SEMI-ANNUAL VRP PROGRESS REPORT

(6 MONTH)

DIAMOND CRYSTAL DULUTH, LLC
DULUTH, GA
HSI SITE NO. 10844

DECEMBER 2015

PREPARED FOR:

DIAMOND CRYSTAL DULUTH, LLC
3245 N. BERKELEY LAKE ROAD
DULUTH, GA, 30096-4972

Matthew S. Mudge
Project Manager

Mark Taylor, P.G.
Senior Geologist

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PG Certification

"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."

Mark Taylor, P.G. #1766
Senior Geologist

Date: 21 December 2015

1.0 INTRODUCTION

The Voluntary Investigation and Remediation Plan (VIRP) application for the Diamond Crystal Duluth, LLC (Diamond Crystal Duluth) facility, located at 3245 North Berkeley Lake Road in Duluth, Gwinnett County, Georgia (HSI Site No. 10844), was submitted to the Georgia Environmental Protection Division (EPD) on May 11, 2015. The VIRP was approved by the EPD in a letter dated June 8, 2015. This Progress Report provides a summary of activities conducted from June 2015 through November 2015, the first six months in the Voluntary Remediation Program (VRP).

2.0 SUMMARY OF SITE ACTIVITIES

As described in the VIRP application, certain activities are scheduled to be completed within the first six months after entry to the VRP. These activities include:

- Providing results of additional horizontal delineation of arsenic in surface soil;
- An update on subsurface conditions on the adjacent County property;
- Providing any adjustments to the Conceptual Site Model and Corrective Action Plan, if necessary;
- Submittal of a site Soil Management Plan; and,
- Submittal of a preliminary paving and site controls plan.

A summary of the activities conducted from June 2015 through November 2015 are described in the following sections.

2.1 Surface Soil Delineation of Arsenic

SynTerra completed field activities at the Diamond Crystal Duluth facility to further delineate arsenic concentrations in surface soils on the property. Twenty-three surface soil samples were collected at approximate depths of 0-6 inches below ground surface (bgs). A memorandum summarizing the soil sampling activities and results of analytical testing is provided in **Appendix A**.

The findings of this soil sampling event confirmed the results from earlier assessments, that arsenic is identified at concentrations above the Georgia Hazardous Site Response Act (HSRA) Notification Concentration and Type 4 Risk Reduction Standards (RRS). The elevated concentrations of arsenic in soil identified in the HSI Site No. 10844 properties appear to have a fairly un-uniform distribution; there are elevated concentrations in surface soils and subsurface soils at varying degrees of concentrations with no clear pattern or source established at any one parcel.

2.2 Neighboring Property Groundwater Conditions

A total of seven groundwater sampling events were conducted on two neighboring properties; both included in the HSI Site No. 10844 listing: the Gwinnett Regional Distribution Center and the Gwinnett County Fire Station No. 19. These studies date from March 2006 to July 2014. The groundwater assessment results indicate arsenic

concentrations found in soil have no impact on respective site groundwater and that arsenic in groundwater is not a concern for the properties associated with HSI Site No. 10844. A summary of groundwater testing information reviewed from assessments completed by neighboring properties is provided in the following subsections, below.

2.2.1 Gwinnett Regional Distribution Center

Between March 2006 and April 2010, six groundwater investigations were conducted at the Gwinnett Regional Distribution Center located at 3312 North Berkeley Lake Road, Duluth, Gwinnett County, Georgia. Seven constituents (arsenic, beryllium, chromium, lead, copper, nickel, and zinc) were detected in groundwater in the uppermost aquifer at the site during the initial assessment (which included collecting groundwater samples from temporary soil borings). The initial concentrations detected were relatively low, and the detections were likely the result of high turbidity and/or less robust field methods (including insufficient well development and sampling methodology). In the more recent sampling events (a total of five events), in which better field methods were employed (*i.e.*, installation of monitoring wells with proper well development and sampling methods approved by US EPA Region 4, as documented in the agency's Science and Ecosystem Support Division [SESD] operating procedures), the constituents of initial concern in groundwater were either not detected or detected at concentrations below the Federal drinking water quality standards.

The results from these five subsequent groundwater assessment events indicate that groundwater at the site is not impacted by the arsenic concentrations found in soil. The monitoring well locations and historical groundwater data from the Gwinnett Regional Distribution Center are presented in **Appendix B**[1].

2.2.2 Gwinnett County Fire Station No. 19

Two groundwater monitoring wells (MW-1 and MW-2) were installed at the Gwinnett County Fire Station No. 19 located at 3275 North Berkeley Lake Road, Duluth, Gwinnett County, Georgia. The monitoring wells were installed on July 30, 2014 and sampled on August 5, 2014 using low-flow sampling techniques. A groundwater sample was collected from each well and delivered to the analytical testing laboratory for arsenic analysis by method 6010C. The arsenic results for both samples were below the laboratory practical quantitation limit (PQL).

[1] From the Gwinnett Regional Distribution Center Voluntary Investigation and Remediation Plan, prepared by ENVIRON International Corporation in April 2011.

These groundwater assessment results indicate that arsenic in soil is not affecting groundwater at the site. The groundwater investigation section from the Gwinnett County Fire Station No. 19 Corrective Action Plan, the laboratory report for the groundwater analyses, and a figure showing the groundwater monitoring well locations are provided in **Appendix C**[2].

2.3 Conceptual Site Model

No adjustments to the Conceptual Site Model (CSM) are required at this time.

2.4 Corrective Action Plan

No adjustments to the proposed Corrective Action Plan (CAP) are required at this time.

2.5 Soil Management Plan

A Soil Management Plan (SMP) has been prepared for use by Diamond Crystal Duluth and its contractors performing ground disturbance activities at the site. The Soil Management Plan is provided in **Appendix D**.

2.6 Preliminary Paving and Site Controls Plan

A preliminary site paving and controls plan was developed for the Diamond Crystal Duluth site. A conceptual figure outlining the areas being considered for paving/capping controls is included in **Appendix E**.

