Department of Water Resources

684 Winder Highway • Lawrenceville, GA 30045-5012
678.376.6700
www.gwinnettcounty.com

gwinnettcounty

October 3, 2014

Mr. David Brownlee
Unit Coordinator, Response and Remediation Program
Georgia Department of Natural Resources, Environmental Protection Division (EPD)
2 Martin Luther King Jr. Drive, S.E., Suite 1054 East
Atlanta, Georgia 30334

Subject: Voluntary Remediation Program Application and Corrective Action Plan
Gwinnett County Fire Station No. 19

Dear Mr. Brownlee:

As previously discussed in our meeting on July 15, 2014, and in response to EPD's May 15, 2014 letter regarding arsenic detected in soil at Fire Station No. 19, Gwinnett County wishes to enter this property into EPD's Voluntary Remediation Program (VRP). Enclosed for EPD review are a VRP Application and a Corrective Action Plan (CAP). The application includes the required attachments, such as the application fee, and the CAP presents the Conceptual Site Model and proposed plan.

We appreciate your assistance with this matter and look forward to working with you through the process. Feel free to contact me directly at 678-376-6953, if you have any questions.

Sincerely,
GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES

Richard Schoeck, P.E., PMP
Division Director of Engineering & Construction

Enclosure

cc: Tom Duffey, CDM Smith
J.C. Lan, GCDWR
John Reichling, CDM Smith

Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION					
COMPANY NAME	Gwinnett County				
CONTACT PERSON/TITLE	Dan Hansen, Division Director of Fire Services				
ADDRESS	408 Hurricane Shoals Road NE, Lawrenceville, GA 30046				
PHONE	(678) 518-4832	**FAX**		**E-MAIL**	Dan.Hansen@gwinnettcounty.com

GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP					
NAME	James Thomas Duffey			**GA PE/PG NUMBER**	PG000899
COMPANY	CDM Smith				
ADDRESS	3715 Northside Parkway NW #300/400, Atlanta, GA 30327				
PHONE	404-720-1400	**FAX**	404-720-1379	**E-MAIL**	duffeyjt@cdmsmith.com

APPLICANT'S CERTIFICATION

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

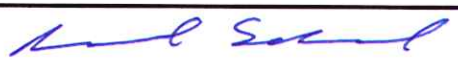
(1) The property must have a release of regulated substances into the environment;
(2) The property shall not be:
- (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
- (B) Currently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

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

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

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

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

APPLICANT'S SIGNATURE			
APPLICANT'S NAME/TITLE (PRINT)	**Richard Schoeck, PE, PMP, Division Director of Project Controls, Gwinnett County DWR**	**DATE**	10/3/14

QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form)			
HAZARDOUS SITE INVENTORY INFORMATION (if applicable)			
HSI Number	10844	Date HSI Site listed	12/6/2013
HSI Facility Name	North Berkeley Lake Road Site	NAICS CODE	922160
PROPERTY INFORMATION			
TAX PARCEL ID	6267 028	PROPERTY SIZE (ACRES)	3.0
PROPERTY ADDRESS	3275 N. Berkeley Lake Rd. NE		
CITY	Duluth	COUNTY	Gwinnett
STATE	Georgia	ZIPCODE	30096
LATITUDE (decimal format)	33.982638	LONGITUDE (decimal format)	-84.169709
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Gwinnett County	PHONE # (678) 518-4800	
MAILING ADDRESS	408 Hurricane Shoals Rd NE		
CITY	Lawrenceville	STATE/ZIPCODE	GA 30046-4406

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)
1.	**$5,000 APPLICATION FEE** IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)	**Enclosed**	
2.	**WARRANTY DEED(S)** FOR QUALIFYING PROPERTY.	**Enclosed**	
3.	**TAX PLAT** OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).	**Enclosed**	
4.	**ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES** OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	**Enclosed**	
5.	The VRP participant's initial plan and application must include, using all reasonably available current information to the extent known at the time of application, a graphic three-dimensional preliminary conceptual site model (CSM) including a preliminary remediation plan with a table of delineation standards, brief supporting text, charts, and figures (no more than 10 pages, total) that illustrates the site's surface and subsurface setting, the known or suspected source(s) of contamination, how contamination might move within the environment, the potential human health and ecological receptors, and the complete or incomplete exposure pathways that may exist at the site; the preliminary CSM must be updated as the investigation and remediation progresses and an up-to-date CSM must be included in each semi-annual status report submitted to the director by the participant; a **PROJECTED MILESTONE SCHEDULE** for investigation and remediation of the site, and after enrollment as a participant, must update the schedule in each semi-	**Provided in the Corrective Action Plan (CAP)**	

	annual status report to the director describing implementation of the plan during the preceding period. A Gantt chart format is preferred for the milestone schedule. The following four (4) generic milestones are required in all initial plans with the results reported in the participant's next applicable semi-annual reports to the director. The director may extend the time for or waive these or other milestones in the participant's plan where the director determines, based on a showing by the participant, that a longer time period is reasonably necessary:		
5.a.	Within the first 12 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern on property where access is available at the time of enrollment;	**Complete as documented in the CAP**	
5.b.	Within the first 24 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern extending onto property for which access was not available at the time of enrollment;	**Waived by EPD per meeting on July 15, 2014**	
5.c.	Within 30 months after enrollment, the participant must update the site CSM to include vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions; and	**Preliminary concepts are discussed in the CAP. Final design and development of a cost estimate will occur following the additional characterization noted in the CAP.**	
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	**Future task following CAP implementation**	

6.	**SIGNED AND SEALED PE/PG CERTIFICATION** AND SUPPORTING DOCUMENTATION: "I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances. Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." J. Thomas Duffey PG000899 Printed Name and GA PE/PG Number 10-7-2014 Date Signature and Stamp		

ADDITIONAL QUALIFYING PROPERTIES (COPY THIS PAGE AS NEEDED)

PROPERTY INFORMATION			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

PROPERTY INFORMATION			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

PROPERTY INFORMATION			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

Return to
WANDA HOWARD
LAW Dept

FILED & RECORDED
CLERK SUPERIOR COURT
GWINNETT COUNTY, GA.
1989 APR 11 PM 4:23
GARY R. YATES, CLERK

BOOK 5422 PAGE 222

WARRANTY DEED

STATE OF GEORGIA,

COUNTY OF GWINNETT

THIS INDENTURE made this 11th day of April, in the year of our Lord One Thousand, Nine Hundred and Eighty Nine, between

EQUIFAX, INC.

of the State of Georgia, County of Gwinnett of the first part and

GWINNETT COUNTY, GEORGIA, a political subdivision

of the State of Georgia and County of Gwinnett of the second part.

WITNESSETH: That the said party of the first part, for and in consideration of the sum of Other Valuable Consideration and Ten and NO/100 ($10.00) DOLLARS in hand paid at and before the sealing and delivery of these presents does grant, bargain, sell and convey unto the said party of the second part, its successors and assigns, the following property:

All that tract or parcel of land lying and being in Land Lot 267 of the 6th District of Gwinnett County, Georgia, containing 3.00 acres and being Tax Map Parcel No. 6-267-028 as more particularly described in Exhibit "A" attached hereto and incorporated herein by reference.

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

And the said party of the first part, for its successors and assigns will warrant and forever defend the right and title to the above described property unto the said party of the second part, its successors and assigns, against the lawful claims of all persons whomsoever, except for those matters set forth in Exhibit "B" hereto.

IN WITNESS WHEREOF, That the said party of the first part has hereunto set its hand and affixed its seal the day and year above written.

Signed, sealed and delivered in the presence of:

Unofficial Witness

Notary Public, State of Ga.

Notary Public, Georgia, State at Large
My Commission Expires April 20, 1989

EQUIFAX INC.

By: _____ (SEAL)
Title:

Attest: _____
Title: William B. Fokes, III
Assistant Secretary

GWINNETT CO., GEORGIA
REAL ESTATE TRANSFER TAX
$ None
4-11-89
Date
Clerk of Superior Court

22308

Exhibit "A"

ALL THAT TRACT OR PARCEL OF LAND lying and being in Land Lot 267 of the 6th District, Gwinnett County, Georgia and being more particularly described as follows:

TO FIND THE TRUE POINT OF BEGINNING, commence at a point formed by the intersection (if such intersection formed an angle instead of a curve) of the southwesterly right-of-way of North Berkeley Lake Road (a 70 foot right-of-way) with the northwesterly right-of-way of Blue Ridge Parkway (variable right-of-way); run thence north 30 degrees 30 minutes 30 seconds west along the southwesterly right-of-way of North Berkeley Lake Road 477.38 feet to a point; run thence north 30 degrees 22 minutes 00 seconds west along the southwesterly right-of-way of North Berkeley Lake Road 404.31 feet to an iron pin set; run thence north 30 degrees 22 minutes 00 seconds west along the southwesterly right of way of North Berkeley Lake Road 366.14 feet to an iron pin set and THE TRUE POINT OF BEGINNING; from THE TRUE POINT OF BEGINNING as thus established and leaving the southwesterly right-of-way of North Berkeley Lake Road, run thence south 59 degrees 05 minutes 30 seconds west 580.64 feet to an iron pin set; run thence north 30 degrees 27 minutes 45 seconds west 225.00 feet to an iron pin found on the Berkeley Lake city limits line and the northwest line of Land Lot 267; run thence north 59 degrees 05 minutes 30 seconds east along the Berkeley Lake city limits line and the northwest line of Land Lot 267, 581.02 feet to an iron pin found along the southwesterly right-of-way of North Berkeley Lake Road; run thence south 30 degrees 22 minutes 00 seconds east along the southwesterly right-of-way of North Berkeley Lake Road 225.00 feet into an iron pin set and THE TRUE POINT OF BEGINNING; containing 3.000 acres and being more particularly shown as Block "B" Lot 10 on Survey of Property for Gwinnett County Fire Service Fire Station No. 25 prepared by Urban Engineers, Inc. Nelson F. Goetz, Georgia Registered Land Surveyor No. 1879, dated October 21, 1988, which survey is incorporated herein by this reference.

Property Key

Gwinnett County Property
Parcel 6267 028

0 40 80 160 240 320
Feet

N
W E
S

CORRECTIVE ACTION PLAN

Fire Station 19
Gwinnett County, Georgia

Prepared for Gwinnett County

October 2014

CDM Smith

Table of Contents

Section 1 Introduction 1-1

1.1 Site Location and Description 1-1
1.2 Surrounding Land Use 1-1
1.3 Regulatory and Environmental History 1-1
1.4 Environmental Setting 1-2

Section 2 Site Characterization 2-1

2.1 Groundwater Investigation 2-1
2.1.1 Groundwater Monitoring Well Installation 2-1
2.1.2 Groundwater Results 2-1
2.2 Soil Investigation 2-1
2.2.1 Soil Borings 2-1
2.2.2 Soil Results 2-2
2.3 Conceptual Site Model 2-2

Section 3 Risk Reduction Standards 3-1

3.1 Type 1 Residential Soil RRS 3-1
3.2 Type 3 Non-Residential Soil RRS 3-1
3.3 Type 4 Non-Residential Soil RRS 3-1
3.4 Type 5 Construction Worker Soil RRS 3-1

Section 4 Corrective Action Assessment and Scope 4-1

4.1 Additional Soil Arsenic Characterization 4-1
4.1.1 EMP Analyses 4-1
4.1.2 IVBA Testing 4-1
4.2 Corrective Action Scope 4-2
4.2.1 Environmental Covenant 4-2
4.2.2 Fencing 4-2
4.2.3 Surface Soil Capping 4-2
4.2.4 Surface Soil Removal and Backfill 4-3
4.3 Schedule 4-4

Section 5 References 5-1

List of Figures

Figure 1-1: Site Location and Surrounding Land Use
Figure 1-2: Site Layout
Figure 2-1: Monitoring Well Locations
Figure 2-2: Soil Sample Locations
Figure 2-3: Site Conceptual Exposure Model
Figure 3-1: Surface Soil Arsenic Results
Figure 4-1: Milestone Schedule

List of Tables

Table 2-1: Surface and Subsurface Soil Arsenic Results
Table 2-2: Soil Arsenic Statistical Summary
Table 3-1: Subsurface Soil Type 5 RRS - Construction Worker

Appendices

Appendix A Groundwater Laboratory Report
Appendix B Soil Laboratory Report
Appendix C Arsenic Soil Data for Surrounding Properties

Section 1
Introduction

This Corrective Action Plan (CAP) has been prepared by CDM Smith Inc. for Gwinnett County to meet the requirements of the Georgia Voluntary Remediation Program (VRP) for Fire Station 19 (the "site"). The fire station has been included on the Hazardous Site Inventory (HSI) as part of the North Berkeley Lake Road Site, HSI #10844, which includes several properties in addition to the fire station.

A property description, environmental history, and environmental setting of the site are provided below in this introduction section. Current environmental conditions are described in **Section 2**. Potential Risk Reduction Standards (RRSs) for corrective action at this site are presented in **Section 3**. **Section 4** describes proposed additional characterization activities and potential corrective actions for this site. Section 4 also includes the expected timeframe for achieving the corrective action milestones and submittal of a Compliance Status Report (CSR).

1.1 Site Location and Description

Fire Station 19 is located at 3275 North Berkeley Road NE in Gwinnett County, Georgia (**Figure 1-1**). The property is a 3.0-acre land tract located southwest of Duluth, Georgia. Property access is from North Berkeley Road east of the property. The property consists of one main building/garage for the fire station, a fueling depot for county vehicles, a covered pavilion with picnic benches, and miscellaneous small structures (e.g., a storage shed). In addition to the structures, the property has paved and unpaved areas. Fire Station 19 is bounded to the northeast by North Berkeley Lake Road and to the southwest by Peachtree Industrial Boulevard. The site layout is shown on **Figure 1-2**.

