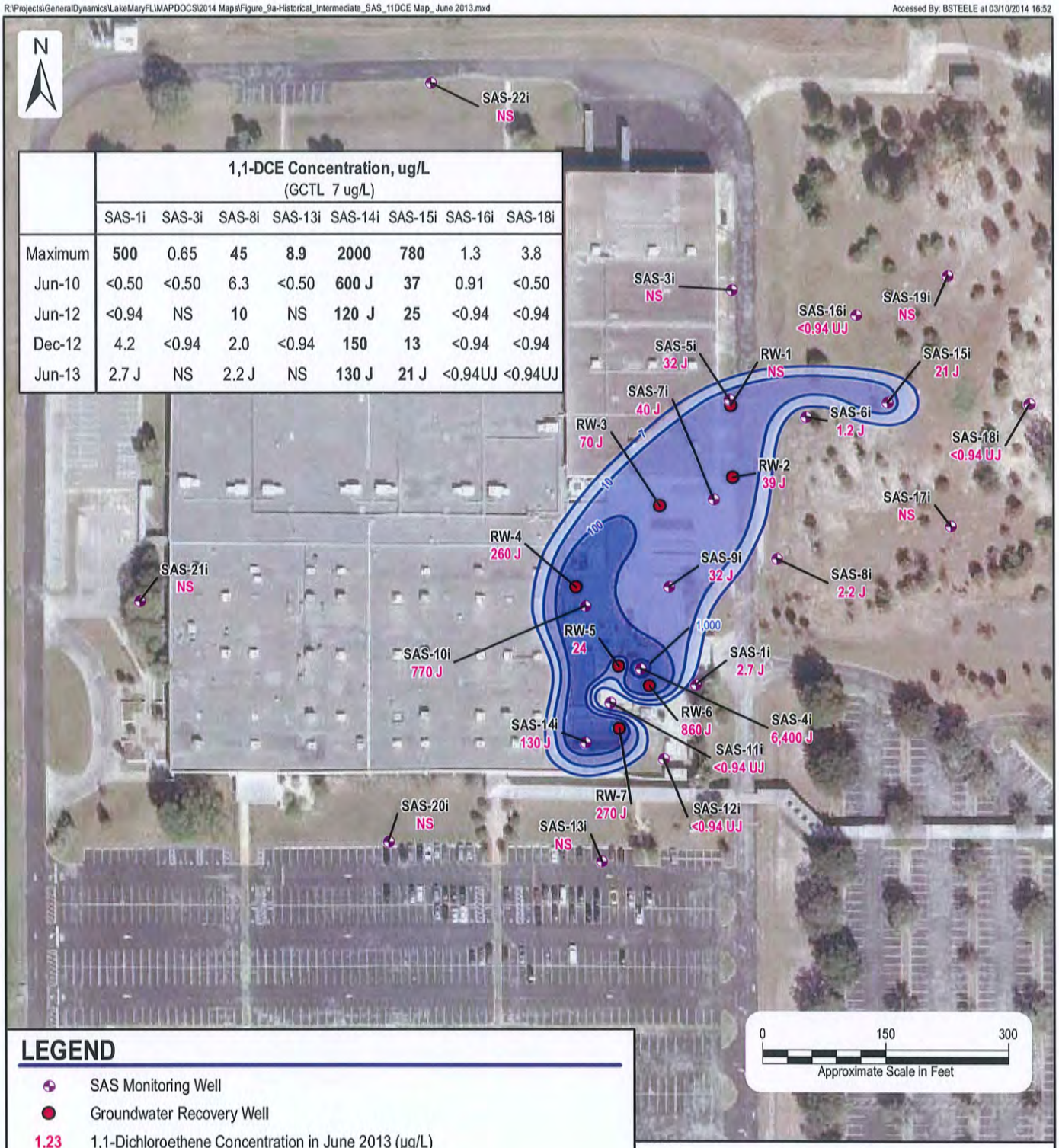
	1,1-DCE Concentration, ug/L (GCTL 7 ug/L)							
	SAS-1i	SAS-3i	SAS-8i	SAS-13i	SAS-14i	SAS-15i	SAS-16i	SAS-18i
Maximum	**500**	0.65	**45**	**8.9**	**2000**	**780**	1.3	3.8
Jun-10	<0.50	<0.50	6.3	<0.50	**600 J**	**37**	0.91	<0.50
Jun-12	<0.94	NS	**10**	NS	**120 J**	**25**	<0.94	<0.94
Dec-12	4.2	<0.94	2.0	<0.94	**150**	**13**	<0.94	<0.94
Jun-13	2.7 J	NS	2.2 J	NS	**130 J**	**21 J**	<0.94UJ	<0.94UJ



LEGEND

- SAS Monitoring Well
- Groundwater Recovery Well
- 1.23 — 1,1-Dichloroethene Concentration in June 2013 (µg/L)
- <0.94 — 1,1-Dichloroethene Concentration Below Reporting Limit
- NS — Not Sampled
- J — Result is an estimated value
- UJ — Analyte was not detected at the limit of detection; result is an estimated value.