During the first six months of the VRP, Diamond Crystal Duluth prepared two areas for paving located northeast of the facility building. The work completed included capping one area with asphalt and one area with gravel (in preparation for asphalt). These areas are shown on the included figure in **Appendix E**.

[2] From the Gwinnett County Fire Station No. 19 Corrective Action Plan, prepared by CDM Smith in October 2014.

3.0 RESPONSE TO VIRP APPLICATION COMMENTS

The Diamond Crystal Duluth VIRP application was approved by the EPD in a letter dated June 8, 2015. On June 12, 2015 the EPD provided a letter with comments relating to the VIRP. This section provides responses to the EPD's comments (shown in italicized text, followed by responses).

1) *The submitted application did not include any groundwater sampling data. Please provide EPD with a groundwater sampling plan. A minimum of two groundwater monitoring locations will need to be installed onsite. Please survey and utilize the neighboring properties' groundwater monitoring well locations and associated groundwater level data to construct a groundwater potentiometric map for the site.*

Upon a review of seven groundwater investigations conducted on neighboring properties (summarized in Section 2.2, above), the data indicate arsenic concentrations found in soil have no impact on respective site groundwater and that arsenic in groundwater is not a concern for the properties associated with HSI Site No. 10844, including the Diamond Crystal Duluth site.

Based on this information, additional assessment of groundwater does not appear necessary and Diamond Crystal Duluth does not plan to complete additional groundwater assessment activities.

2) *Once the RRS have been established for the applicable exposure pathways, please include an evaluation of the overland run-off route from the site and determine the potential for any offsite impacts to surface water/sediment as the result of surface erosion of impacted soils.*

The RRS for applicable exposure pathways will be reviewed for HSI Site No. 10844 and RRS will be proposed for the Diamond Crystal Duluth site in the next Semi-Annual VRP Progress Report to be submitted in June 2016. Once RRS have been established, an evaluation of the overland run-off route and the potential for offsite impacts to surface water/sediment as a result of surface erosion of impacted soils will be completed.

3) *EPD understands that the VIRP Application has indicated that the groundwater exposure pathway is incomplete based on the data provided, but requests that any environmental covenant that is to be placed on the site property as part of the planned corrective measures incorporate a groundwater use restriction to eliminate any future groundwater exposure potential.*

Based on a review of seven groundwater assessments conducted on neighboring properties included in HSI Site No. 10844 (provided in Section 2.2, above), the data indicate arsenic concentrations found in soil have no impact on respective site groundwater and that arsenic in groundwater is not a concern for the properties associated with HSI Site No. 10844. Therefore, a groundwater use restriction placed on the property does not appear warranted. Additionally, a municipal water supply is provided in Duluth and it is unlikely that future site activities will require groundwater use.

4.0 SITE ACTIVITIES PLANNED FOR NEXT 6 MONTHS

The following activities will be conducted in the next 6 months and summarized in the next Semi-Annual VRP Progress Report to be submitted in June 2016:

- The RRS for applicable exposure pathways will be reviewed for HSI Site No. 10844 and RRS will be proposed for the Diamond Crystal Duluth site;
- Report on progress with site paving and controls;
- Update on subsurface conditions on adjacent property; and,
- Update the CSM and CAP, if necessary.

5.0 SUMMARY

All activities related to the VIRP implementation to be completed within the first six months have been completed. A revised milestone schedule is provided in **Table 1**, below.

Table 1.0 Revised Milestone Schedule

Timeline	Date	Activity	Status
-	June 8, 2015	VIRP Application Approved	Complete
Within 45 days of VRP entry	July 21, 2015	Filing of Affidavit with clerk of Superior Court of Gwinnett County pursuant to O.C.G.A. §44-2-20	Complete
Within 30 days of filing affidavit	August 10, 2015	Submittal of copy of receipt of recorded Affidavit to EPD	Complete
Due within first 6 months	December 2015	Provide results of additional horizontal delineation of arsenic in surface soil	Complete
		Update on subsurface conditions on adjacent County Property	
		Submittal of Soil Management Plan	
		Submittal of preliminary paving and site controls plan	
Due within first 12 Months	June 2016	Review RRS for applicable exposure pathways and proposed RRS for the Diamond Crystal Duluth site	Pending
		Report on progress with site paving and controls plan	
		Update on subsurface conditions on adjacent property	
		Adjustments to CSM and CAP, if necessary	
Due within first 18 Months	December 2016	Evaluate overland run-off route and the potential for offsite impacts to surface water/sediment as a result of surface erosion of impacted soils	
		Report on progress with site paving and controls plan	
		Update on subsurface conditions on adjacent property	
		Adjustments to CSM and CAP, if necessary	
Due within first 24 Months	June 2017	Report on progress with site paving and controls	
		Update on subsurface conditions on adjacent properties	
		Adjustments to CSM and CAP, if necessary	

Table 1.0 Revised Milestone Schedule (cont.)

Timeline	Date	Activity	Status
Due within first 30 Months	December 2017	Report on progress with site paving and controls	
		Update on subsurface conditions on adjacent properties	
		Adjustments to CSM and CAP, if necessary	
Due within first 60 Months	June 2020	Report on progress with site paving and controls	
		Submit the final Compliance Status Report certifying completion of the CAP	

6.0 MONTHLY INVOICE SUMMARY

The VRP requires that the professional engineer/geologist specified in the VIRP application oversee the implementation of the VIRP in accordance with the provisions, purposes, standards and policies of the Georgia Voluntary Remediation Program Act. During the period from June 2015 through November 2015, SynTerra staff invoiced 37.5 hours on this project. A monthly summary of hours invoiced and a description of services provided is shown in **Table 2**, below.