1.2 Surrounding Land Use

The immediate site vicinity consists of mixed industrial/commercial land uses. The adjacent properties include Diamond Crystal Brands to the south, Suzanna's Kitchen to the southeast, and Berkeley Lake Village shopping plaza to the north. The Gwinnett Regional Distribution Center (GRDC) is across North Berkeley Lake Road to the east. All of these properties are listed on the HSI as part of the North Berkeley Lake Road Site under site number 10844. These properties are shown on Figure 1-1.

1.3 Regulatory and Environmental History

The Gwinnett County Department of Water Resources (GCDWR) was in the planning phase to install a gravity sewer line to convey wastewater from Suzanna's Kitchen through the Fire Station 19 property and terminate adjacent to the Gwinnett Regional Distribution Center (GRDC) at an existing sewer line (Figure 1-2). During planning, GCDWR found that GRDC was listed on the HSI because of arsenic in soil and groundwater. As a precaution, the GCDWR collected ten soil samples for arsenic analyses from five soil borings located along the proposed sewer route. Arsenic was detected in the soil samples at concentrations that exceed the Hazardous Site Response Act (HSRA) soil notification concentration of 41 mg/kg for arsenic.

GCDWR submitted the required release notification to EPD on May 3, 2013. On December 6, 2013, EPD notified GCDWR that the fire station had been placed on the HSI. Since that time, EPD has listed the additional neighboring properties on the HSI.

1.4 Environmental Setting

The site is located in the Piedmont Physiographic province, which is characterized by gently rolling hills with rivers and ravines. The general site topography is relatively flat with most of the surface drainage being to the west toward a storm water retention pond and Berkeley Lake further to the west.

The site is underlain by unconsolidated saprolite that was derived from the in-place weathering of the underlying metamorphic crystalline bedrock. Bedrock has been encountered on the site at depths ranging from approximately 5 feet to over 40 feet.

Groundwater in the vicinity of the site occurs in the saprolite where this zone is thick enough and within fractures of the crystalline bedrock. Groundwater flow in the saprolite is controlled primarily by topography with groundwater flow mirroring surface drainage patterns. However, the topography of the subsurface crystalline rock surface can cause deviations in the presumed groundwater flow directions as valleys and ridges on the rock surface can direct groundwater flow.

Section 2
Site Characterization

Characterization activities at the site have focused on determining the extent of arsenic in soil and groundwater. For arsenic characterization purposes, the HSRA residential, Type 1 RRS of 20 milligrams per kilogram (mg/kg) is included in the data tables of this section; however, the RRSs proposed for correction action are discussed in Section 3. The characterization results are summarized below.

2.1 Groundwater Investigation

2.1.1 Groundwater Monitoring Well Installation

CDM Smith installed two groundwater monitoring wells (MW-1 and MW-2) at locations shown on **Figure 2-1** on July 30, 2014. The wells are 2-inch, schedule 40 polyvinyl chloride pipe and were installed using standard well construction techniques. The construction of both wells is summarized below:

Parameter (feet below ground surface)	MW-1	MW-2
Total Depth	40	35
Screen Interval	35-40	30-35
Sand Interval	33-40	28-35
Bentonite Interval	31-33	26-28
Grout Interval	0-31	0-26
Depth to Water (Measured 8/5/14)	21.87	24.91

2.1.2 Groundwater Results

CDM Smith sampled MW-1 and MW-2 on August 5, 2014 using low-flow sampling techniques. A groundwater sample was collected from each well and delivered to Advanced Chemistry Labs (ACL) in Atlanta, Georgia, for arsenic analysis by method 6010C. The laboratory report for the groundwater analyses is provided in **Appendix A**. The arsenic results for both samples were below the laboratory's practical quantitation limit (PQL). The results indicate that arsenic in soil is not affecting groundwater at this site.

2.2 Soil Investigation

2.2.1 Soil Borings

CDM Smith completed 53 soil borings using a Geoprobe® rig on July 29, 2014. All boring were completed in unpaved areas of the site, and are shown on **Figure 2-2**. All borings were completed to a 4-foot depth. A surface soil sample (0 - 2 foot depth interval) was collected from each of these borings. In addition, subsurface samples were collected from half of the borings at a depth of four feet below ground surface.

2.2.2 Soil Results

Soil samples were analyzed for arsenic by ACL, and the laboratory report for the soil samples is provided in **Appendix B**. The arsenic results for the soil samples are shown on **Table 2-1.** The majority of the samples collected are above the Type 1 RRS of 20 mg/kg.

2.3 Conceptual Site Model

The source of the arsenic in soil is unknown. Reports by GRDC indicate that historical land use as farmland and associated chemical applications could be responsible for the arsenic. However, the arsenic concentrations would be expected to decrease with depth if this was the case, and the current data do not support decreasing arsenic concentrations with depth. **Table 2-2** includes statistical soil arsenic data summaries from the fire station and the available data from the surrounding properties. The complete database is in included in **Appendix C**.

As shown in Table 2-2, arsenic both on site and off site is higher at depths of 4 feet or more than in the 2-foot depth interval. Although the highest arsenic concentrations in soil have been reported on offsite properties, the means and 95% upper confidence levels (UCLs) are higher on the Fire Station 19 property. In all cases, the difference between the onsite and offsite mean and 95% UCL values is well below the standard deviations, indicating that these differences are not necessarily statistically significant.

It is also possible that the arsenic in soil is naturally occurring and associated with a localized occurrence of arsenic bearing minerals such as the sulfide mineral arsenopyrite, which is associated with Georgia's Piedmont Province. This could explain the relatively homogenous distribution of arsenic concentrations in soil coupled with irregular and sporadic spikes in arsenic concentrations.

The potential exposure pathways and receptors for the arsenic in soil at the fire station are shown on **Figure 2-3**. Currently, the most likely exposure pathways are dermal contact, ingestion, and inhalation of surface soil in unpaved areas for people that are on site and outdoors, including workers and trespassers. Indoor workers will generally be protected from surface soil contact. The site is comprised of both paved and unpaved areas, and the unpaved areas are generally well vegetated with grass. The impervious surfaces and vegetative cover generally minimize exposure to surface soil unless the ground is disturbed.

Construction activities, such as the planned sewer installation from Suzanna's Kitchen through the Fire Station 19 property, have the potential to expose construction workers to arsenic in soil through direct dermal contact, ingestion, or inhalation of dust. However, exposure to surface and subsurface soil due to construction activities will be short term. Additionally, the Gwinnett County Department of Water Resources included testing and exposure protection requirements in the construction documents for the upcoming sewer installation.

Section 3

Risk Reduction Standards

3.1 Type 1 Residential Soil RRS

The default Type 1 residential RRS for arsenic in soil is 20 mg/kg or background, whichever is higher. The Type 1 residential RRS is potentially applicable to surface soil at the fire station, although this is a non-residential property. This is because access to the property is not controlled and the current property uses require relatively free and unencumbered access for the County's fueling purposes and operation as a fire station.

3.2 Type 3 Non-Residential Soil RRS

The Type 3 non-residential RRS is also 20 mg/kg or background for arsenic in soil, whichever is higher. While the Type 3 RRS can be greater than the Type 1 RSS for some regulated substances, this is not case for arsenic because the default concentration listed in Table 2 of Appendix III applies.

3.3 Type 4 Non-Residential Soil RRS

The Type 4 non-residential RRS is a site-specific RRS. One RRS is applicable to all soil above the water table and is intended to protect groundwater from leaching. A second RRS is applicable to the top two feet of surface soil to protect human health. The non-residential Type 4 RRS for arsenic in surface soil is 38 mg/kg. This RRS was derived using the HSRA-prescribed procedure for determining default RRSs with HSRA-specified input values. The arsenic surface soil RRS was selected to be protective of onsite workers and trespassers that may enter the property. **Figure 3-1** shows the surface soil samples that exceed the arsenic RRSs. A Type 4 non-residential RRS for the protection of groundwater is not considered necessary for this property because groundwater sampling shows that the arsenic in soil has not leached into groundwater at detectable concentrations and human exposures to subsurface soil under the currently property uses are restricted to construction activities that may occur in the future. The construction worker RRS is described below.

3.4 Type 5 Construction Worker Soil RRS

The construction worker Type 5 RRS for arsenic in subsurface soil was calculated to be 881 mg/kg. As shown in Table 2-1, none of the soil samples exceeded the Type 5 RRS of 881 mg/kg. **Table 3-1** shows the derivation of the arsenic RRS for subsurface soil with the supporting input data. This RRS was derived using the HSRA-prescribed procedure for non-residential properties with input parameters specific to construction workers. The arsenic Type 5 RRS was selected to be protective of construction workers that are in direct contact with the soil. The main difference between the Type 4 and Type 5 RRS calculations is the exposure frequency and exposure duration.

The exposure frequency was calculated to be 174 days per year based on the EPA default of 250 working days in a year and using an average of 30.7% rain days per year for this area (UGA, 1957-1995). A 174 day per year exposure frequency is considered to be conservative because the expected duration of construction projects on this fully developed property is much less than a year. Likewise, the exposure duration was 1 year, which is consistent with EPA guidance for construction worker risk calculations.

Section 4

Corrective Action Assessment and Scope

Additional soil characterization is proposed to better define the site-specific features of an acceptable corrective action for the site. The additional soil characterization includes a determination as to whether the arsenic in soil is naturally occurring background or anthropogenic. The soil characterization will also evaluate the site-specific bioavailability of the arsenic in soil. The results of the additional characterization may be used to refine the soil RRSs or alternately, propose Type 5 RRSs for soil based on background and/or bioaccessibility.

4.1 Additional Soil Arsenic Characterization

Electron microprobe (EMP) analyses will be used to determine the form and species of the arsenic in soil, and these results will be used to assess whether or not the arsenic is naturally occurring. *In vitro* bioaccessibility (IVBA) testing will be used to determine potential human uptake of arsenic from the soil.

4.1.1 EMP Analyses

The EMP analyses employ an electron microscope capable of 300,000X magnification to view the structures and form of arsenic containing compounds in the soil. In addition, the EMP procedure uses an electron microprobe with a combined energy dispersive spectrometer and multiple wavelength dispersive spectrometers to evaluate the elemental composition of the arsenic-bearing particles in the sample down to 2 micron in size. A soil sample aliquot is placed in a small plastic mold and impregnated with epoxy. Once the epoxy is hardened, the sample is polished and carbon coated. Elemental concentrations are then determined for the arsenic species in the sample. In addition the form of the arsenic bearing particles (coating, attached, free, etc.), association with other minerals, and size are also recorded. Based on the measurements, the species of the arsenic bearing particle is identified. In addition, pictures (photomicrographs) of selected particles are recorded.

For each soil sample submitted for EMP analyses, approximately 100 results (individual arsenic bearing particles) are obtained (if possible) by scanning the entire molded sample at high magnification. EMP generally requires an arsenic concentration of approximately 100 mg/kg and CDM Smith objective is analyze a total of 10 soil samples by EMP. As a result, 20 soil samples will be collected using a hand auger and submitted to the EMP laboratory for total arsenic analyses to ensure that sufficient samples with 100 mg/kg or greater of arsenic are analyzed by EMP.

4.1.2 IVBA Testing

IVBA analysis is completed by extracting arsenic from soil samples using a fluid, temperature, and time that simulates digestion by gastric fluids in the human gut. The IVBA testing will be performed using EPA method 9200.1-86 on 10 split samples collected for the EMP analyses described above. The fraction of arsenic leached versus the total arsenic in the soil is used to calculate a bioavailability of the arsenic bearing soil samples in the human gut.. This bioavailabilty percent is then used to adjust the RRS assumptions related to arsenic uptake and set more appropriate cleanup goals. CDM Smith participated in the Environmental Security Technology Certification Program (Griffin and Lowney, 2012) that helped develop the IVBA method for arsenic and has technical experts in the analysis and

interpretation of results. CDM Smith has also successfully applied IVBA testing for arsenic for Federal, State, and overseas remediation projects.

4.2 Corrective Action Scope

Once the RRSs for the fire station soil are finalized with EPD, the detailed corrective action scope will be determined. The final corrective action scope is expected to be limited to surface soil considering that there are no anticipated exposures to subsurface soils outside of construction and since the Type 5 RRS is not exceeded at any subsurface soil location tested. Due to constraints at the site, which include access requirements, storm water management, underground utilities, land use, and topography, potential corrective actions are primarily limited to an environmental covenant (EC), fencing, capping, and soil removal and replacement. These concepts are outlined below, and their application will be developed in detail during the remedial design phase.

4.2.1 Environmental Covenant

An EC may be implemented and will be based on EPD's Uniform EC to ensure that appropriate pavement maintenance is performed. The EC will place restrictions on intrusive activities into soil by the fire station occupants and employees that use and service the county fueling station. While corrective action is not expected to be necessary for subsurface soil, the EC will require that any construction activities conducted on the property provide the necessary environmental controls, materials handling, and disposal requirements. The EC will also stipulate that construction activities that last more than one year require a project-specific safety plan and that EPD be notified of such activities.

4.2.2 Fencing

While the fire station will remain a non-residential property, the current property uses require relatively free and unencumbered access for the County's fueling purposes and operation as a fire station. It is, however, possible that controlled access can be established for select areas that exceed the Type residential RRS using fencing.

4.2.3 Surface Soil Capping

Exposed surface soil may be capped to mitigate arsenic exposure routes from surface soil. Capping material may be conventional impervious pavement (e.g., asphalt or concrete), pervious pavement (e.g., stone pavers), or pervious topsoil cap. The advantages and disadvantages of these options are detailed here.