1,1-Dichloroethene Concentration (µg/L)

- 7 to 10 µg/L
- 10 to 100 µg/L
- 100 to 1,000 µg/L
- 1,000 to 10,000 µg/L

Concentrations shown in **BOLD** exceed the GCTL

Figure 9a

Historical 1,1-Dichloroethene Concentrations in SAS Wells in the Current Monitoring Program

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Former Siemens Facility
Lake Mary,
Seminole County, Florida

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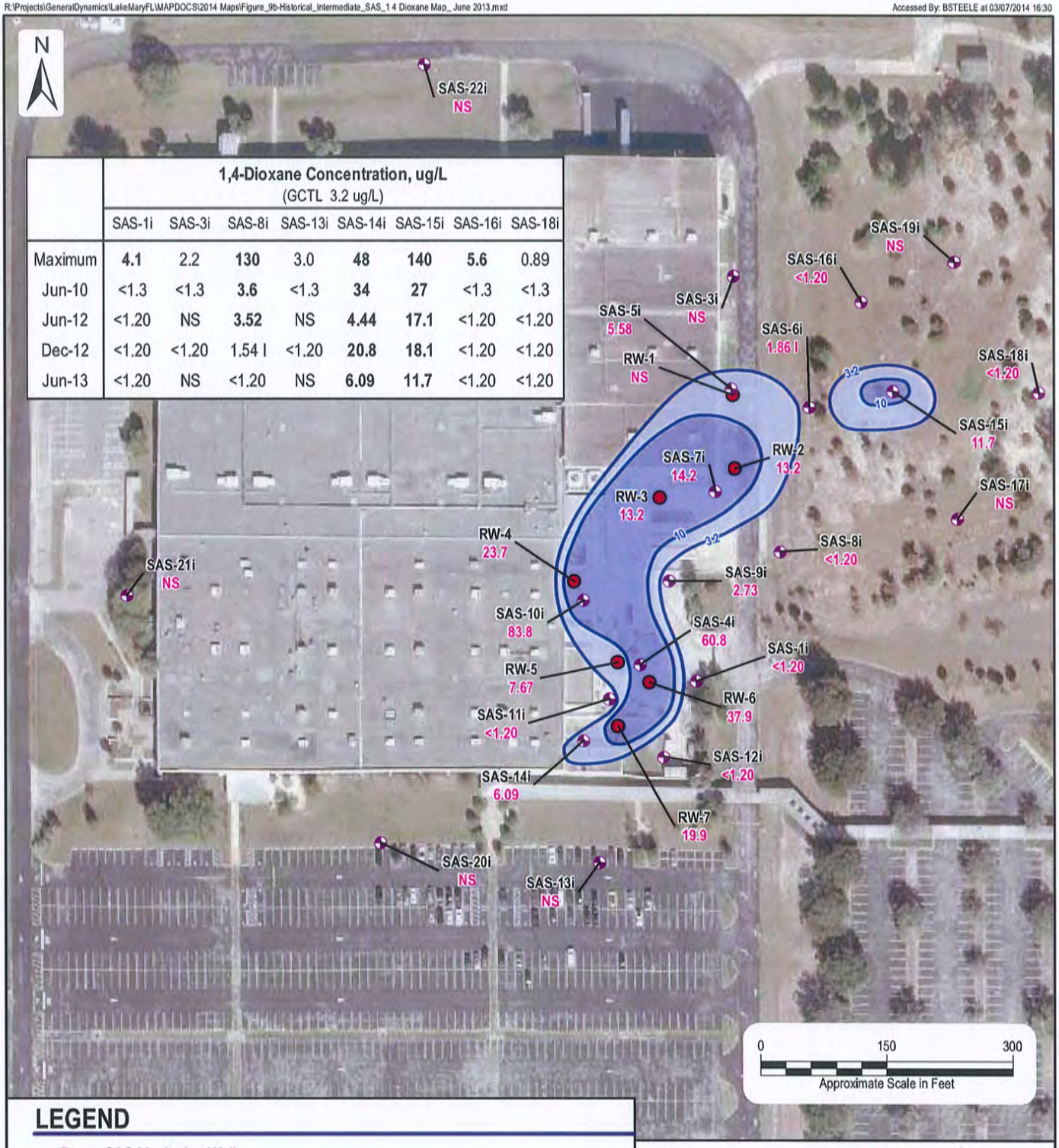