Table 2.0 Summary of Monthly Hours Invoiced

Month	Hours Billed	Description of Activities
June 2015	0.5	Reviewed EPD correspondence
July 2015	5	Affidavit support & filing Preliminary paving and site controls plan
August 2015	0	
September 2015	0	
October 2015	10	Surface soil summary memo Soil Management Plan
November 2015	22	Surface soil summary memo (cont.) Soil Management Plan (cont.) Review groundwater assessments from other properties included in HSI Site No. 10844 Preliminary paving and site controls plan

APPENDIX A

ARSENIC ASSESSMENT IN SURFACE SOILS

TECHNICAL MEMORANDUM

Date: December 21, 2015 File: 918.05

To: Michael Putnam – Diamond Crystal Duluth, LLC

From: Matthew S. Mudge; Mark Taylor, P.G.

Subject: Arsenic Assessment in Surface Soils
Diamond Crystal Duluth Facility
3245 North Berkeley Lake Road; Duluth, GA

This memorandum summarizes environmental assessment activities performed by SynTerra in November 2014 at 3245 North Berkeley Lake Road, Duluth, Georgia. The purpose of the field investigation was to further assess arsenic in surface soils at the Diamond Crystal Duluth, LLC (Duluth Diamond Crystal) facility.

1.0 FIELD INVESTIGATION

The fieldwork activities were completed on November 18, 2014 and included the collection of 23 surface soil samples at 21 locations by means of a hand-held stainless steel direct push coring device (as typically used in soil surveys). Sample locations were distributed around the Diamond Crystal Duluth property, predominantly in landscaping areas; sampling locations are shown on **Figure 1**.

This section describes the methods used during the field investigation.

1.1 SAMPLING ACTIVITIES

Sampling activities were conducted by SynTerra personnel and included the advancement of shallow soil borings at 21 locations with soil samples collected from each location. Sample locations are shown on **Figure 1**.

1.1.1 Sample Collection and Processing

Borings were advanced from the ground surface to 6 inches below-ground surface (bgs) using a 1-inch diameter stainless steel direct push coring device. Approximately 3-4 shallow borings were collected at each location to obtain enough sample volume for laboratory analysis. All borings were advanced within a 2-foot diameter area. A total of 21 soil samples, in addition to two duplicates (at different locations) were collected from the sampling locations.

Sampling information was recorded on field logs and included date, sampling method, sample IDs and depths, soil classification, field observations, and any other applicable notes. One boring from each location was logged using the Unified Soil Classification System. A summary of boring and soil sampling information is provided in **Table 1**.

Non-soil items such as rocks, plant roots, or grass was noted and then removed from the sample. Each sample was placed in pre-labeled sampling containers, placed in a chilled cooler, and delivered to the analytical testing laboratory under standard chain-of-custody protocols.

1.2 DECONTAMINATION PROCEDURES

Soil samples were collected using a combination of dedicated, single-use equipment and decontaminated, reusable equipment. Dedicated, single-use sampling equipment included nitrile gloves and laboratory-provided sample jars. Reusable sampling equipment included the stainless steel direct push coring device. The reusable equipment was decontaminated to prevent cross-contamination using the following 3-stage procedure:

1. Wash with a solution of non-phosphate detergent and potable water.
2. Rinse with potable water.
3. Rinse with potable water.

1.3 INVESTIGATION-DERIVED WASTE

Soil cuttings generated during borehole advancement were used to backfill the boring locations and decontamination water was placed on the ground surface within the investigation area and allowed to percolate into the subsurface. Single-use equipment was placed in a garbage bin for disposal as municipal solid waste.

2.0 ANALYTICAL TESTING

Twenty-one soil samples and two field duplicates were collected from 21 locations on November 18, 2014. The samples were submitted to Analytical Environmental Services (AES) in Atlanta, Georgia for analysis. Chain-of-custody procedures were followed from sample collection to sample analysis.

2.1 ANALYTICAL METHODS

The twenty-three soil samples were analyzed for total arsenic by United States Environmental Protection Agency (US EPA) Method 6010C.

2.2 ANALYTICAL RESULTS

Results of the analytical testing are summarized in **Table 1**. The laboratory analytical reports and chain-of-custody documentation for the sampling activities are included in **Attachment 1**.

A data quality assessment was performed on sample data collected from the site in November 2014. The laboratory data was reviewed for precision, accuracy, and completeness in accordance with the *US EPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (EPA540-R-10-011, January 2010), and the most recently promulgated versions of the analytical methods.

Upon receipt of the laboratory analytical results, the data package was reviewed for completeness to verify the appropriate samples were collected and the requested analyses performed. The sample collection logs were reviewed and compared against the chain-of-

custody documentation to verify the sample collection information was properly transcribed. The chain-of-custody forms were then checked against the laboratory sample check-in documentation. Requirements for proper handling and preservation were met and the samples were properly checked-in and analyzed for the requested analyses.

Laboratory batch quality control data were then evaluated for precision, accuracy, and completeness. Only minor, non-material discrepancies were noted in the quality control data provided by the laboratory. Field duplicate results were also compared to verify the sample collection system was under control and generally showed good replication.

Based on this review, the data is usable for quantitative reporting and decision-making purposes as reported.

3.0 DISCUSSION OF RESULTS

Arsenic was detected in all soil samples analyzed. Analytical results are presented in **Table 1** with soil samples detecting arsenic concentrations above the Georgia Hazardous Site Response Act Rules Notification Concentration and the Type 4 Risk Reduction Standards (RSS) shown in bold. All but one soil sample detected arsenic at concentrations exceeding the Type 4 RRS, see **Table 1**. The highest arsenic concentration detected from any sample was 208 mg/kg at SS-05, located along the north side of the facility building (**Figure 1**). The lowest arsenic concentration detected was 24.5 mg/kg (below the Type 4 RRS) at SS-18, located at the southern property boundary.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the soil sampling and analytical testing completed and summarized in this memorandum, the elevated concentrations of arsenic in surface soil identified at the site appear to have a fairly un-uniform distribution; there are elevated concentrations in surface soils at varying degrees of concentrations with no clear pattern or source area established.

The results of this assessment should be used in conjunction with earlier studies of the site, as well as with assessments from neighboring properties, in evaluating the Corrective Action Plan for the Diamond Crystal Duluth property.