Conventional Impervious Pavement Advantages

- Relatively inexpensive
- Easy to maintain
- Effectively mitigates exposures
- Minimal disturbance of contaminated soil
- No impact to underground utilities

Conventional Impervious Pavement Disadvantages

- Requires storm water management
- Topography can limit installation areas
- Loss of existing landscaping

Pervious Pavement Advantages

- Does not require storm water management
- More expensive than conventional
- Relatively easy to maintain
- Effectively mitigates exposures
- Minimal disturbance of contaminated soil
- No impact to underground utilities

Pervious Pavement Disadvantages

- Topography can limit installation areas
- Most existing landscaping still lost

Pervious Topsoil Cap Advantages

- Does not require storm water management
- Easy to maintain
- Effectively mitigates exposures
- Minimal disturbance of contaminated soil
- No impact to underground utilities
- Less loss of existing landscaping compared to paving

Pervious Topsoil Cap Disadvantages

- Topography can limit installation areas
- Required thickness may interfere with property uses and/or be impractical for certain areas

4.2.4 Surface Soil Removal and Backfill

Another corrective action option is to excavate the top two feet of soil for disposal at an approved permitted landfill facility. Excavated areas would then be backfilled with backfill that is certified free of deleterious material or compounds. Soil removal and backfill has the following advantages and disadvantages.

Advantages

- Permanently removes arsenic impacted surface soil and completely mitigates arsenic exposure from surface soil
- Custom landscaping will likely require removal but can be reestablished

Disadvantages

- Relatively expensive
- Site has areas where many underground utilities are located. Digging may not be feasible in certain locations.
- Requires protection or replanting of trees
- Potential that some soil may be considered hazardous for disposal purposes
- Cannot be performed in areas where heavy equipment will impact fire station operations

4.3 Schedule

A projected milestone schedule is shown in **Figure 4-1**. The list below provides the project milestones that are specific to this project and required as part of the VRP application.

Milestone	Status/Timeframe
Horizontal delineation of the release on property where access is available at time of enrollment	Complete
Update the site CSM to include vertical delineation	Complete
Arsenic Assessment (EMP and IVBA Testing)	3 months
Finalize RRSs with EPD	2 months
Remedial Design	3 months
Bidding and Procurement	4 months
Corrective Action Implementation	3 months
Compliance Status Report	2 months

Section 5
References

Griffin, Susan, Environmental Protection Agency Region 8 and Lowney, Yvette, Exponent, Inc., December 2012. Validation of an In Vitro Bioaccessibility Test Method for Estimation of Bioavailability of Arsenic from Soil and Sediment. ESTCP Project ER-200916.

Environmental Protection Agency, December 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites.

Environmental Protection Agency, May 2014. Regional Screening Table. http://epa.gov/reg3hwmd/risk/human/rb-concentration_table/

University of Georgia. Climate Averages from 1957 to 1995, Climate Station Alpharetta_4_SSW http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GADU&report=cl

Figures

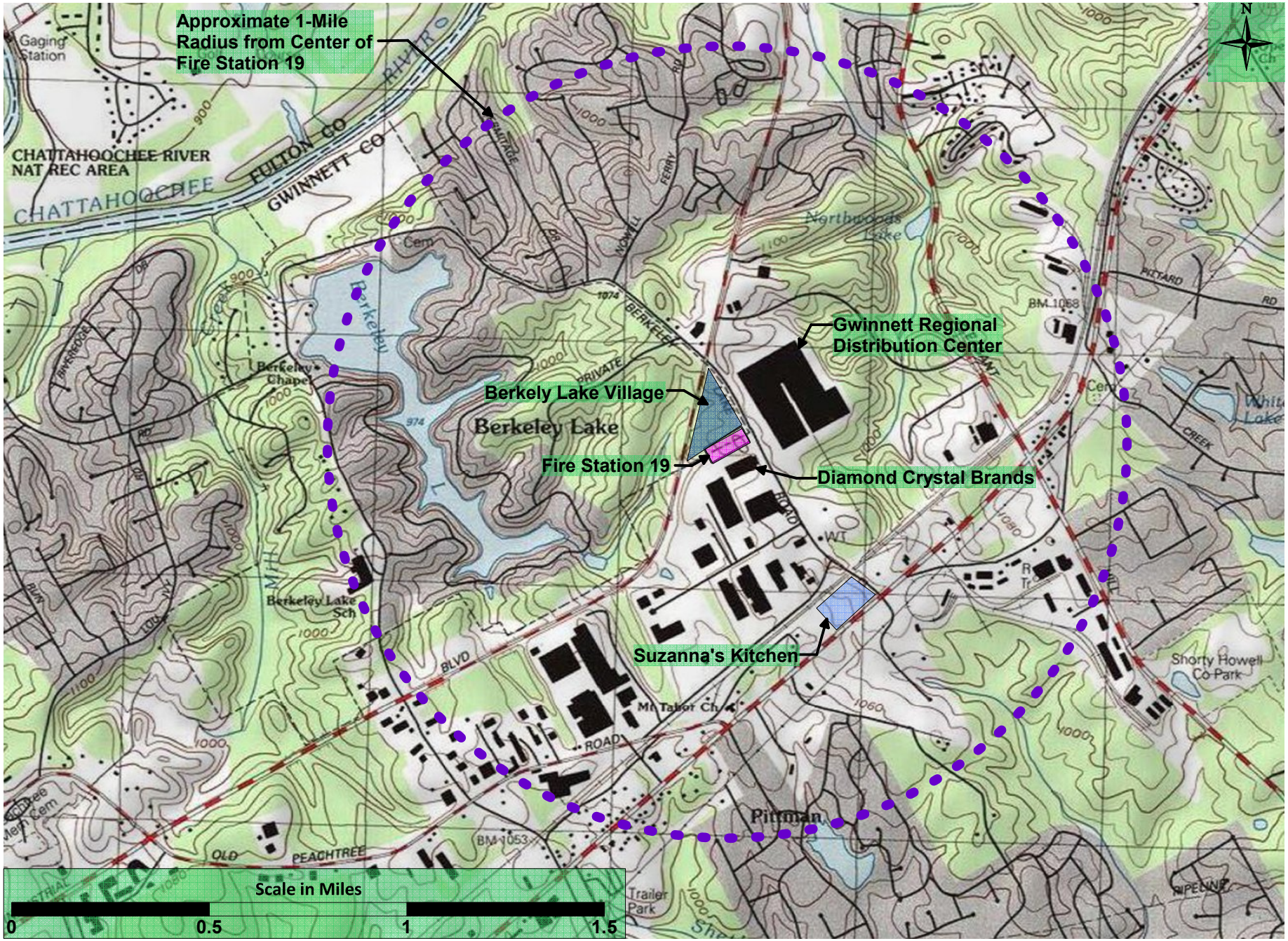


Figure 1-1: Site Location and Surrounding Land Use

Corrective Action Plan
Fire Station 19
(HSI #10844)
Duluth, Gwinnett County, Georgia

CDM Smith

Scale in Feet

0 60 120

Property Lines Proposed Sewer

CDM Smith

Figure 1-2: Site Layout

Corrective Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia

Scale in Feet

0 60 120

Property Lines Proposed Sewer

CDM Smith

Figure 2-1: Monitoring Well Locations

Corrective Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia

N

Scale in Feet

0 60 120

CDM Smith

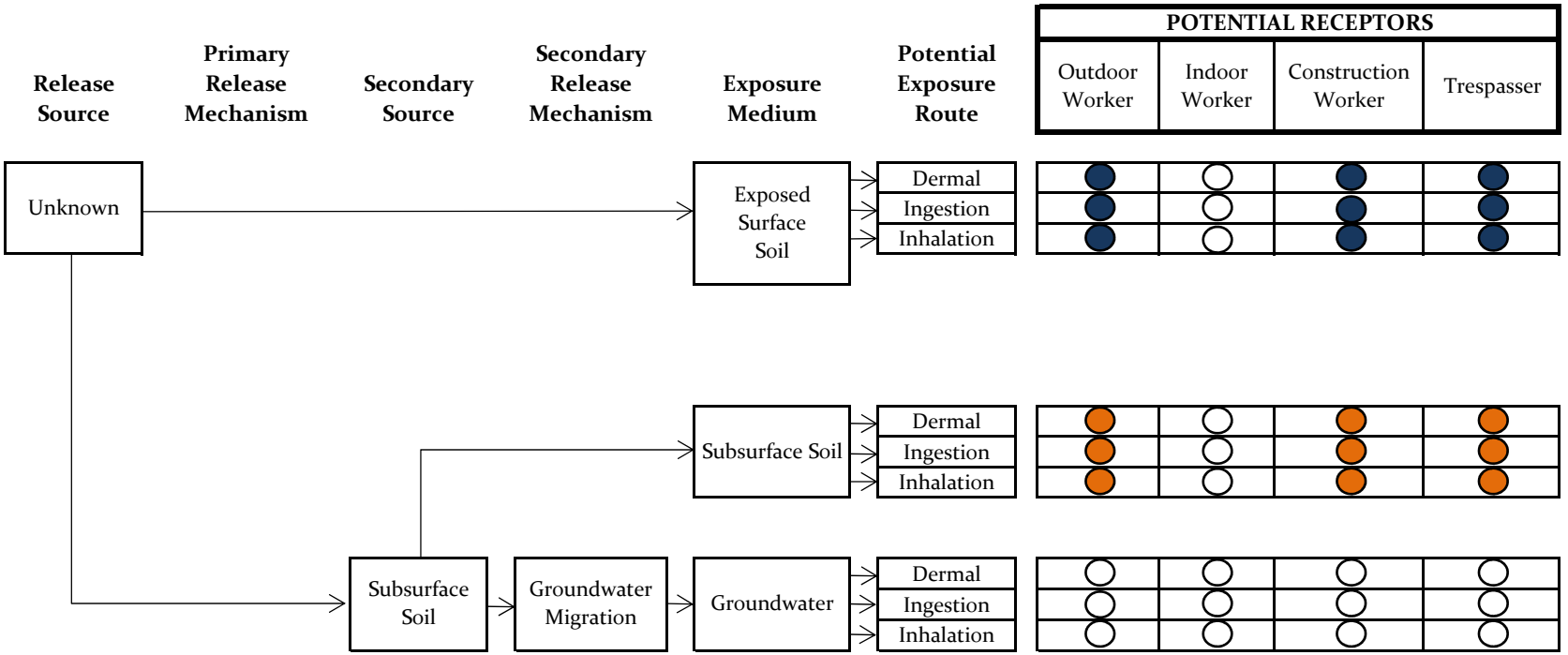
Figure 2-2: Soil Sample Locations

Corrective Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia



LEGEND

- Incomplete: Current and future scenarios
- Complete: Future scenario only
- Complete: Current and future scenarios

Figure 2-3: Site Conceptual Exposure Model

Correction Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia

CDM Smith

CDM Smith

Figure 3-1: Surface Soil Arsenic Results

Corrective Action Plan
Fire Station 19
(HSI #10844)
Duluth, Gwinnett County, Georgia

Year	1												2				
Months (from VRP Enrollment)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Arsenic Assessment (EMP and IVBA Testing)																	
Finalize RRSs with EPD																	
Remedial Design																	
Bidding and Procurement																	
Corrective Action Implementation																	
Compliance Satus Report																	

Figure 4-1: Milestone Schedule

Corrective Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia

CDM Smith

Tables

Table 2-1: Surface and Subsurface Soil Arsenic Results

Corrective Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia

Sample ID	Sample Depth (ft bgs)	Arsenic Result (mg/kg)	PQL (mg/kg)
EPD Notification Concentration		**41**	
EPD Type 1 RRS		**20**	
SB-1	0.5 - 2	97.2	6.13
	4	73.2	5.46
DUP-7	4	70.4	5.47
SB-2	0.5 - 2	74.8	5.6
SB-3	0.5 - 2	112	5.63
	4	35.2	5.97
SB-4	0.5 - 2	61.9	5.33
SB-5	0.5 - 2	59.9	5.42
SB-6	0.5 - 2	47.1	5.47
SB-7	0.5 - 2	14.5	5.61
	4	491	28
SB-8	0.5 - 2	107	5.29
SB-9	0.5 - 2	129	6.13
	4	105	5.92
SB-10	0.5 - 2	40.4	5.59
SB-11	0.5 - 2	54.2	6.14
	4	32.6	5.81
SB-12	0.5 - 2	57	5.82
SB-13	0.5 - 2	37.4	5.56
	4	274	11.5
SB-14	0.5 - 2	153	5.73
SB-15	0.5 - 2	98.1	5.61
	4	5.55	5.4
SB-16	0.5 - 2	61.5	5.24
SB-17	0.5 - 2	31.2	5.99
	4	17.7	5.72
DUP-6	4	29.1	5.98
SB-18	0.5 - 2	89.7	5.71
SB-19	0.5 - 2	99.3	5.55
	4	52.5	5.48
DUP-5	4	337	10.9
SB-20	0.5 - 2	96.7	5.7
SB-21	0.5 - 2	96.2	5.48
	4	10.3	5.36
SB-22	0.5 - 2	80.3	5.73
SB-23	0.5 - 2	80.7	5.95
	4	32.1	5.4
SB-24	0.5 - 2	83.3	5.55