	1,4-Dioxane Concentration, ug/L (GCTL 3.2 ug/L)							
	SAS-1i	SAS-3i	SAS-8i	SAS-13i	SAS-14i	SAS-15i	SAS-16i	SAS-18i
Maximum	**4.1**	2.2	**130**	3.0	**48**	**140**	**5.6**	0.89
Jun-10	<1.3	<1.3	**3.6**	<1.3	**34**	**27**	<1.3	<1.3
Jun-12	<1.20	NS	**3.52**	NS	**4.44**	**17.1**	<1.20	<1.20
Dec-12	<1.20	<1.20	1.54 I	<1.20	**20.8**	**18.1**	<1.20	<1.20
Jun-13	<1.20	NS	<1.20	NS	**6.09**	**11.7**	<1.20	<1.20

LEGEND

- SAS Monitoring Well
- Groundwater Recovery Well
- 1.23 — 1,4-Dioxane Concentration in June 2013 (µg/L)
- <1.20 — 1,4-Dioxane Concentration Below Reporting Limit
- NS — Not Sampled
- I — Reported value is between the lab detection limit and the practical qualtitation limit

1,4-Dioxane Concentration (µg/L)

- 3.2 to 10 µg/L
- 10 to 100 µg/L

Concentrations shown in **BOLD** exceed the GCTL

Figure 9b
Historical 1,4-Dioxane Concentrations in SAS Wells in the Current Monitoring Program