If there are any questions related to the activities performed or the findings of this assessment, please contact us at (864) 421-9999.

ATTACHMENTS: FIGURE 1 – ARSENIC CONCENTRATIONS IN SURFACE SOIL
TABLE 1 – SUMMARY OF SOIL SAMPLING RESULTS
ATTACHMENT 1 – LABORATORY REPORT

SS-01
87.7 ppm

SS-02
151 ppm

SS-03
142 ppm

SS-04
120 ppm

SS-07
84.2 ppm

SS-09
187 ppm

SS-10
67.5 ppm

SS-11
55.7 ppm

SS-15
120 ppm

SS-16
92.1 ppm

SS-17
57 ppm

SS-18
24.5 ppm

SS-19
89.2 ppm

SS-20
72.1 ppm

SS-21
116 ppm

SS-05
208 ppm

SS-06
164 ppm

SS-08
112 ppm

SS-12
120 ppm

SS-13
48.9 ppm

SS-14
57 ppm

N 59°05'30"E 566.06'

S 59°27'45"W 565.09'

N 30°27'45"W 362.31'

S 30°18'48"E 395.97'

ASPHALT

ASPHALT

ASPHALT

ENTER

ENTER

NORTH BERKELEY LAKE ROAD, 100' R/W

EMPLOYEE PARKING

SLUDGE TANK

PRETREATMENT

PROPANE STORAGE

TRASH COMPACTOR

SHIPPING & RECEIVING

LIFT STATION

GRAVEL

METAL STORAGE

COMPRESSOR AREA

TRANSFORMER

CONTAINMENT WALL

ST

ST

DIAMOND CRYSTAL BRANDS
DULUTH PLANT

1 STORY BRICK BUILDING
85,320 SQUARE FOOT
HEIGHT 25'

LEGEND

APPROXIMATE SITE BOUNDARY

SS-18
24.5 ppm

SURFACE SOIL SAMPLE LOCATION WITH ARSENIC CONCENTRATION
(in parts per million)

GRAPHIC SCALE
25 0 25 50
IN FEET

148 RIVER STREET, SUITE 220
GREENVILLE, SOUTH CAROLINA 29601
PHONE 864-421-9999
www.synterracorp.com

DRAWN BY: J. COLEMAN
PROJECT MANAGER: M. MUDGE
LAYOUT: FIGURE 4-As CONCENTRATIONS
DATE: 12/17/2015

12/10/2014 1:37 PM P:\Hormel .918\05.Diamond Crystal Brands\02.Surface Soil Asmnt & Mtg W Facility\Drawings\9180502-FIGURES.dwg

FIGURE 1
ARSENIC CONCENTRATIONS IN SURFACE SOIL
DIAMOND CRYSTAL DULUTH
3245 NORTH BERKELEY LAKE ROAD
DULUTH, GEORGIA

Map is referenced to Georgia State Plane Coordinate System NAD83
Soil Samples collected by SynTerra on 11-15-2014
SOURCE:
SPCC Site Plan (Sheet No. N10101) furnished to SynTerra by Diamond Crystal Brands

Table 1
Summary of Soil Sampling Results
Diamond Crystal Duluth, LLC
3245 North Berkeley Lake Road
Duluth, Georgia

Boring Location	Date	Sampling Method	Depth (inches bgs)	Arsenic Concentration[2] (mg/kg) <CAS 7440-38-2>	Notification Concentration[3] (mg/kg)	Type 4 Risk Reduction Standard[4] (mg/kg)	USCS Soil Type
SS-01	11/18/14	Direct Push Core[1]	0-6	**87.7**	41	38/41	Lean Clay (ML): brown/red silty clay with sand. Removed thick layer of overyling organic matter.
SS-02	11/18/14	Direct Push Core[1]	0-6	**151**	41	38/41	Lean Clay (ML): brown/red silty clay with sand. Removed thick layer of overyling organic matter. Saturated.
SS-03	11/18/14	Direct Push Core[1]	0-6	**142**	41	38/41	Lean Clay (ML): brown/red silty clay with increasing sand.
SS-04	11/18/14	Direct Push Core[1]	0-6	**120**	41	38/41	Silty Sand (SC): brown/red silty sand with clay. Removed overlying organic material.
SS-05	11/18/14	Direct Push Core[1]	0-6	**208**	41	38/41	Silty Sand (SC): brown/red silty sand. Removed organic material from sample.
SS-06	11/18/14	Direct Push Core[1]	0-6	**164**	41	38/41	Silty Sand (SC): brown/red silty sand. Removed organic material from sample.
SS-07	11/18/14	Direct Push Core[1]	0-6	**84.2**	41	38/41	Silty Sand (SC): brown/gray silty sand. Removed thick layer of overlying organic matter.
SS-07D	11/18/14	Direct Push Core[1]	0-6	**54.7**	41	38/41	Silty Sand (SC): brown/gray silty sand. Removed thick layer of overlying organic matter.
SS-08	11/18/14	Direct Push Core[1]	0-6	**112**	41	38/41	Silty Sand (SC): brown/red silty sand. Removed organic material from sample.
SS-09	11/18/14	Direct Push Core[1]	0-6	**187**	41	38/41	Silty Sand (SC): brown/red silty sand. Removed organic material from sample.
SS-10	11/18/14	Direct Push Core[1]	0-6	**67.5**	41	38/41	Silty Sand (SC): brown/red silty sand. Removed organic material from sample.
SS-11	11/18/14	Direct Push Core[1]	0-6	**55.7**	41	38/41	Silty Sand (SC): brown/red silty sand. Removed organic material from sample.
SS-12	11/18/14	Direct Push Core[1]	0-6	**120**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-13	11/18/14	Direct Push Core[1]	0-6	**48.9**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-14	11/18/14	Direct Push Core[1]	0-6	**57.0**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-15	11/18/14	Direct Push Core[1]	0-6	**120**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-16	11/18/14	Direct Push Core[1]	0-6	**92.1**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-17	11/18/14	Direct Push Core[1]	0-6	**57.0**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-18	11/18/14	Direct Push Core[1]	0-6	24.5	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-19	11/18/14	Direct Push Core[1]	0-6	**72.3**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-19D	11/18/14	Direct Push Core[1]	0-6	**89.2**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-20	11/18/14	Direct Push Core[1]	0-3	**72.1**	41	38/41	Silty Sand (SC): brown silty sand with clay.
SS-21	11/18/14	Direct Push Core[1]	0-6	**116**	41	38/41	Silty Sand (SC): brown silty sand with clay. Removed layer of overlying organic material.