Table 2-1: Surface and Subsurface Soil Arsenic Results

Corrective Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia

Sample ID	Sample Depth (ft bgs)	Arsenic Result (mg/kg)	PQL (mg/kg)
EPD Notification Concentration		**41**	
EPD Type 1 RRS		**20**	
SB-25	0.5 - 2	93.6	5.69
	4	85	5.68
DUP-4	4	107	5.61
SB-26	0.5 - 2	93.6	5.71
SB-27	0.5 - 2	90.4	5.9
	4	31.1	6.11
SB-28	0.5 - 2	31.3	5.54
SB-29	0.5 - 2	71.9	5.56
SB-30	0.5 - 2	90.1	5.54
	4	106	5.8
SB-31	0.5 - 2	20.7	5.45
SB-32	0.5 - 2	78.7	5.38
	4	60.5	5.18
SB-33	0.5 - 2	76.1	5.65
SB-34	0.5 - 2	95.6	5.7
	4	33.4	6.06
SB-35	0.5 - 2	102	6.19
DUP-1	0.5 - 2	42.5	6.08
SB-36	0.5 - 2	69.9	6.21
	4	103	6.11
SB-37	0.5 - 2	83.6	6.13
SB-38	0.5 - 2	98.3	6.23
	4	371	31.8
SB-39	0.5 - 2	97.7	6.08
SB-40	0.5 - 2	60.4	5.98
	4	54.5	6.32
SB-41	0.5 - 2	76.6	5.62
	4	70.2	5.25
SB-42	0.5 - 2	67.2	5.86
DUP-2	0.5 - 2	75.9	5.86
SB-43	0.5 - 2	79.9	5.59
SB-44	0.5 - 2	63.1	5.81
SB-45	0.5 - 2	64.6	5.88
	4	45.3	5.67
SB-46	0.5 - 2	71.6	5.89
SB-47	0.5 - 2	64.7	6.21
	4	21.8	5.83
SB-48	0.5 - 2	63	5.72

Table 2-1: Surface and Subsurface Soil Arsenic Results

Corrective Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia

Sample ID	Sample Depth (ft bgs)	Arsenic Result (mg/kg)	PQL (mg/kg)
EPD Notification Concentration		**41**	
EPD Type 1 RRS		**20**	
SB-49	0.5 - 2	73.4	5.42
	4	77.5	5.48
SB-50	0.5 - 2	76.6	5.88
SB-51	0.5 - 2	60.2	6.05
	4	218	12.6
SB-52	0.5 - 2	68.8	5.64
DUP-3	0.5 - 2	88.1	5.62
	4	138	5.61
SB-53	0.5 - 2	50.9	6.01

Notes:

DUP-X - duplicate sample where X corresponds to duplicate sample ID

ft bgs - feet below ground surface

PQL - Practical Quantitation Limit

All samples collected on July 29, 2014

Sample results are on a dry weight basis

Table 2-2: Soil Arsenic Statistical Summary

Corrective Action Plan

Fire Station 19

(HSI #10844)

0.5 - 2 Foot Depth, FS 19	
Mean	71
Median	75
Standard Deviation	29
Minimum	0.5
Maximum	153
Count	61
95% UCL of the Mean	79

4 Foot Depth, FS 19	
Mean	98
Median	62
Standard Deviation	112
Minimum	5.55
Maximum	491
Count	34
95% UCL of the Mean	138

Combined Depths, FS 19	
Mean	81
Median	72
Standard Deviation	72
Minimum	0.5
Maximum	491
Count	95
95% UCL of the Mean	96

0.5 - 2 Foot Depth, Offsite Properties	
Mean	48
Median	25
Standard Deviation	56
Minimum	0.003
Maximum	272
Count	161
95% UCL of the Mean	57

4 - 8 Foot Depth, Offsite Properties	
Mean	62
Median	31
Standard Deviation	98
Minimum	0.003
Maximum	750
Count	94
95% UCL of the Mean	82

Combined Depths, Offsite Properties	
Mean	54
Median	28
Standard Deviation	75
Minimum	0.003
Maximum	750
Count	255
95% UCL of the Mean	63

0.5 - 2 Foot Depth, All Sites	
Mean	55
Median	43
Standard Deviation	51
Minimum	0.003
Maximum	272
Count	222
95% UCL of the Mean	61

4 - 8 Foot Depth, All Sites	
Mean	72
Median	38
Standard Deviation	103
Minimum	0.003
Maximum	750
Count	128
95% UCL of the Mean	90

Combined Depths, All Sites	
Mean	61
Median	42
Standard Deviation	75
Minimum	0.003
Maximum	750
Count	350
95% UCL of the Mean	69

Table 3-1: Subsurface Soil Type 5 RRS - Construction Worker

Corrective Action Plan
Fire Station 19
(HSI #10844)
Duluth, Gwinnett County, Georgia

RAGS Equation 7
Construction Worker - Noncarcinogenic Effects

$$C_{soil}{}^{1} = \frac{THI \times BW \times AT \times 365\ days/year}{EF \times ED \times [(1/RfD_o \times 10^{-6}\ kg/mg \times IR_{soil}) + (1/RfD_i \times IR_{air} \times \{\sout{1/VF +}\ 1/PEF\})]}$$

Parameter	Definition (units)	Default Value	Source
C_{soil}	Concentration in soil (mg/kg)	Calculated	Not applicable
THI	Target hazard index (unit less)	1	HSRA Rules
RfD_o	Oral chronic reference dose ($(mg/kg\text{-}dy)^{-1}$)	Chemical-specific	EPA, 2014
RfD_i	Inhalation chronic reference dose ($(mg/kg\text{-}dy)^{-1}$)	Chemical-specific	EPA, 2014
BW	Adult body weight (kg)	70	HSRA Rules
AT	Averaging time (yr)	1	EPA, 2014
EF	Exposure frequency (dy/yr)	174	Site-Specific[2]
ED	Exposure Duration (yr)	1	EPA, 2002
IR_{air}	Workday inhalation rate (m^3/dy)	20	HSRA Rules
IR_{soil}	Daily soil ingestion rate (mg/dy)	50	HSRA Rules
PEF	Particulate emission factor (m^3/kg)	4.63E+09	HSRA Rules
RfC_i	Inhalation reference concentration (mg/m^3)	(RfD_i X 70) / 20 m^3/d	Not applicable

RAGS Equation 6
Construction Worker - Carcinogenic Effects

$$C_{soil}{}^{1} = \frac{TR \times BW \times AT \times 365\ days/year}{EF \times ED \times [(SF_i \times IR_{air} \times \{\sout{1/VF}\ + 1/PEF\}) + (SF_o \times 10^{-6}\ kg/mg \times IR_{soil})]}$$

Parameter	Definition (units)	Default Value	Source
C_{soil}	Concentration in soil (mg/kg)	Calculated	Not applicable
$TR_{A/B}$	Class A/B target excess lifetime cancer risk (unit less)	1.E-05	HSRA Rules
TR_C	Class C target excess lifetime cancer risk (unit less)	1.E-04	HSRA Rules
SF_i	Inhalation cancer slope factor ($(mg/kg\text{-}dy)^{-1}$)	Chemical-specific	EPA, 2014
SF_o	Oral cancer slope factor ($(mg/kg\text{-}dy)^{-1}$)	Chemical-specific	EPA, 2014
BW	Adult body weight (kg)	70	HSRA Rules
AT	Averaging time (yr)	70	HSRA Rules
EF	Exposure frequency (dy/yr)	174	Site-Specific[2]
ED	Exposure Duration (yr)	1	EPA, 2002
IR_{air}	Daily inhalation rate (m^3/dy)	20	HSRA Rules
IR_{soil}	Daily soil ingestion rate (mg/dy)	50	HSRA Rules
PEF	Particulate emission factor (m^3/kg)	4.63E+09	HSRA Rules

391-3-19-.07(6)(c) Item 1

Compound	CAS No.	Maximum Detected Concentration (mg/kg)	Item 1(i) HSRA Appendix I (mg/kg)	Item 1(ii) HSRA Appendix III Table 1 x 100	Groundwater Protection Soil RRS Higher of 1 (i) and (ii)	Carcinogen Class - TR	RfD_o	SF_O	RfC_i	RfD_i	IUR	SF_i	C_{soil} Non-car (mg/kg)	C_{soil} Car (mg/kg)	Construction Worker RRS (mg/kg)
Arsenic	7440382	491	41	1	41	A 1.0E-05	3.0E-04	1.5	1.50E-05	5.25E-05	4.3E-03	15.05	881	1,369	881

CAS - Chemical Abstract System
HSRA - Hazardous Site Response Act
Item 1(i) - Notification Concentration in mg/kg
Appendix III Table 1 - Groundwater Criteria in mg/L
Note 1 - Volatization Factor (VF) excluded from calculation because all COPC are metals and do not volatilze.

DATA SOURCE:
U.S. EPA Regional Screening Level Summary Table, http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm, May 2014.

Appendix A

Groundwater Laboratory Report

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Laboratory Report

ACL Project #: **66972**

Client Proj #: FS-19

Prepared For:

CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Attention: Mr. Andrew Romanek

Report Date: 08/13/2014

This report contains 8 pages.
(including this cover page and chain of custody)

John Andros
Lab Manager

ACCREDITED IN ACCORDANCE WITH nelac

Advanced Chemistry Labs is a woman-owned, small business concern.

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road, Suite 100, Atlanta, GA 30360
P. O. Box 88610, Atlanta, GA 30356

Explanation of Symbols and Abbreviations

Listed below are common symbols and abbreviations typically used in reporting technical data:

PQL	Practical Quantitation Limit	MDL	Method Detection Limit
BQL	Below Quantitation Limit	BDL	Below Method Detection Limit
MPN	Most Probable Number	TNTC	Too Numerous To Count
NTU	Nephelometric Turbidity Units	BTU	British Thermal Units
°C	Degrees Centigrade	°F	Degrees Fahrenheit
µmhos/cm	micromhos/cm	cfu	Colony Forming Unit
DF	Dilution Factor	meq	milliequivalents
kg	kilogram(s)	g	gram(s)
mg	milligram(s)	µg	microgram(s)
l or L	liter(s)	ml or mL	milliliter(s)
µl or µL	microliter(s)	m^3	cubic meter(s)
lb	pound(s)	ft^3	cubic foot(feet)
ft	foot(feet)	su	Standard Units
<	Less than	>	Greater than

mg/L, mg/kg	Units of concentration in milligrams per liter for liquids and milligrams per kilogram for solids. Also referred to as parts per million or "ppm" when the assumption is made that the specific gravity or density is one (1 g/mL).
µg/L, µg/kg	Units of concentration in micrograms per liter for liquids and micrograms per kilogram for solids. Also referred to as parts per billion or "ppb" when the assumption is made that the specific gravity or density is one (1 g/mL).
wt %	Units of concentration expressed on a weight/weight basis (e.g. grams per 100 grams).
Surrogate	Compound(s) added by the laboratory for quality control monitoring.
mg/kg,dw	Units of concentration in milligrams per kilogram (dry weight basis).

Data Qualifiers:

B	Analyte was also detected in the method blank
E	Estimated value - analyte was detected at concentration greater than upper calibration limit
F	Estimated value - analyte should have been tested as a field parameter
H	Estimated value - sample was analyzed beyond the accepted holding time
J	Estimated value - analyte was detected < PQL and ≥ MDL
L	The batch-specific LCS and/or LCSD was not within lab control limits for this analyte
M	The batch-specific MS and/or MSD was not within lab control limits for this analyte
R	The RPD between batch-specific sample/dup or MS/MSD was not within lab control limits for this analyte
S	The surrogate recovery was not within quality control limits
Z	Laboratory specific qualifier – refer to case narrative
*	Performed in strict accordance with the procedures and controls of the ACL quality system, but not currently in the NELAC list of certified analytes/methods

Solid samples (i.e. soil, sludge, solid waste) are reported on a wet weight basis unless otherwise noted. Estimated uncertainty values are available upon request.

Representation and Limitation of Liability – The accuracy of all analytical results for samples begins as it is received by the laboratory. The integrity of the sample begins at the time it is placed in the possession of authorized ACL personnel. All other warranties, expressed or implied, are disclaimed. Liability is limited to the cost of the analysis.

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19
ACL Project #: 66972
Date Received: 08/05/2014
Date Reported: 08/13/2014

Contact: Mr. Andrew Romanek

Sample ID: MW-2 **Matrix:** Water

ACL #: 303647 **Date/Time Sampled:** 08/05/2014 10:45

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	BQL	0.010	mg/L	1	08/07/2014 14:30	08/11/2014 15:55	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19
ACL Project #: 66972
Date Received: 08/05/2014
Date Reported: 08/13/2014

Contact: Mr. Andrew Romanek

Sample ID: MW-1 **Matrix:** Water

ACL #: 303648 **Date/Time Sampled:** 08/05/2014 12:35

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	BQL	0.010	mg/L	1	08/07/2014 14:30	08/11/2014 16:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road, Suite 100, Atlanta, GA 30360
P. O. Box 88610, Atlanta, GA 30356

QUALITY CONTROL SECTION

ADVANCED CHEMISTRY LABS, INC.

Total Lead (6010C) Quality Control Data

Blank:	ACL #	Matrix	Total Arsenic (6010C) (mg/L)
	Method Blank	Water	< 0.010

Duplicate:	ACL #	Matrix	Total Arsenic (6010C) (mg/L)	%D
	303644	Water	< 0.010	
				0
	303644-D	Water	< 0.010	

Matrix Spike:	ACL #	Expected Value	Actual Value	% Recovery	RPD
	303652-MS	0.200	0.202	101	
					4
	303652-MSD	0.200	0.195	97	

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Sample Log-in Checklist

Client Name: CDM Smith

ACL Project Number: **66972**

Cooler Check

	Yes	No		Yes	No
Ice Present?	☑	☐	Evidence Tape Present?	☐	☑
Temperature	4 °C		Evidence Tape Intact?	☐	☑

For coolers with a temperature greater than 6°C or with a damaged evidence seal, the bottles affected are identified below.