Brown AND Caldwell

Former Siemens Facility
Lake Mary,
Seminole County, Florida

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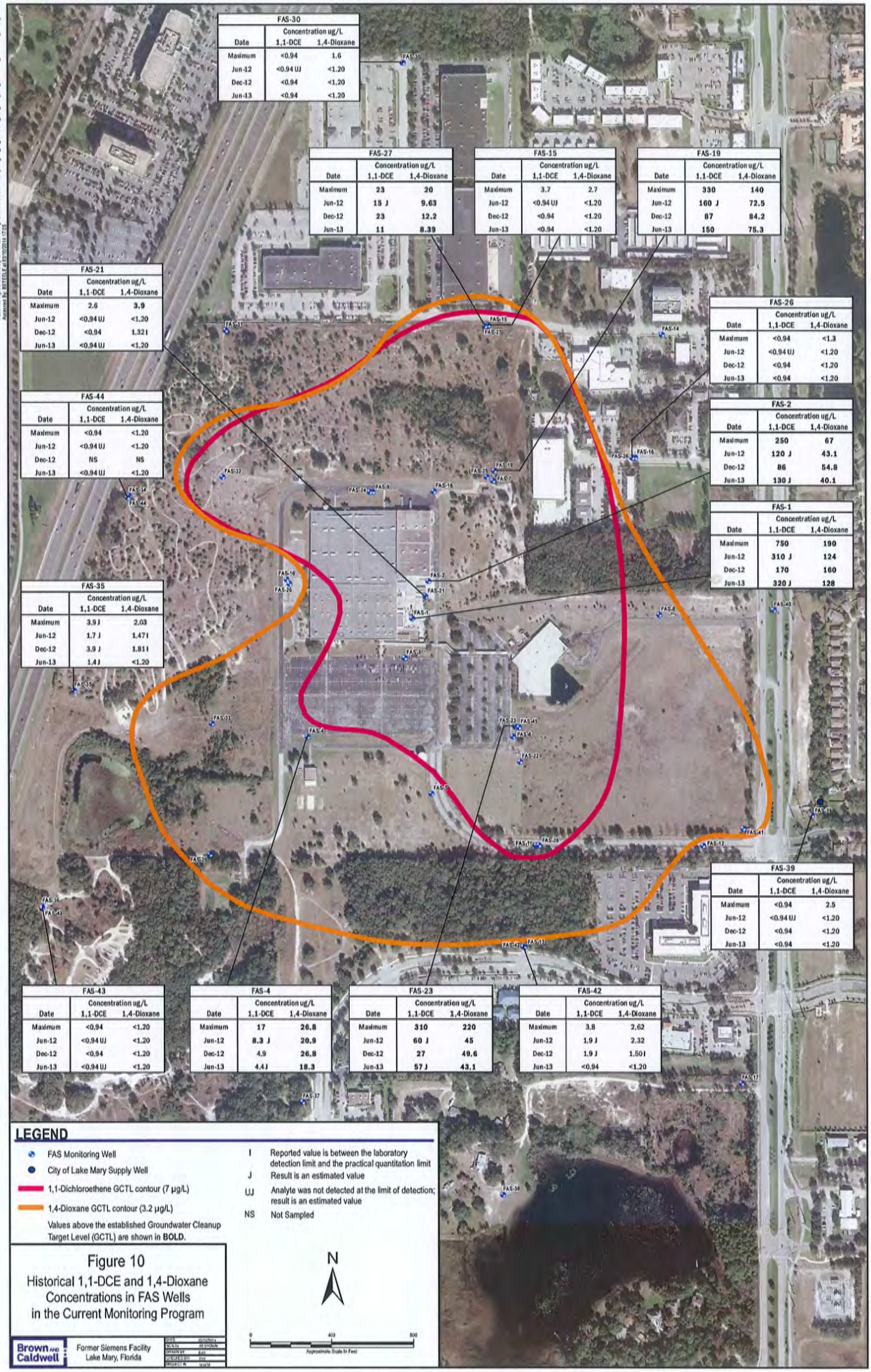
FAS-30
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum <0.94 1.6
Jun-12 <0.94 UJ <1.20
Dec-12 <0.94 <1.20
Jun-13 <0.94 <1.20
FAS-27
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 23 20
Jun-12 15 J 9.63
Dec-12 23 12.2
Jun-13 11 8.39
FAS-15
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 3.7 2.7
Jun-12 <0.94 UJ <1.20
Dec-12 <0.94 <1.20
Jun-13 <0.94 <1.20
FAS-19
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 330 140
Jun-12 160 J 72.5
Dec-12 87 84.2
Jun-13 150 75.3
FAS-21
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 2.6 3.9
Jun-12 <0.94 UJ <1.20
Dec-12 <0.94 1.32 I
Jun-13 <0.94 UJ <1.20
FAS-26
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum <0.94 <1.3
Jun-12 <0.94 UJ <1.20
Dec-12 <0.94 <1.20
Jun-13 <0.94 <1.20
FAS-44
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum <0.94 <1.20
Jun-12 <0.94 UJ <1.20
Dec-12 NS NS
Jun-13 <0.94 UJ <1.20
FAS-2
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 250 67
Jun-12 120 J 43.1
Dec-12 86 54.8
Jun-13 130 J 40.1
FAS-1
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 750 190
Jun-12 310 J 124
Dec-12 170 160
Jun-13 320 J 128
FAS-35
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 3.9 J 2.03
Jun-12 1.7 J 1.47 I
Dec-12 3.9 J 1.81 I
Jun-13 1.4 J <1.20
FAS-39
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum <0.94 2.5
Jun-12 <0.94 UJ <1.20
Dec-12 <0.94 <1.20
Jun-13 <0.94 <1.20
FAS-43
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum <0.94 <1.20
Jun-12 <0.94 UJ <1.20
Dec-12 <0.94 <1.20
Jun-13 <0.94 UJ <1.20
FAS-4
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 17 26.8
Jun-12 8.3 J 20.9
Dec-12 4.9 26.8
Jun-13 4.4 J 18.3
FAS-23
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 310 220
Jun-12 60 J 45
Dec-12 27 49.6
Jun-13 57 J 43.1
FAS-42
Concentration ug/L
Date 1,1-DCE 1,4-Dioxane
Maximum 3.8 2.62
Jun-12 1.9 J 2.32
Dec-12 1.9 J 1.50 I
Jun-13 <0.94 <1.20
LEGEND
FAS Monitoring Well
City of Lake Mary Supply Well
1,1-Dichloroethene GCTL contour (7 µg/L)
1,4-Dioxane GCTL contour (3.2 µg/L)
Values above the established Groundwater Cleanup Target Level (GCTL) are shown in BOLD.
I Reported value is between the laboratory detection limit and the practical quantitation limit
J Result is an estimated value
UJ Analyte was not detected at the limit of detection; result is an estimated value
NS Not Sampled
N
0 400 800
Approximate Scale In Feet
Figure 10
Historical 1,1-DCE and 1,4-Dioxane Concentrations in FAS Wells in the Current Monitoring Program
Brown AND Caldwell
Former Siemens Facility
Lake Mary, Florida