Notes:

[1] = Direct push approach using stainless steel soil coring device

[2] = Total metals by US EPA Method 6010C

bgs = below ground surface

USCS = Unified Soil Classification System

mg/kg = milligrams per kilogram

[3] = Concentrations as listed in Appendix I of the Georgia Rules of Hazardous Site Response

[4] = Concentrations based on Georgia EPD Risk Reduction Standards 391-3-19-.07

Bold value idicates the concentration exceeds the risk reduction standard

Prepared by: MSM
Checked by: JYT

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

November 26, 2014

Matt Mudge
SynTerra
148 River St
Greenville SC 29601

TEL: (864) 421-9999
FAX: (864) 421-9909

RE: Diamond Crystal Brands

Dear Matt Mudge: Order No: 1411F62

Analytical Environmental Services, Inc. received 23 samples on 11/18/2014 4:42:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Tara Esbeck
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1411F62

Date: 11/18/14 Page 1 of 2

COMPANY:	ADDRESS:
SynTerra Corporation	148 River St., Suite 220 Greenville, SC 29601
PHONE: 864-421-9999	FAX: 864-421-9909
SAMPLED BY: Matt Mudge	SIGNATURE: M.S. Mudge

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	Total Hexane	PRESERVATION (See codes) NA	REMARKS	No # of Containers
1	SS-01	11/18/14	11:56	X		SO	X	X		1
2	SS-02		12:07				X	X		
3	SS-03		12:18				X	X		
4	SS-04		12:28				X	X		
5	SS-05		12:36				X	X		
6	SS-06		12:43				X	X		
7	SS-07		12:47				X	X		
8	SS-07D		12:48				X	X		
9	SS-08		12:56				X	X		
10	SS-09		13:03				X	X		
11	SS-10		13:08				X	X		
12	SS-11		13:19				X	X		
13	SS-12		13:25				X	X		
14	SS-13		13:30				X	X		

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: M.S. Mudge	11/18/14 1642	1: Cataya Reaves	11/18/14 4:42p
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Diamond Crystal Brands
PROJECT #: 918.05
SITE ADDRESS: 3245 North Berkeley Lake Rd; Duluth, GA
SEND REPORT TO: mmudge@SynTerracorp.com
INVOICE TO: (IF DIFFERENT FROM ABOVE) SynTerra
QUOTE #:_____ PO#: 918.05.02

RECEIPT
Total # of Containers

Turnaround Time Request
- (X) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other _____

STATE PROGRAM (if any): GA EPD
E-mail? (Y) N; Fax? Y (N)
DATA PACKAGE: I (II) III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1411F62

Date: 11/18/14 Page 2 of 2

COMPANY:	ADDRESS:
Syn Tera Corporation	148 River St; Suite 220 Greenville, SC 29601
PHONE: 864-421-9999	FAX: 864-421-9909
SAMPLED BY: Matt Mundge	SIGNATURE: M.S. Mundge

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	Total Arsenic	PRESERVATION (See codes) NA	No # of Containers
1	SS-14	11/18/14	13:34	X		SO	X	X	1
2	SS-15		13:39				X	X	
3	SS-16		13:49				X	X	
4	SS-17		13:56				X	X	
5	SS-18		14:02				X	X	
6	SS-19		14:09				X	X	
7	SS-19D		14:10				X	X	
8	SS-20		14:20				X	X	
9	SS-21		14:27				X	X	
10									
11									
12									
13									
14									

ANALYSIS REQUESTED

Visit our website **www.aesatlanta.com** to check on the status of your results, place bottle orders, etc.

REMARKS

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: M.S. Mundge	11/18/14 @ 16:42	1: Lataya Reeves	11/18/14 4:42p
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / CLIENT / FedEx UPS MAIL COURIER
GREYHOUND OTHER_____ VIA:

PROJECT INFORMATION
PROJECT NAME: Diamond Crystal Brands
PROJECT #: 918.05
SITE ADDRESS: 3245 North Berkeley Lake Rd; Duluth, GA
SEND REPORT TO: mmundge@syntheracorp.com
INVOICE TO: (IF DIFFERENT FROM ABOVE) Syn Tera
QUOTE #:_____ PO#: 918.05.02

RECEIPT
Total # of Containers: 23

Turnaround Time Request
- (X) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other _____