	Yes	No
Chain-of-Custody Form Included?	☑	☐
Field Sampling Sheet Included?	☐	☑

Cooler Shipping and Receipt

Shipping Method: Delivered by Customer

Tracking Number:

Receipt Date: 8/5/2014

Receipt Time: 1:15 PM

Bottle Check

Acid Preserved Sample (pH Check): pH<2? Yes
(pH for VO vials to be checked upon analysis)

Base Preserved Samples (pH Check): pH>12? N/A

Chlorine Check (Positive, Negative, N/A): N/A

Condition of Containers:

	Yes	No
Evidence Tape Present on Bottles?	☐	☑
Evidence Tape Intact?	☐	☑
Loose Caps?	☐	☑
Broken Bottles?	☐	☑

Cooler Unpacked/Checked By: JA **Logged In By:** JA **Log-in Date:** 8/5/2014

Comments (if any):

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-783-4702 Fax #:
Address: 3715 Northside Parkway NW B. 300 S. 4100 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek romanekAP@cdmsmith.com	Project #: Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
MW-2	1	X									X			8/5/14	1045	X		X	
MW-1	1	X									X			8/5/14	1235	X		X	

Special Detection Limits	Remarks:	TAT: Next Bus. Day ☐ 2nd Bus. Day ☐ 3rd Bus. Day ☐ Normal ☒
Special Reporting Requirements: Fax ☐	Lab Use Only: ACL Project #: 66972	Cooler Temp: 4 °C
		Special Handling: ACL Contract ____ Quote # ____ P.O. ____
		QA/QC Level: Level 1 ☒ Level 2 ☐ Other ☐ ____

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	8/5/14	1315	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 8/5/14	Time: 13:15	Received by Laboratory: Michael Mockel

Appendix B

Soil Laboratory Report

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Laboratory Report

ACL Project #: **66956**

Client Proj #: FS-19 / Duluth, GA

Prepared For:

CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Attention: Mr. Andrew Romanek

Report Date: 08/12/2014

This report contains 103 pages.
(including this cover page and chain of custody)

John Andrps
Lab Manager

ACCREDITED IN ACCORDANCE WITH nelac

Advanced Chemistry Labs is a woman-owned, small business concern.

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road, Suite 100, Atlanta, GA 30360
P. O. Box 88610, Atlanta, GA 30356

Explanation of Symbols and Abbreviations

Listed below are common symbols and abbreviations typically used in reporting technical data:

PQL	Practical Quantitation Limit	MDL	Method Detection Limit
BQL	Below Quantitation Limit	BDL	Below Method Detection Limit
MPN	Most Probable Number	TNTC	Too Numerous To Count
NTU	Nephelometric Turbidity Units	BTU	British Thermal Units
°C	Degrees Centigrade	°F	Degrees Fahrenheit
µmhos/cm	micromhos/cm	cfu	Colony Forming Unit
DF	Dilution Factor	meq	milliequivalents
kg	kilogram(s)	g	gram(s)
mg	milligram(s)	µg	microgram(s)
l or L	liter(s)	ml or mL	milliliter(s)
µl or µL	microliter(s)	m^3	cubic meter(s)
lb	pound(s)	ft^3	cubic foot(feet)
ft	foot(feet)	su	Standard Units
<	Less than	>	Greater than

mg/L, mg/kg — Units of concentration in milligrams per liter for liquids and milligrams per kilogram for solids. Also referred to as parts per million or "ppm" when the assumption is made that the specific gravity or density is one (1 g/mL).

µg/L, µg/kg — Units of concentration in micrograms per liter for liquids and micrograms per kilogram for solids. Also referred to as parts per billion or "ppb" when the assumption is made that the specific gravity or density is one (1 g/mL).

wt % — Units of concentration expressed on a weight/weight basis (e.g. grams per 100 grams).

Surrogate — Compound(s) added by the laboratory for quality control monitoring.

mg/kg,dw — Units of concentration in milligrams per kilogram (dry weight basis).

Data Qualifiers:

B — Analyte was also detected in the method blank
E — Estimated value - analyte was detected at concentration greater than upper calibration limit
F — Estimated value - analyte should have been tested as a field parameter
H — Estimated value - sample was analyzed beyond the accepted holding time
J — Estimated value - analyte was detected < PQL and ≥ MDL
L — The batch-specific LCS and/or LCSD was not within lab control limits for this analyte
M — The batch-specific MS and/or MSD was not within lab control limits for this analyte
R — The RPD between batch-specific sample/dup or MS/MSD was not within lab control limits for this analyte
S — The surrogate recovery was not within quality control limits
Z — Laboratory specific qualifier – refer to case narrative
* — Performed in strict accordance with the procedures and controls of the ACL quality system, but not currently in the NELAC list of certified analytes/methods

Solid samples (i.e. soil, sludge, solid waste) are reported on a wet weight basis unless otherwise noted. Estimated uncertainty values are available upon request.

Representation and Limitation of Liability – The accuracy of all analytical results for samples begins as it is received by the laboratory. The integrity of the sample begins at the time it is placed in the possession of authorized ACL personnel. All other warranties, expressed or implied, are disclaimed. Liability is limited to the cost of the analysis.

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: Dup-1 **Matrix:** Soil

ACL #: 303453 **Date/Time Sampled:** 07/29/2014 8:00

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	42.5	6.08	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 12:01	JG
T. Solids (SM2540 G)	82.2	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: Dup-2

Matrix: Soil

ACL #: 303454

Date/Time Sampled: 07/29/2014 8:15

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	75.9	5.86	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 12:06	JG
T. Solids (SM2540 G)	85.3	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: Dup-3 **Matrix:** Soil

ACL #: 303455 **Date/Time Sampled:** 07/29/2014 8:30

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	88.1	5.62	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 12:11	JG
T. Solids (SM2540 G)	89.0	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: Dup-4 **Matrix:** Soil

ACL #: 303456 **Date/Time Sampled:** 07/29/2014 8:45

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	107	5.61	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 12:16	JG
T. Solids (SM2540 G)	89.2	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: Dup-5 **Matrix:** Soil

ACL #: 303457 **Date/Time Sampled:** 07/29/2014 9:00

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	337	10.9	mg/kg,dw	2	07/30/2014 11:32	08/01/2014 12:38	JG
T. Solids (SM2540 G)	91.5	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: Dup-6 **Matrix:** Soil

ACL #: 303458 **Date/Time Sampled:** 07/29/2014 9:15

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	29.1	5.98	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 12:44	JG
T. Solids (SM2540 G)	83.6	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-28 (0.5-2)

Matrix: Soil

ACL #: 303459

Date/Time Sampled: 07/29/2014 9:25

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	31.3	5.54	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 12:48	JG
T. Solids (SM2540 G)	90.3	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-40 (0.5-2)

Matrix: Soil

ACL #: 303460

Date/Time Sampled: 07/29/2014 9:30

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	60.4	5.98	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 12:55	JG
T. Solids (SM2540 G)	83.6	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: Dup-7 **Matrix:** Soil

ACL #: 303461 **Date/Time Sampled:** 07/29/2014 9:30

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	70.4	5.47	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 13:00	JG
T. Solids (SM2540 G)	91.4	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-40 (4)

Matrix: Soil

ACL #: 303462

Date/Time Sampled: 07/29/2014 9:35

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	54.5	6.32	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 13:12	JG
T. Solids (SM2540 G)	79.1	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-39 (0.5-2)

Matrix: Soil

ACL #: 303463

Date/Time Sampled: 07/29/2014 9:40

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	97.7	6.08	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 14:02	JG
T. Solids (SM2540 G)	82.3	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-38 (0.5-2)

Matrix: Soil

ACL #: 303464

Date/Time Sampled: 07/29/2014 9:42

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	98.3	6.23	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 14:07	JG
T. Solids (SM2540 G)	80.2	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-38 (4)

Matrix: Soil

ACL #: 303465

Date/Time Sampled: 07/29/2014 9:44

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	371	31.8	mg/kg,dw	5	07/30/2014 11:32	08/01/2014 14:24	JG
T. Solids (SM2540 G)	78.5	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-37 (0.5-2)

Matrix: Soil

ACL #: 303466

Date/Time Sampled: 07/29/2014 9:46

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	83.6	6.13	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 14:29	JG
T. Solids (SM2540 G)	81.6	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-36 (0.5-2)

Matrix: Soil

ACL #: 303467

Date/Time Sampled: 07/29/2014 9:48

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	69.9	6.21	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 14:33	JG
T. Solids (SM2540 G)	80.5	0.5	wt %	1	07/31/2014 16:15	07/31/2014 16:15	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-36 (4)

Matrix: Soil

ACL #: 303468

Date/Time Sampled: 07/29/2014 9:50

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	103	6.11	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 14:38	JG
T. Solids (SM2540 G)	81.9	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-35 (0.5-2)

Matrix: Soil

ACL #: 303469

Date/Time Sampled: 07/29/2014 9:52

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	102	6.19	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 14:43	JG
T. Solids (SM2540 G)	80.8	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-34 (0.5-2)

Matrix: Soil

ACL #: 303470

Date/Time Sampled: 07/29/2014 9:55

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	95.6	5.70	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 14:47	JG
T. Solids (SM2540 G)	87.7	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-34 (4)

Matrix: Soil

ACL #: 303471

Date/Time Sampled: 07/29/2014 9:57

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	33.4	6.06	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 14:51	JG
T. Solids (SM2540 G)	82.5	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-33 (0.5-2)

Matrix: Soil

ACL #: 303472

Date/Time Sampled: 07/29/2014 9:59

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	76.1	5.65	mg/kg,dw	1	07/30/2014 11:32	08/01/2014 15:05	JG
T. Solids (SM2540 G)	88.5	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-32 (0.5-2)

Matrix: Soil

ACL #: 303473

Date/Time Sampled: 07/29/2014 10:02

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	78.7	5.38	mg/kg,dw	1	07/30/2014 12:30	08/01/2014 16:02	JG
T. Solids (SM2540 G)	92.9	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-32 (4)

Matrix: Soil

ACL #: 303474

Date/Time Sampled: 07/29/2014 10:04

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	60.5	5.18	mg/kg,dw	1	07/30/2014 12:30	08/01/2014 16:06	JG
T. Solids (SM2540 G)	96.5	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-31 (0.5-2)

Matrix: Soil

ACL #: 303475

Date/Time Sampled: 07/29/2014 10:06

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	20.7	5.45	mg/kg,dw	1	07/30/2014 12:30	08/01/2014 16:11	JG
T. Solids (SM2540 G)	91.7	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-41 (0.5-2)

Matrix: Soil

ACL #: 303476

Date/Time Sampled: 07/29/2014 10:09

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	76.6	5.62	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 10:57	JG
T. Solids (SM2540 G)	89.0	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-41 (4)

Matrix: Soil

ACL #: 303477

Date/Time Sampled: 07/29/2014 10:11

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	70.2	5.25	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 11:02	JG
T. Solids (SM2540 G)	95.3	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-43 (0.5-2)

Matrix: Soil

ACL #: 303478

Date/Time Sampled: 07/29/2014 10:13

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	79.9	5.59	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 11:07	JG
T. Solids (SM2540 G)	89.5	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-42 (0.5-2)

Matrix: Soil

ACL #: 303479

Date/Time Sampled: 07/29/2014 10:15

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	67.2	5.86	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 11:12	JG
T. Solids (SM2540 G)	85.3	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-45 (0.5-2)

Matrix: Soil

ACL #: 303480

Date/Time Sampled: 07/29/2014 10:26

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	64.6	5.88	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 11:17	JG
T. Solids (SM2540 G)	85.0	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-45 (4)

Matrix: Soil

ACL #: 303481

Date/Time Sampled: 07/29/2014 10:28

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	45.3	5.67	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 11:26	JG
T. Solids (SM2540 G)	88.2	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-44 (0.5-2)

Matrix: Soil

ACL #: 303482

Date/Time Sampled: 07/29/2014 10:31

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	63.1	5.81	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 11:35	JG
T. Solids (SM2540 G)	86.1	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-47 (0.5-2)

Matrix: Soil

ACL #: 303483

Date/Time Sampled: 07/29/2014 10:34

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	64.7	6.21	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:04	JG
T. Solids (SM2540 G)	80.5	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-47 (4)

Matrix: Soil

ACL #: 303484

Date/Time Sampled: 07/29/2014 10:36

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	21.8	5.83	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:09	JG
T. Solids (SM2540 G)	85.7	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-46 (0.5-2)

Matrix: Soil

ACL #: 303485

Date/Time Sampled: 07/29/2014 10:38

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	71.6	5.89	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:14	JG
T. Solids (SM2540 G)	84.9	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-49 (0.5-2)

Matrix: Soil

ACL #: 303486

Date/Time Sampled: 07/29/2014 10:40

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	73.4	5.42	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:18	JG
T. Solids (SM2540 G)	92.3	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-49 (4)

Matrix: Soil

ACL #: 303487

Date/Time Sampled: 07/29/2014 10:42

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	77.5	5.48	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:23	JG
T. Solids (SM2540 G)	91.2	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-50 (0.5-2)

Matrix: Soil

ACL #: 303488

Date/Time Sampled: 07/29/2014 10:44

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	76.6	5.88	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:28	JG
T. Solids (SM2540 G)	85.1	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-52 (0.5-2)

Matrix: Soil

ACL #: 303489

Date/Time Sampled: 07/29/2014 10:47

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	68.8	5.64	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:32	JG
T. Solids (SM2540 G)	88.6	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Contact: Mr. Andrew Romanek

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Sample ID: SB-52 (4)

Matrix: Soil

ACL #: 303490

Date/Time Sampled: 07/29/2014 10:50

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	138	5.61	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:36	JG
T. Solids (SM2540 G)	89.1	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-53 (0.5-2)

Matrix: Soil

ACL #: 303491

Date/Time Sampled: 07/29/2014 10:52

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	50.9	6.01	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:41	JG
T. Solids (SM2540 G)	83.2	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-51 (0.5-2)

Matrix: Soil

ACL #: 303492

Date/Time Sampled: 07/29/2014 10:54

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	60.2	6.05	mg/kg,dw	1	07/30/2014 12:30	08/04/2014 12:50	JG
T. Solids (SM2540 G)	82.7	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-51 (4)

Matrix: Soil

ACL #: 303493

Date/Time Sampled: 07/29/2014 10:56

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	218	12.6	mg/kg,dw	2	07/30/2014 13:25	08/04/2014 13:38	JG
T. Solids (SM2540 G)	79.3	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-48 (0.5-2)

Matrix: Soil

ACL #: 303494

Date/Time Sampled: 07/29/2014 10:58

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	63.0	5.72	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 13:43	JG
T. Solids (SM2540 G)	87.4	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-30 (0.5-2)

Matrix: Soil

ACL #: 303495

Date/Time Sampled: 07/29/2014 11:02

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	90.1	5.54	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 13:48	JG
T. Solids (SM2540 G)	90.3	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-30 (4)

Matrix: Soil

ACL #: 303496

Date/Time Sampled: 07/29/2014 11:04

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	106	5.80	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 13:53	JG
T. Solids (SM2540 G)	86.2	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-29 (0.5-2)

Matrix: Soil

ACL #: 303497

Date/Time Sampled: 07/29/2014 11:06

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	71.9	5.56	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 13:57	JG
T. Solids (SM2540 G)	90.0	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-25 (0.5-2)

Matrix: Soil

ACL #: 303498

Date/Time Sampled: 07/29/2014 11:08

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	93.6	5.69	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 14:02	JG
T. Solids (SM2540 G)	87.8	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-25 (4)

Matrix: Soil

ACL #: 303499

Date/Time Sampled: 07/29/2014 11:10

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	85.0	5.68	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 14:07	JG
T. Solids (SM2540 G)	88.1	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-26 (0.5-2)

Matrix: Soil

ACL #: 303500

Date/Time Sampled: 07/29/2014 11:16

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	93.6	5.71	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 14:11	JG
T. Solids (SM2540 G)	87.5	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-27 (0.5-2)

Matrix: Soil

ACL #: 303501

Date/Time Sampled: 07/29/2014 11:18

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	90.4	5.90	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 14:15	JG
T. Solids (SM2540 G)	84.8	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-27 (4)

Matrix: Soil

ACL #: 303502

Date/Time Sampled: 07/29/2014 11:20

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	31.1	6.11	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 14:25	JG
T. Solids (SM2540 G)	81.8	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-20 (0.5-2)

Matrix: Soil

ACL #: 303503

Date/Time Sampled: 07/29/2014 11:22

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	96.7	5.70	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 14:44	JG
T. Solids (SM2540 G)	87.7	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-21 (0.5-2)

Matrix: Soil

ACL #: 303504

Date/Time Sampled: 07/29/2014 11:25

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	96.2	5.48	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 14:48	JG
T. Solids (SM2540 G)	91.3	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-21 (4)

Matrix: Soil

ACL #: 303505

Date/Time Sampled: 07/29/2014 11:27

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	10.3	5.36	mg/kg,dw	1	07/30/2014 13:25	08/04/2014 14:52	JG
T. Solids (SM2540 G)	93.2	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-16 (0.5-2)

Matrix: Soil

ACL #: 303506

Date/Time Sampled: 07/29/2014 11:30

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	61.5	5.24	mg/kg,dw	1	07/30/2014 13:25	08/05/2014 12:30	JG
T. Solids (SM2540 G)	95.5	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-15 (0.5-2)

Matrix: Soil

ACL #: 303507

Date/Time Sampled: 07/29/2014 11:33

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	98.1	5.61	mg/kg,dw	1	07/30/2014 13:25	08/05/2014 12:34	JG
T. Solids (SM2540 G)	89.2	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-15 (4)

Matrix: Soil

ACL #: 303508

Date/Time Sampled: 07/29/2014 11:35

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	5.55	5.40	mg/kg,dw	1	07/30/2014 13:25	08/05/2014 12:41	JG
T. Solids (SM2540 G)	92.6	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-14 (0.5-2)

Matrix: Soil

ACL #: 303509

Date/Time Sampled: 07/29/2014 11:38

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	153	5.73	mg/kg,dw	1	07/30/2014 13:25	08/05/2014 12:48	JG
T. Solids (SM2540 G)	87.3	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-19 (0.5-2)

Matrix: Soil

ACL #: 303510

Date/Time Sampled: 07/29/2014 11:40

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	99.3	5.55	mg/kg,dw	1	07/30/2014 13:25	08/05/2014 12:53	JG
T. Solids (SM2540 G)	90.1	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-19 (4)

Matrix: Soil

ACL #: 303511

Date/Time Sampled: 07/29/2014 11:42

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	52.5	5.48	mg/kg,dw	1	07/30/2014 13:25	08/05/2014 12:58	JG
T. Solids (SM2540 G)	91.3	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-13 (0.5-2)

Matrix: Soil

ACL #: 303512

Date/Time Sampled: 07/29/2014 11:46

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	37.4	5.56	mg/kg,dw	1	07/30/2014 13:25	08/05/2014 13:12	JG
T. Solids (SM2540 G)	89.9	0.5	wt %	1	08/01/2014 13:20	08/01/2014 13:20	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-13 (4)

Matrix: Soil

ACL #: 303513

Date/Time Sampled: 07/29/2014 11:48

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	274	11.5	mg/kg,dw	2	07/30/2014 14:30	08/05/2014 13:51	JG
T. Solids (SM2540 G)	86.8	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-18 (0.5-2)

Matrix: Soil

ACL #: 303514

Date/Time Sampled: 07/29/2014 11:51

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	89.7	5.71	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:02	JG
T. Solids (SM2540 G)	87.6	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-24 (0.5-2)

Matrix: Soil

ACL #: 303515

Date/Time Sampled: 07/29/2014 11:56

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	83.3	5.55	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:10	JG
T. Solids (SM2540 G)	90.1	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-23 (0.5-2)

Matrix: Soil

ACL #: 303516

Date/Time Sampled: 07/29/2014 12:00

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	80.7	5.95	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:14	JG
T. Solids (SM2540 G)	84.0	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-23 (4)

Matrix: Soil

ACL #: 303517

Date/Time Sampled: 07/29/2014 12:02

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	32.1	5.40	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:19	JG
T. Solids (SM2540 G)	92.6	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-22 (0.5-2)

Matrix: Soil

ACL #: 303518

Date/Time Sampled: 07/29/2014 12:05

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	80.3	5.73	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:27	JG
T. Solids (SM2540 G)	87.2	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-17 (0.5-2)

Matrix: Soil

ACL #: 303519

Date/Time Sampled: 07/29/2014 12:16

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	31.2	5.99	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:33	JG
T. Solids (SM2540 G)	83.5	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-17 (4)

Matrix: Soil

ACL #: 303520

Date/Time Sampled: 07/29/2014 12:18

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	17.7	5.72	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:38	JG
T. Solids (SM2540 G)	87.4	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-12 (0.5-2)

Matrix: Soil

ACL #: 303521

Date/Time Sampled: 07/29/2014 12:23

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	57.0	5.82	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:47	JG
T. Solids (SM2540 G)	85.9	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-11 (0.5-2)

Matrix: Soil

ACL #: 303522

Date/Time Sampled: 07/29/2014 12:26

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	54.2	6.14	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 14:57	JG
T. Solids (SM2540 G)	81.4	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-11 (4)

Matrix: Soil

ACL #: 303523

Date/Time Sampled: 07/29/2014 12:28

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	32.6	5.81	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 15:24	JG
T. Solids (SM2540 G)	86.1	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-10 (0.5-2)

Matrix: Soil

ACL #: 303524

Date/Time Sampled: 07/29/2014 12:31

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	40.4	5.59	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 15:29	JG
T. Solids (SM2540 G)	89.4	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-9 (0.5-2)

Matrix: Soil

ACL #: 303525

Date/Time Sampled: 07/29/2014 12:34

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	129	6.13	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 15:34	JG
T. Solids (SM2540 G)	81.5	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-9 (4)

Matrix: Soil

ACL #: 303526

Date/Time Sampled: 07/29/2014 12:36

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	105	5.92	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 15:42	JG
T. Solids (SM2540 G)	84.4	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-5 (0.5-2)

Matrix: Soil

ACL #: 303527

Date/Time Sampled: 07/29/2014 12:39

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	59.9	5.42	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 15:47	JG
T. Solids (SM2540 G)	92.2	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-1 (0.5-2)

Matrix: Soil

ACL #: 303528

Date/Time Sampled: 07/29/2014 12:42

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	97.2	6.13	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 15:52	JG
T. Solids (SM2540 G)	81.5	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-1 (4)

Matrix: Soil

ACL #: 303529

Date/Time Sampled: 07/29/2014 12:44

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	73.2	5.46	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 15:58	JG
T. Solids (SM2540 G)	91.6	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-2 (0.5-2)

Matrix: Soil

ACL #: 303530

Date/Time Sampled: 07/29/2014 12:48

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	74.8	5.60	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 16:02	JG
T. Solids (SM2540 G)	89.3	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-3 (0.5-2)

Matrix: Soil

ACL #: 303531

Date/Time Sampled: 07/29/2014 12:50

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	112	5.63	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 16:09	JG
T. Solids (SM2540 G)	88.8	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-3 (4)

Matrix: Soil

ACL #: 303532

Date/Time Sampled: 07/29/2014 12:52

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	35.2	5.97	mg/kg,dw	1	07/30/2014 14:30	08/05/2014 16:22	JG
T. Solids (SM2540 G)	83.8	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-4 (0.5-2)

Matrix: Soil

ACL #: 303533

Date/Time Sampled: 07/29/2014 12:55

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	61.9	5.33	mg/kg,dw	1	07/30/2014 14:30	08/06/2014 13:29	JG
T. Solids (SM2540 G)	93.8	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-8 (0.5-2)

Matrix: Soil

ACL #: 303534

Date/Time Sampled: 07/29/2014 13:02

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	107	5.29	mg/kg,dw	1	07/30/2014 14:30	08/06/2014 13:38	JG
T. Solids (SM2540 G)	94.6	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-7 (0.5-2)

Matrix: Soil

ACL #: 303535

Date/Time Sampled: 07/29/2014 13:08

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	14.5	5.61	mg/kg,dw	1	07/30/2014 14:30	08/06/2014 13:42	JG
T. Solids (SM2540 G)	89.1	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-7 (4)

Matrix: Soil

ACL #: 303536

Date/Time Sampled: 07/29/2014 13:10

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	491	28.0	mg/kg,dw	5	07/30/2014 14:30	08/06/2014 13:56	JG
T. Solids (SM2540 G)	89.3	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Client: CDM Smith
3715 Northside Pkwy NW
Bldg 300, Suite 400
Atlanta, GA 30327-0000

Client Proj #: FS-19 / Duluth, GA
ACL Project #: 66956
Date Received: 07/29/2014
Date Reported: 08/12/2014

Contact: Mr. Andrew Romanek

Sample ID: SB-6 (0.5-2)

Matrix: Soil

ACL #: 303537

Date/Time Sampled: 07/29/2014 13:12

Analyte (Method)	Result	PQL	Units	DF	Prep Date/Time	Analysis Date/Time	Analyst
Arsenic (6010C)	47.1	5.47	mg/kg,dw	1	07/30/2014 14:30	08/06/2014 14:08	JG
T. Solids (SM2540 G)	91.4	0.5	wt %	1	08/04/2014 10:00	08/04/2014 10:00	JG

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road, Suite 100, Atlanta, GA 30360
P. O. Box 88610, Atlanta, GA 30356

QUALITY CONTROL SECTION

ADVANCED CHEMISTRY LABS, INC.

Total Arsenic (6010C) Quality Control Data

Blank:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)
	Method Blank	Soil	< 5.00

Duplicate:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)	%D
	303461	Soil	64.4	32
	303461-D	Soil	43.8	

Matrix Spike:	ACL #	Expected Value	Actual Value	% Recovery	RPD
	303462-MS	200	160	80	1
	303462-MSD	200	161	81	

ADVANCED CHEMISTRY LABS, INC.

Total Arsenic (6010C) Quality Control Data

Blank:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)
	Method Blank	Soil	< 5.00

Duplicate:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)	%D
	303481	Soil	39.9	4
	303481-D	Soil	38.1	

Matrix Spike:	ACL #	Expected Value	Actual Value	% Recovery	RPD
	303482-MS	196	151	77	2
	303482-MSD	196	154	79	

ADVANCED CHEMISTRY LABS, INC.

Total Arsenic (6010C) Quality Control Data

Blank:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)
	Method Blank	Soil	< 5.00

Duplicate:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)	%D
	303501	Soil	76.7	11
	303501-D	Soil	85.2	

Matrix Spike:	ACL #	Expected Value	Actual Value	% Recovery	RPD
	303512-MS	196	153	78	5
	303512-MSD	196	146	75	

ADVANCED CHEMISTRY LABS, INC.

Total Arsenic (6010C) Quality Control Data

Blank:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)
	Method Blank	Soil	< 5.00

Duplicate:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)	%D
	303521	Soil	49.0	5
	303521-D	Soil	51.2	

Matrix Spike:	ACL #	Expected Value	Actual Value	% Recovery	RPD
	303532-MS	192	144	75	8
	303532-MSD	192	156	81	

ADVANCED CHEMISTRY LABS, INC.

Total Arsenic (6010C) Quality Control Data

Blank:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)
	Method Blank	Soil	< 5.00

Duplicate:	ACL #	Matrix	Total Arsenic (6010C) (mg/kg)	%D
	303536	Soil	438	18
	303536-D	Soil	361	

Matrix Spike:	ACL #	Expected Value	Actual Value	% Recovery	RPD
	303537-MS	189	150	79	3
	303537-MSD	189	145	77	

ACL

ADVANCED CHEMISTRY LABS, INC.

Phone: (770) 409-1444
Fax: (770) 409-1844
e-mail: acl@acl-labs.net

3039 Amwiler Road • Suite 100 • Atlanta, GA 30360
P.O. Box 88610 • Atlanta, GA 30356
www.acl-labs.com

Sample Log-in Checklist

Client Name: CDM Smith

ACL Project Number: **66956**

Cooler Check

	Yes	No		Yes	No
Ice Present?	☐	☑	Evidence Tape Present?	☐	☑
Temperature	Room Temperature		Evidence Tape Intact?	☐	☑

For coolers with a temperature greater than 6°C or with a damaged evidence seal, the bottles affected are identified below.