STATE PROGRAM (if any): GA EPD
E-mail? (Y) N; Fax? Y (N)
DATA PACKAGE: I (II) III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-01
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 11:56:00 AM
Lab ID:	1411F62-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C					**(SW3050B)**			
Arsenic	87.7	5.62		mg/Kg-dry	199623	1	11/24/2014 12:35	MR
PERCENT MOISTURE D2216								
Percent Moisture	22.2	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-02
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 12:07:00 PM
Lab ID:	1411F62-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	151	7.19		mg/Kg-dry	199623	1	11/24/2014 12:37	MR
PERCENT MOISTURE D2216								
Percent Moisture	35.7	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-03
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 12:18:00 PM
Lab ID:	1411F62-003	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	142	5.92		mg/Kg-dry	199623	1	11/24/2014 12:40	MR
PERCENT MOISTURE D2216								
Percent Moisture	21.5	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-04
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 12:28:00 PM
Lab ID:	1411F62-004	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	120	6.05		mg/Kg-dry	199623	1	11/24/2014 12:42	MR
PERCENT MOISTURE D2216								
Percent Moisture	21.3	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-05
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 12:36:00 PM
Lab ID:	1411F62-005	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	208	5.94		mg/Kg-dry	199623	1	11/24/2014 12:44	MR
PERCENT MOISTURE D2216								
Percent Moisture	21.5	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-06
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 12:43:00 PM
Lab ID:	1411F62-006	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	164	5.25		mg/Kg-dry	199623	1	11/24/2014 12:55	MR
PERCENT MOISTURE D2216								
Percent Moisture	15.0	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-07
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 12:47:00 PM
Lab ID:	1411F62-007	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	84.2	5.90		mg/Kg-dry	199623	1	11/24/2014 13:04	MR
PERCENT MOISTURE D2216								
Percent Moisture	17.2	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-07D
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 12:48:00 PM
Lab ID:	1411F62-008	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	54.7	6.13		mg/Kg-dry	199623	1	11/24/2014 13:06	MR
PERCENT MOISTURE D2216								
Percent Moisture	19.1	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-08
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 12:56:00 PM
Lab ID:	1411F62-009	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	112	6.23		mg/Kg-dry	199623	1	11/24/2014 13:09	MR
PERCENT MOISTURE D2216								
Percent Moisture	21.6	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-09
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:03:00 PM
Lab ID:	1411F62-010	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	187	5.79		mg/Kg-dry	199623	1	11/24/2014 13:11	MR
PERCENT MOISTURE D2216								
Percent Moisture	18.1	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-10
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:08:00 PM
Lab ID:	1411F62-011	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	67.5	5.68		mg/Kg-dry	199623	1	11/24/2014 13:13	MR
PERCENT MOISTURE D2216								
Percent Moisture	20.9	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-11
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:19:00 PM
Lab ID:	1411F62-012	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	55.7	6.20		mg/Kg-dry	199623	1	11/24/2014 13:15	MR
PERCENT MOISTURE D2216								
Percent Moisture	21.0	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-12
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:25:00 PM
Lab ID:	1411F62-013	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	120	7.15		mg/Kg-dry	199662	1	11/24/2014 17:20	TA
PERCENT MOISTURE D2216								
Percent Moisture	33.8	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-13
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:30:00 PM
Lab ID:	1411F62-014	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	48.9	7.74		mg/Kg-dry	199662	1	11/24/2014 17:48	TA
PERCENT MOISTURE D2216								
Percent Moisture	40.5	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-14
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:34:00 PM
Lab ID:	1411F62-015	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	57.0	6.40		mg/Kg-dry	199662	1	11/24/2014 17:50	TA
PERCENT MOISTURE D2216								
Percent Moisture	25.9	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-15
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:39:00 PM
Lab ID:	1411F62-016	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	120	5.98		mg/Kg-dry	199662	1	11/24/2014 17:52	TA
PERCENT MOISTURE D2216								
Percent Moisture	27.5	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-16
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:49:00 PM
Lab ID:	1411F62-017	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	92.1	5.65		mg/Kg-dry	199662	1	11/24/2014 17:54	TA
PERCENT MOISTURE D2216								
Percent Moisture	15.9	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-17
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 1:56:00 PM
Lab ID:	1411F62-018	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	57.0	4.32		mg/Kg-dry	199662	1	11/24/2014 17:57	TA
PERCENT MOISTURE D2216								
Percent Moisture	19.5	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-18
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 2:02:00 PM
Lab ID:	1411F62-019	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	24.5	4.94		mg/Kg-dry	199662	1	11/24/2014 17:59	TA
PERCENT MOISTURE D2216								
Percent Moisture	9.61	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-19
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 2:09:00 PM
Lab ID:	1411F62-020	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	72.3	5.44		mg/Kg-dry	199662	1	11/24/2014 18:01	TA
PERCENT MOISTURE D2216								
Percent Moisture	18.6	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-19D
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 2:10:00 PM
Lab ID:	1411F62-021	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	89.2	4.85		mg/Kg-dry	199662	1	11/24/2014 18:03	TA
PERCENT MOISTURE D2216								
Percent Moisture	17.9	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-20
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 2:20:00 PM
Lab ID:	1411F62-022	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	72.1	6.03		mg/Kg-dry	199662	1	11/24/2014 18:05	TA
PERCENT MOISTURE D2216								
Percent Moisture	22.1	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 26-Nov-14

Client:	SynTerra	**Client Sample ID:**	SS-21
Project Name:	Diamond Crystal Brands	**Collection Date:**	11/18/2014 2:27:00 PM
Lab ID:	1411F62-023	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010C (SW3050B)								
Arsenic	116	5.00		mg/Kg-dry	199662	1	11/24/2014 18:07	TA
PERCENT MOISTURE D2216								
Percent Moisture	11.2	0		wt%	R280660	1	11/24/2014 09:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Synterra Corp Work Order Number 1411F62

Checklist completed by Jann B 11/19/14
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (0°≤6°C)*	Yes ✓	No __	

Cooler #1 3.2 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted ✓	Yes __ No __
Water - pH acceptable upon receipt?	Yes __	No __ Not Applicable ✓

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: SynTerra
Project Name: Diamond Crystal Brands
Workorder: 1411F62

ANALYTICAL QC SUMMARY REPORT

BatchID: 199623

Sample ID: **MB-199623**	Client ID:				Units: **mg/Kg**		Prep Date: **11/21/2014**		Run No: **280631**	
SampleType: **MBLK**	TestCode: **METALS, TOTAL** **SW6010C**				BatchID: **199623**		Analysis Date: **11/24/2014**		Seq No: **5935500**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									

Sample ID: **LCS-199623**	Client ID:				Units: **mg/Kg**		Prep Date: **11/21/2014**		Run No: **280631**	
SampleType: **LCS**	TestCode: **METALS, TOTAL** **SW6010C**				BatchID: **199623**		Analysis Date: **11/24/2014**		Seq No: **5935499**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	45.86	5.00	50.00		91.7	80	120				