	Yes	No
Chain-of-Custody Form Included?	☑	☐
Field Sampling Sheet Included?	☐	☑

Cooler Shipping and Receipt

Shipping Method: Delivered by Customer

Tracking Number:

Receipt Date: 7/29/2014

Receipt Time: 2:45 PM

Bottle Check

Acid Preserved Sample (pH Check): pH<2? N/A
(pH for VO vials to be checked upon analysis)

Base Preserved Samples (pH Check): pH>12? N/A

Chlorine Check (Positive, Negative, N/A): N/A

Condition of Containers:

	Yes	No
Evidence Tape Present on Bottles?	☐	☑
Evidence Tape Intact?	☐	☑
Loose Caps?	☐	☑
Broken Bottles?	☐	☑

Cooler Unpacked/Checked By: JA **Logged In By:** JA **Log-in Date:** 7/29/2014

Comments (if any):

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-783-4702
Address: 3715 Northside Parkway NW B. 300 S. 400 Atlanta, GA 30327	Fax #:
Project Manager: Andrew Romanek romanekAP@CDMSmith.com	Site Location: Duluth, GA
I attest that the proper field sampling procedures were used during the collection of these samples.	Project #: Project Name: FS-19
	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
DUP-1	1		X										X	7/29/14	0800	X		X	
DUP-2	1		X										X	7/29/14	0815	X		X	
DUP-3	1		X										X	7/29/14	0830	X		X	
DUP-4	1		X										X	7/29/14	0845	X		X	
DUP-5	1		X										X	7/29/14	0900	X		X	
DUP-6	1		X										X	7/29/14	0915	X		X	
SB-28 (0.5-2)	1		X										X	7/29/14	0925	X		X	
SB-40 (0.5-2)	1		X										X	7/29/14	0930	X		X	
DUP-7	1		X										X	7/29/14	0930	X		X	
SB-40 (4)	1		X										X	7/29/14	0935	X		X	

Special Detection Limits

Remarks:

TAT
Next Bus. Day ☐
2nd Bus. Day ☐
3rd Bus. Day ☐
Normal ☒

Special Handling
ACL Contract _____
Quote # _____
P.O. _____

Special Reporting Requirements

Fax ☐

Lab Use Only:
ACL Project #: 68956

Cooler Temp.
No Ice °C

QA/QC Level
Level 1 ☒ Level 2 ☐ Other ☐ _____

CUSTODY RECORD				
	Relinquished by Sampler:	Date: 7/29/14	Time: 1445	Received by:
	Relinquished by:	Date:	Time:	Received by:
	Relinquished by:	Date: 7/29/14	Time: 14:45	Received by Laboratory:

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-783-4702 Fax #:
Address: 3715 Northside Parkway NW B-300 S-400 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek romanekAP@cdmsmith.com	Project #: Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
SB-39 (0.5-2)	1		X										X	7/29/14	0940	X		X	
SB-38 (0.5-2)	1		X										X	7/29/14	0942	X		X	
SB-38 (4)	1		X										X	7/29/14	0944	X		X	
SB-37 (0.5-2)	1		X										X	7/29/14	0946	X		X	
SB-36 (0.5-2)	1		X										X	7/29/14	0948	X		X	
SB-36 (4)	1		X										X	7/29/14	0950	X		X	
SB-35 (0.5-2)	1		X										X	7/29/14	0952	X		X	
SB-34 (0.5-2)	1		X										X	7/29/14	0955	X		X	
SB-34 (4)	1		X										X	7/29/14	0957	X		X	
SB-33 (0.5-2)	1		X										X	7/29/14	0959	X		X	

Special Detection Limits

Remarks:

TAT
Next Bus. Day ☐
2nd Bus. Day ☐
3rd Bus. Day ☐
Normal ☒

Special Handling
ACL Contract _____
Quote # _____
P.O. _____

Special Reporting Requirements
Fax ☐

Lab Use Only:
ACL Project #: 66956

Cooler Temp.
No Ice °C

QA/QC Level
Level 1 ☑ Level 2 ☐ Other ☐ _____

CUSTODY RECORD

Relinquished by Sampler:	Date: 7/29/14	Time: 1445	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 7/29/14	Time: 14:45	Received by Laboratory:

3 of 9

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-783-4702 Fax #:
Address: 3715 Northside Parkway NW Building 400 Suite 400 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek romanekAPE@cdmsmith.com	Project #: Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
SB-32 (0.5-2)	1		X										X	7/29/14	1002	X		X	
SB-32 (4)	1		X										X	7/29/14	1004	X		X	
SB-31 (0.5-2)	1		X										X	7/29/14	1006	X		X	
SB-41 (0.5-2)	1		X										X	7/29/14	1009	X		X	
SB-41 (4)	1		X										X	7/29/14	1011	X		X	
SB-43 (0.5-2)	1		X										X	7/29/14	1013	X		X	
SB-42 (0.5-2)	1		X										X	7/29/14	1015	X		X	
SB-45 (0.5-2)	1		X										X	7/29/14	1026	X		X	
SB-45 (4)	1		X										X	7/29/14	1028	X		X	
SB-44 (0.5-2)	1		X										X	7/29/14	1031	X		X	

Special Detection Limits

Remarks:

TAT
Next Bus. Day ☐
2nd Bus. Day ☐
3rd Bus. Day ☐
Normal ☒

Special Handling
ACL Contract _____
Quote # _____
P.O. _____

Special Reporting Requirements

Fax ☐

Lab Use Only:
ACL Project #: 66954

Cooler Temp.
No Ice °C

QA/QC Level
Level 1 ☒ Level 2 ☐ Other ☐ _____

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	7/29/14	1445	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 7/29/14	Time: 14:45	Received by Laboratory:

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-783-4702 Fax #:
Address: 3715 Northside Parkway NW Bldg 300 Suite 400 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek romanekAR@cdmsmith.com	Project #: Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
SB-47 (0.5-2)	1		X										X	7/29/14	1034	X		X	
SB-47 (4)	1		X										X	7/29/14	1036	X		X	
SB-46 (0.5-2)	1		X										X	7/29/14	1038	X		X	
SB-49 (0.5-2)	1		X										X	7/29/14	1040	X		X	
SB-~~49~~ ~~(0.5-2)~~ (4)	1		X										X	7/29/14	1042	X		X	
SB-~~50~~ (0.5-2)	1		X										X	7/29/14	1044	X		X	
SB-52 (0.5-2)	1		X										X	7/29/14	1047	X		X	
SB-52 (4)	1		X										X	7/29/14	1050	X		X	
SB-53 (0.5-2)	1		X										X	7/29/14	1052	X		X	
SB-53 (0.5-2)	1		X										X	7/29/14	1054	X		X	

Special Detection Limits

Remarks:

TAT
Next Bus. Day ☐
2nd Bus. Day ☐
3rd Bus. Day ☐
Normal ☒

Special Handling
ACL Contract _____
Quote # _____
P.O. _____

Special Reporting Requirements
Fax ☐

Lab Use Only:
ACL Project #: 60956

Cooler Temp.
No Ice °C

QA/QC Level
Level 1 ☒ Level 2 ☐ Other ☐ _____

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	7/29/14	1445	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	7/29/14	14:45	Received by Laboratory:

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-753-4702
Address: 3715 Northside Parkway NW B 300 S.400 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek romanekAA@cdmsmith.com	Project #: Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
SB-51 (4)	1		X										X	7/28/14	1056	X		X	
SB-48 (0.5-2)	1		X										X	7/29/14	1055	X		X	
SB-30 (0.5-2)	1		X										X	7/29/14	1102	X		X	
SB-30 (4)	1		X										X	7/29/14	1104	X		X	
SB-29 (0.5-2)	1		X										X	7/29/14	1106	X		X	
SB-25 (0.5-2)	1		X										X	7/29/14	1108	X		X	
SB-25 (4)	1		X										X	7/29/14	1110	X		X	
SB-26 (0.5-2)	1		X										X	7/29/14	1116	X		X	
SB-27 (0.5-2)	1		X										X	7/29/14	1118	X		X	
SB-27 (4)	1		X										X	7/29/14	1120	X		X	

Special Detection Limits

Remarks:

TAT
Next Bus. Day ☐
2nd Bus. Day ☐
3rd Bus. Day ☐
Normal ☒

Special Handling
ACL Contract _____
Quote # _____
P.O. _____

Special Reporting Requirements

Fax ☐

Lab Use Only:
ACL Project #: 66956

Cooler Temp.
No Ice °C

QA/QC Level
Level 1 ☒ Level 2 ☐ Other ☐ _____

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	7/29/14	1445	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 7/29/14	Time: 14:45	Received by Laboratory:

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-783-4702
Address: 3715 Northside Parkway NW B. 300 S. 4100 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek	Project #:
romanekAP@cdmsmith.com	Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
SB-20 (0.5-2)	1		X										X	7/29/14	1122	X		X	
SB-21 (0.5-2)	1		X										X	7/29/14	1125	X		X	
SB-21 (4)	1		X										X	7/29/14	1127	X		X	
SB-16 (0.5-2)	1		X										X	7/29/14	1130	X		X	
SB-15 (0.5-2)	1		X										X	7/29/14	1133	X		X	
SB-15 (4)	1		X										X	7/29/14	1135	X		X	
SB-14 (0.5-2)	1		X										X	7/29/14	1138	X		X	
SB-19 (0.5-2)	1		X										X	7/29/14	1140	X		X	
SB-19 (4)	1		X										X	7/29/14	1142	X		X	
SB-13 (0.5-2)	1		X										X	7/29/14	1146	X		X	

Special Detection Limits

Remarks:

TAT
Next Bus. Day ☐
2nd Bus. Day ☐
3rd Bus. Day ☐
Normal ☒

Special Handling
ACL Contract _____
Quote # _____
P.O. _____

Special Reporting Requirements

Fax ☐

Lab Use Only:
ACL Project #: 66957

Cooler Temp.
No Ice °C

QA/QC Level
Level 1 ☒ Level 2 ☐ Other ☐ _____

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	7/29/14	1445	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 7/29/14	Time: 14:45	Received by Laboratory:

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-783-4702 Fax #:
Address: 3715 Northside Parkway NW B-300 S.400 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek romanekAP@cdmsmith.com	Project #: Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
SB-13 (4)	1		X										X	7/29/14	1148	X		X	
SB-15 (0.5-2)	1		X										X	7/29/14	1151	X		X	
SB-24 (0.5-2)	1		X										X	7/29/14	1156	X		X	
SB-23 (0.5-2)	1		X										X	7/29/14	1200	X		X	
SB-23 (4)	1		X										X	7/29/14	1202	X		X	
SB-22 (0.5-2)	1		X										X	7/29/14	1205	X		X	
SB-17 (0.5-2)	1		X										X	7/29/14	1216	X		X	
SB-17 (4)	1		X										X	7/29/14	1215	X		X	
SB-12 (0.5-2)	1		X										X	7/29/14	1223	X		X	
SB-11 (0.5-2)	1		X										X	7/29/14	1226	X		X	

Special Detection Limits

Remarks:

TAT: Next Bus. Day ☐ 2nd Bus. Day ☐ 3rd Bus. Day ☐ Normal ☒

Special Handling: ACL Contract _____ Quote # _____ P.O. _____

Special Reporting Requirements: Fax ☐

Lab Use Only: ACL Project #: 66956

Cooler Temp.: No Ice °C

QA/QC Level: Level 1 ☒ Level 2 ☐ Other ☐ _____

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	7/29/14	1445	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 7/29/14	Time: 14:45	Received by Laboratory: John Andros

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-753-4702 Fax #:
Address: 3715 Northside Parkway NW Bldg 300 Suite 400 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Remaneik remaneikaf@cdmsmith.com	Project #: Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
SB-11 (4)	1		X										X	7/29/14	1223	X		X	
SB-10 (0.5-2)	1		X										X	7/29/14	1231	X		X	
SB-9 (0.5-2)	1		X										X	7/29/14	1234	X		X	
SB-9 (4)	1		X										X	7/29/14	1236	X		X	
SB-5 (0.5-2)	1		X										X	7/29/14	1239	X		X	
SB-8 (0.5-2)	1		X										X	7/29/14	1242	X		X	
SB-1 (4)	1		X										X	7/29/14	1244	X		X	
SB-2 (0.5-2)	1		X										X	7/29/14	1248	X		X	
SB-3 (0.5-2)	1		X										X	7/29/14	1250	X		X	
SB-3 (4)	1		X										X	7/29/14	1252	X		X	

Special Detection Limits	Remarks:	TAT: Next Bus. Day ☐ 2nd Bus. Day ☐ 3rd Bus. Day ☐ Normal ☐
Special Reporting Requirements: Fax ☐	Lab Use Only: ACL Project #: 66956	Cooler Temp.: No Ice °C

Special Handling: ACL Contract _____ Quote # _____ P.O. _____

QA/QC Level: Level 1 ☐ Level 2 ☐ Other ☐ _____

CUSTODY RECORD				
Relinquished by Sampler:	Date: 7/29/14	Time: 1445	Received by:	
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date: 7/29/14	Time: 14:45	Received by Laboratory: John Andrus	

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: CDM Smith	Phone #: 404-783-4702
Address: 3715 Northside Parkway NW B. 300 S. 400 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek romanekAPcdmsmith.com	Project #:
	Project Name: FS-19
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): Nicholas Fuller

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	Arsenic	Remarks
SB-4 (0.5-2)	1		X										X	7/29/14	1255	X		X	
SB-5 (0.5-2)	1		X										X	7/29/14	1302	X		X	
SB-7 (0.5-2)	1		X										X	7/29/14	1308	X		X	
SB-7 (4)	1		X										X	7/29/14	1310	X		X	
SB-6 (0.5-2)	1		X										X	7/29/14	1312	X		X	