Sample ID: **1411H76-001AMS**	Client ID:				Units: **mg/Kg-dry**		Prep Date: **11/21/2014**		Run No: **280631**	
SampleType: **MS**	TestCode: **METALS, TOTAL** **SW6010C**				BatchID: **199623**		Analysis Date: **11/24/2014**		Seq No: **5935504**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	49.21	5.79	57.87		85.0	75	125				

Sample ID: **1411H76-001AMSD**	Client ID:				Units: **mg/Kg-dry**		Prep Date: **11/21/2014**		Run No: **280631**	
SampleType: **MSD**	TestCode: **METALS, TOTAL** **SW6010C**				BatchID: **199623**		Analysis Date: **11/24/2014**		Seq No: **5935505**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	46.97	5.79	57.87		81.2	75	125	49.21	4.66	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: SynTerra
Project Name: Diamond Crystal Brands
Workorder: 1411F62

ANALYTICAL QC SUMMARY REPORT

BatchID: 199662

Sample ID: **MB-199662** Client ID: Units: **mg/Kg** Prep Date: **11/24/2014** Run No: **280668**
SampleType: **MBLK** TestCode: **METALS, TOTAL** **SW6010C** BatchID: **199662** Analysis Date: **11/24/2014** Seq No: **5937885**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									

Sample ID: **LCS-199662** Client ID: Units: **mg/Kg** Prep Date: **11/24/2014** Run No: **280668**
SampleType: **LCS** TestCode: **METALS, TOTAL** **SW6010C** BatchID: **199662** Analysis Date: **11/24/2014** Seq No: **5937887**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	49.32	5.00	50.00		98.6	80	120				

Sample ID: **1411F62-013AMS** Client ID: **SS-12** Units: **mg/Kg-dry** Prep Date: **11/24/2014** Run No: **280668**
SampleType: **MS** TestCode: **METALS, TOTAL** **SW6010C** BatchID: **199662** Analysis Date: **11/24/2014** Seq No: **5937890**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	177.9	7.15	71.46	120.4	80.4	75	125				

Sample ID: **1411F62-013AMSD** Client ID: **SS-12** Units: **mg/Kg-dry** Prep Date: **11/24/2014** Run No: **280668**
SampleType: **MSD** TestCode: **METALS, TOTAL** **SW6010C** BatchID: **199662** Analysis Date: **11/24/2014** Seq No: **5937891**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	182.2	7.15	71.46	120.4	86.5	75	125	177.9	2.40	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

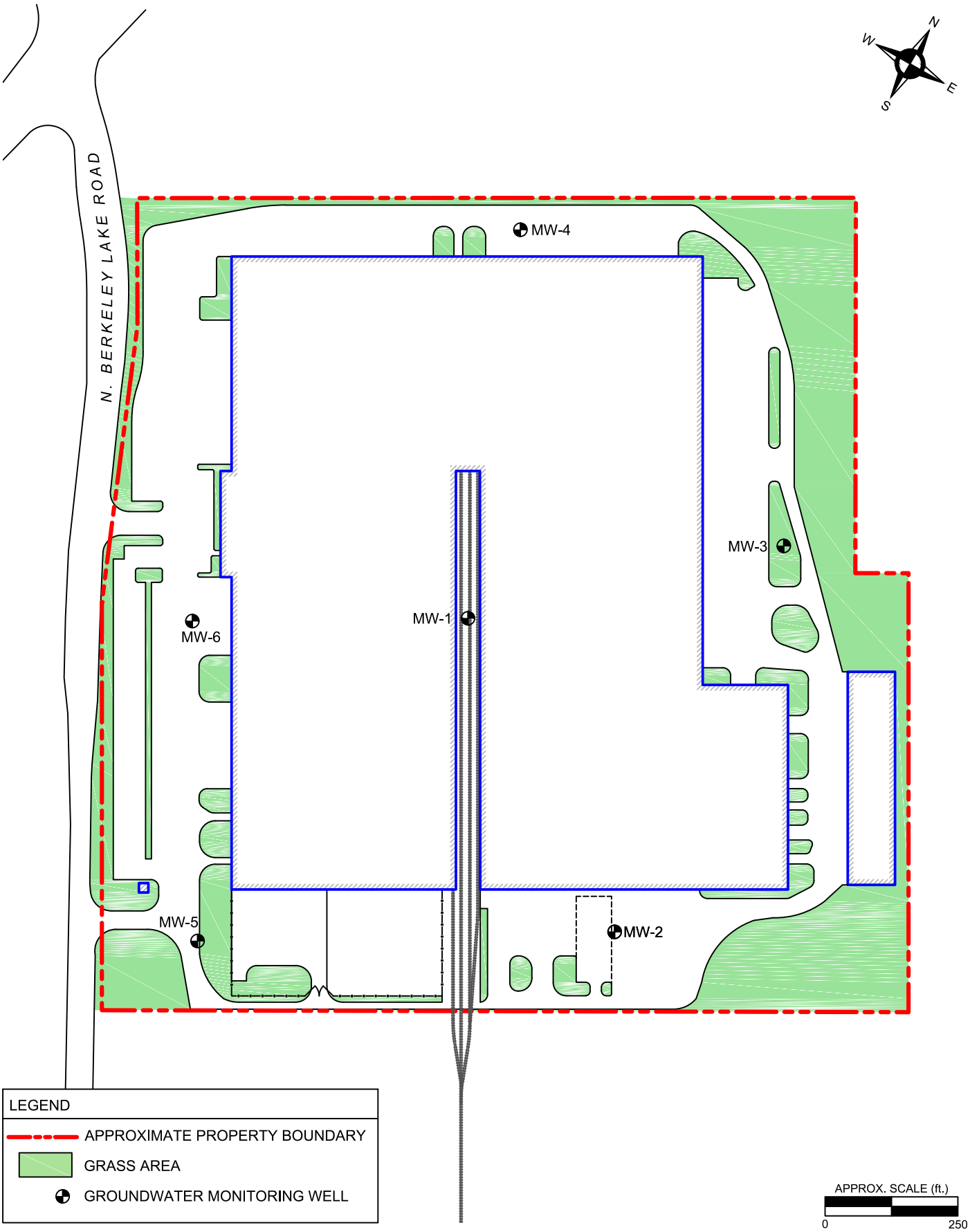
APPENDIX B

GWINNETT REGIONAL DISTRIBUTION CENTER GROUNDWATER ASSESSMENT DATA

Table 3 - Summary of Groundwater Analytical Data
Gwinnett Regional Distribution Center
HSI No. 10844