Special Detection Limits

Remarks:

TAT: Next Bus. Day ☐ 2nd Bus. Day ☐ 3rd Bus. Day ☐ Normal ☒

Special Handling: ACL Contract _____ Quote # _____ P.O. _____

Special Reporting Requirements

Fax ☐

Lab Use Only: ACL Project #: 66956

Cooler Temp.: No Ice °C

QA/QC Level: Level 1 ☒ Level 2 ☐ Other ☐ _____

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	7/29/14	1445	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 7/29/14	Time: 1445	Received by Laboratory:

Appendix C

Arsenic Soil Data for Surrounding Properties

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan

Fire Station 19 (HSI #10844)

Duluth, Gwinnett County, Georgia

Code	Data Source	0.5 - 2 Ft Depth
GP-1	DC	75.1
GP-2	DC	221
GP-3	DC	32.6
GP-4	DC	44.6
GP-5	DC	122
GP-6	DC	158
GP-7	DC	118
GP-8	DC	12.3
SB-1	EPD	16
SB-2	EPD	110
SB-3	EPD	120
SB-4	EPD	78
SB-5	EPD	100
SB-6	EPD	110
SB-7	EPD	86
B-10	GRDC	78.9
B-10	GRDC	41.3
B-11	GRDC	163
B-11	GRDC	102
B-12	GRDC	1.36
B-12	GRDC	10.7
B-13	GRDC	1.43
B-13	GRDC	2.65
B-14	GRDC	9.53
B-14	GRDC	10.5
B-15	GRDC	30.6
B-15	GRDC	29.9
B-16	GRDC	10
B-16	GRDC	4.62
B-17	GRDC	24.6
B-17	GRDC	24.8
B-18	GRDC	26.8
B-18	GRDC	74.8
B-19	GRDC	59.2
B-19	GRDC	42
B-1A	GRDC	4.48
B-1A	GRDC	1.04
B-20	GRDC	43.3
B-20	GRDC	13.4
B-21	GRDC	57.7
B-21	GRDC	68.3

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan

Fire Station 19 (HSI #10844)

Duluth, Gwinnett County, Georgia

Code	Data Source	0.5 - 2 Ft Depth
B-22	GRDC	196
B-22	GRDC	47.1
B-23	GRDC	28.3
B-23	GRDC	3.52
B-24	GRDC	27.9
B-24	GRDC	41.1
B-25	GRDC	52.4
B-25	GRDC	49.9
B-26	GRDC	31.8
B-26	GRDC	16.8
B-27	GRDC	46.5
B-27	GRDC	16.9
B-28	GRDC	22.7
B-28	GRDC	65.3
B-29	GRDC	16.5
B-29	GRDC	53.1
B-2A	GRDC	25.4
B-2A	GRDC	3.79
B-3	GRDC	22.9
B-3	GRDC	17.9
B-30	GRDC	21.8
B-30	GRDC	50.2
B-31	GRDC	23.8
B-31	GRDC	8.7
B-32	GRDC	6.01
B-32	GRDC	14.5
B-33	GRDC	32.2
B-33	GRDC	1.15
B-34	GRDC	16.6
B-34	GRDC	1.98
B-35	GRDC	3.7
B-35	GRDC	1.52
B-36	GRDC	0.2
B-36	GRDC	0.2
B-37	GRDC	0.78
B-37	GRDC	1.07
B-38	GRDC	0.7
B-38	GRDC	0.97
B-39	GRDC	0.82
B-39	GRDC	17
B-3A	GRDC	1.43

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan

Fire Station 19 (HSI #10844)

Duluth, Gwinnett County, Georgia

Code	Data Source	0.5 - 2 Ft Depth
B-3A	GRDC	0.003
B-4	GRDC	0.003
B-4	GRDC	0.91
B-40	GRDC	0.95
B-40	GRDC	42.2
B-41	GRDC	23
B-41	GRDC	9.98
B-42	GRDC	76.2
B-42	GRDC	4.33
B-43	GRDC	89
B-43	GRDC	8.18
B-44	GRDC	56.9
B-44	GRDC	56.4
B-45	GRDC	272
B-45	GRDC	221
B-46	GRDC	33.8
B-46	GRDC	44.8
B-47	GRDC	158
B-47	GRDC	1.77
B-48	GRDC	2.32
B-48	GRDC	6.84
B-49	GRDC	260
B-49	GRDC	44.2
B-4A	GRDC	0.3
B-4A	GRDC	0.003
B-5	GRDC	20.5
B-5	GRDC	168
B-50	GRDC	20.3
B-50	GRDC	12.1
B-51	GRDC	105
B-51	GRDC	101
B-5A	GRDC	17.9
B-5A	GRDC	2.79
B-6A	GRDC	10.9
B-6A	GRDC	17.8
B-7	GRDC	0.97
B-7	GRDC	0.98
B-8	GRDC	1.68
B-8	GRDC	43.3
B-9	GRDC	27.3
B-9	GRDC	41

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan
Fire Station 19 (HSI #10844)
Duluth, Gwinnett County, Georgia

Code	Data Source	0.5 - 2 Ft Depth
SB-A	GRDC	22.6
SB-AA	GRDC	158
SB-B	GRDC	11.2
SB-BB	GRDC	111
SB-C	GRDC	133
SB-CC	GRDC	19.3
SB-D	GRDC	60.3
SB-DD	GRDC	73.1
SB-E	GRDC	39.1
SB-F	GRDC	5.93
SB-G	GRDC	10
SB-H	GRDC	209
SB-I	GRDC	5.42
SB-J	GRDC	5.47
SB-K	GRDC	25.6
SB-L	GRDC	5.12
SB-M	GRDC	116
SB-N	GRDC	160
SB-O	GRDC	49.7
SB-P	GRDC	116
SB-Q	GRDC	122
SB-R	GRDC	117
SB-S	GRDC	41.7
SB-T	GRDC	49.5
SB-U	GRDC	5.53
SB-V	GRDC	127
SB-W	GRDC	8.15
SB-X	GRDC	85.1
SB-Y	GRDC	24.8
SB-Z	GRDC	91.4
GP-1	SK	17
GP-2	SK	0.5
GP-3	SK	99.2
GP-4	SK	19.6
GP-5	SK	107
GP-6	SK	25.1
GP-7	SK	66.7
GP-8	SK	118
B-1	GCDWR	19.7
B-2	GCDWR	6.5
B-3	GCDWR	15

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan

Fire Station 19 (HSI #10844)

Duluth, Gwinnett County, Georgia

Code	Data Source	0.5 - 2 Ft Depth
B-4	GCDWR	0.5
B-5	GCDWR	90.6
SB-1	GCDWR	97.2
SB-10	GCDWR	40.4
SB-11	GCDWR	54.2
SB-12	GCDWR	57
SB-13	GCDWR	37.4
SB-14	GCDWR	153
SB-15	GCDWR	98.1
SB-16	GCDWR	61.5
SB-17	GCDWR	31.2
SB-18	GCDWR	89.7
SB-19	GCDWR	99.3
SB-2	GCDWR	74.8
SB-20	GCDWR	96.7
SB-21	GCDWR	96.2
SB-22	GCDWR	80.3
SB-23	GCDWR	80.7
SB-24	GCDWR	83.3
SB-25	GCDWR	93.6
SB-26	GCDWR	93.6
SB-27	GCDWR	90.4
SB-28	GCDWR	31.3
SB-29	GCDWR	71.9
SB-3	GCDWR	112
SB-3	GCDWR	14.5
SB-30	GCDWR	90.1
SB-31	GCDWR	20.7
SB-32	GCDWR	78.7
SB-33	GCDWR	76.1
SB-34	GCDWR	95.6
SB-35	GCDWR	102
SB-35	GCDWR	42.5
SB-36	GCDWR	69.9
SB-37	GCDWR	83.6
SB-38	GCDWR	98.3
SB-39	GCDWR	97.7
SB-4	GCDWR	61.9
SB-40	GCDWR	60.4
SB-41	GCDWR	76.6
SB-42	GCDWR	67.2

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan

Fire Station 19 (HSI #10844)

Duluth, Gwinnett County, Georgia

Code	Data Source	0.5 - 2 Ft Depth
SB-42	GCDWR	75.9
SB-43	GCDWR	79.9
SB-44	GCDWR	63.1
SB-45	GCDWR	64.6
SB-46	GCDWR	71.6
SB-47	GCDWR	64.7
SB-48	GCDWR	63
SB-49	GCDWR	73.4
SB-5	GCDWR	59.9
SB-50	GCDWR	76.6
SB-51	GCDWR	60.2
SB-52	GCDWR	68.8
SB-52	GCDWR	88.1
SB-53	GCDWR	50.9
SB-6	GCDWR	47.1
SB-8	GCDWR	107
SB-9	GCDWR	129

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan

Fire Station 19 (HSI #10844)

Duluth, Gwinnett County, Georgia

Code	Data Source	4 - 8 Foot Depth
GP-1	DC	24.4
GP-2	DC	271
GP-3	DC	8.45
GP-4	DC	54.8
GP-5	DC	73.6
GP-6	DC	49.8
GP-7	DC	113
GP-8	DC	28.9
B-10	GRDC	40.1
B-11	GRDC	58
B-12	GRDC	1.93
B-13	GRDC	2.17
B-14	GRDC	18.7
B-15	GRDC	17.2
B-16	GRDC	32.2
B-17	GRDC	42.1
B-18	GRDC	43.6
B-19	GRDC	24.2
B-1A	GRDC	2.54
B-20	GRDC	8.48
B-21	GRDC	212
B-22	GRDC	11.6
B-23	GRDC	47.7
B-24	GRDC	36.8
B-25	GRDC	28.8
B-26	GRDC	9.97
B-27	GRDC	9.88
B-28	GRDC	31.1
B-29	GRDC	19.8
B-2A	GRDC	0.95
B-3	GRDC	38.9
B-30	GRDC	24.9
B-31	GRDC	1.38
B-32	GRDC	15.7
B-33	GRDC	1.68
B-34	GRDC	1.5
B-35	GRDC	1.9
B-36	GRDC	1.57
B-37	GRDC	1.66
B-38	GRDC	0.31
B-3A	GRDC	0.003

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan

Fire Station 19 (HSI #10844)

Duluth, Gwinnett County, Georgia

Code	Data Source	4 - 8 Foot Depth
B-41	GRDC	12.6
B-42	GRDC	31.5
B-43	GRDC	51.4
B-44	GRDC	47.2
B-45	GRDC	141
B-47	GRDC	51.7
B-48	GRDC	57.1
B-49	GRDC	24.8
B-4A	GRDC	0.003
B-5	GRDC	7.45
B-50	GRDC	33.5
B-51	GRDC	248
B-5A	GRDC	2.22
B-6A	GRDC	43.5
B-7	GRDC	0.82
B-8	GRDC	6.32
B-9	GRDC	69.2
SB-A	GRDC	24.7
SB-AA	GRDC	95.3
SB-B	GRDC	174
SB-C	GRDC	142
SB-CC	GRDC	19.1
SB-D	GRDC	44.5
SB-DD	GRDC	100
SB-F	GRDC	9.54
SB-G	GRDC	7.94
SB-H	GRDC	750
SB-I	GRDC	5.75
SB-J	GRDC	5.73
SB-K	GRDC	5.61
SB-L	GRDC	5.53
SB-M	GRDC	95.1
SB-N	GRDC	88
SB-O	GRDC	6.63
SB-P	GRDC	155
SB-Q	GRDC	18.3
SB-R	GRDC	79.7
SB-S	GRDC	34.3
SB-T	GRDC	27.6
SB-U	GRDC	207
SB-V	GRDC	95.2

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan
Fire Station 19 (HSI #10844)
Duluth, Gwinnett County, Georgia

Code	Data Source	4 - 8 Foot Depth
SB-W	GRDC	5.6
SB-X	GRDC	113
SB-Y	GRDC	16.6
SB-Z	GRDC	103
GP-1	SK	47
GP-2	SK	134
GP-3	SK	373
GP-4	SK	99.9
GP-5	SK	108
GP-6	SK	138
GP-7	SK	133
GP-8	SK	149
B-1	GCDWR	59.6
B-2	GCDWR	11.8
B-3	GCDWR	64.1
B-4	GCDWR	7.3
B-5	GCDWR	117
SB-1	GCDWR	73.2
SB-1	GCDWR	70.4
SB-11	GCDWR	32.6
SB-13	GCDWR	274
SB-15	GCDWR	5.55
SB-17	GCDWR	17.7
SB-17	GCDWR	29.1
SB-19	GCDWR	52.5
SB-19	GCDWR	337
SB-21	GCDWR	10.3
SB-23	GCDWR	32.1
SB-25	GCDWR	85
SB-25	GCDWR	107
SB-27	GCDWR	31.1
SB-3	GCDWR	35.2
SB-3	GCDWR	491
SB-30	GCDWR	106
SB-32	GCDWR	60.5
SB-34	GCDWR	33.4
SB-36	GCDWR	103
SB-38	GCDWR	371
SB-40	GCDWR	54.5
SB-41	GCDWR	70.2
SB-45	GCDWR	45.3

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

Appenix C
Soil Arsenic (mg/kg) Database

Corrective Action Plan

Fire Station 19 (HSI #10844)

Duluth, Gwinnett County, Georgia

Code	Data Source	4 - 8 Foot Depth
SB-47	GCDWR	21.8
SB-49	GCDWR	77.5
SB-51	GCDWR	218
SB-52	GCDWR	138
SB-9	GCDWR	105

DC - Diamond Crystal
EPD - Environmental Protection Division
GCDWR - Gwinnett County Department of Water Resources
GRDC - Gwinnett Regional Distribution Center
SK - Suzanna's Kitchen

CDM Smith

cdmsmith.com