Well ID	Date Sampled	Arsenic (mg/L)	Beryllium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Copper (mg/L)	Nickel (mg/L)	Zinc (mg/L)	Source
B-2	3/20/2006	0.404	0.0182	0.14	0.561	0.233	0.044	0.229	IVI Phase II (March 2006)
B-3	3/20/2006	0.027	0.0015	0.007	0.027	0.016	0.012	0.037	
MW-1	10/7/2006	<0.008	<0.003	<0.002	<0.004	--	--	--	Solutech, Inc. (2006 - 2010)
	10/7/2006 *	<0.008	<0.003	<0.002	<0.004	--	--	--	
	6/1/2007	<0.0004	<0.000133	<0.00002	<0.00001	--	--	--	
	6/19/2008	<0.0004	<0.000133	<0.00002	<0.00001	--	--	--	
	3/3/2010	<0.0004	--	--	--	--	--	--	
MW-2	10/7/2006	<0.008	<0.003	<0.002	<0.004	--	--	--	
	6/1/2007	<0.0004	<0.000133	<0.00002	<0.00001	--	--	--	
	6/19/2008	<0.0004	<0.000133	<0.00002	<0.00001	--	--	--	
	3/3/2010	<0.0004	--	--	--	--	--	--	
MW-3	6/1/2007	<0.0004	<0.000133	0.013	0.011	--	--	--	
	6/19/2008	<0.0004	<0.000133	<0.00002	<0.00001	--	--	--	
	3/3/2010	0.009	--	--	--	--	--	--	
MW-4	6/1/2007	<0.0004	<0.000133	<0.00002	0.014	--	--	--	
	6/19/2008	<0.0004	<0.000133	<0.00002	<0.00001	--	--	--	
	3/3/2010	<0.0004	--	--	--	--	--	--	
MW-5	6/1/2007	<0.0004	<0.000133	<0.00002	0.009	--	--	--	
	6/1/2007 *	<0.0004	<0.000133	<0.00002	0.008	--	--	--	
	6/19/2008	<0.0004	<0.000133	<0.00002	<0.00001	--	--	--	
	3/2/2010	<0.0004	--	--	--	--	--	--	
MW-6	3/3/2010	0.0025	--	--	--	--	--	--	Solutech, Inc.
	4/19/2010	<0.01	--	--	--	--	--	--	ENVIRON 2010

Notes:
Sb, Cd, Se, Ag, Th, Hg, VOCs and SVOCs were not detected during the IVI 2006 sampling
mg/L Milligrams per liter (parts per million)
< Analyte was not detected at the laboratory PQL indicated
* Duplicate sample



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ENVIRON

MONITORING WELL LOCATIONS
GWINNETT REGIONAL DISTRIBUTION CENTER - HSI No. 10844
3312 NORTH BERKELEY LAKE ROAD
DULUTH, GEORGIA

Figure
10

Drafter: ELS/APR | Date: 4/11/11 | Contract Number: 07-24851A | Approved: | Revised:

N. BERKELEY LAKE ROAD

MW-4
485.32

MW-3
451.00

MW-1
491.60

MW-6[a]

MW-5
487.21

MW-2
476.74

COVERED CONCRETE PAD
(FORMER CCA LUMBER
STORAGE)

495
490
485
480
475
470
465
460
455
450

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- GRASS AREA
- POTENTIOMETRIC CONTOUR
- GROUNDWATER MONITORING WELL
- a GROUNDWATER ELEVATION DATA NOT AVAILABLE

NOTE: SEWER LOCATIONS NOT AVAILABLE

N
W
E
S

APPROX. SCALE (ft.)
0
200

ENVIRON

POTENTIOMETRIC SURFACE MAP - JUNE 2008
GWINNETT REGIONAL DISTRIBUTION CENTER - HSI
No. 10844
3312 NORTH BERKELEY LAKE ROAD
DULUTH, GEORGIA

DATE:	CONTRACT NUMBER:		FIGURE
4/8/11	07-24851A		4
DRAFTER:	APPROVED: ELS/APR/KEM	REVISED:	

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APPENDIX C

GWINNETT COUNTY FIRE STATION NO.19 GROUNDWATER ASSESSMENT DATA

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.

Legend

⊕ Shallow Monitor Well

−1,042− Potentiometric Surface (1-Foot Contour Intervals)

Well ID	TOC	DTW	Water Elevation
MW-1	1,067.66	22.30	1,045.36
MW-2	1,068.42	26.84	1,041.58
MW-4	1,054.17	14.34	1,039.83
MW-5	1054.86*	11.05	1,043.81
MW-6	1,053.76	8.88	1,044.88

Notes:

Water levels collected 2/16/15
Elevations given in NAVD 88
TOC: Top of casing
DTW: Depth to water
GW: Groundwater
* MW-5 was abandoned before the TOC was surveyed. The well cover was surveyed, and TOC is estimated to be 6-inches below the cover.

CDM Smith

N

Scale in Feet

0 300 600

Potentiometric Surface

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

Scale in Feet

0 60 120

Property Lines Proposed Sewer

Figure 2-1: Monitoring Well Locations

Corrective Action Plan

Fire Station 19

(HSI #10844)

Duluth, Gwinnett County, Georgia

ACL

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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

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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

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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

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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

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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	

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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
Address: 3715 Northside Parkway NW B. 300 S. 4100 Atlanta, GA 30327	Site Location: Duluth, GA
Project Manager: Andrew Romanek romanekAD@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 Feller

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 Handling: ACL Contract ____ Quote # ____ P.O. ____
Special Reporting Requirements: Fax ☐	Lab Use Only: ACL Project #: 66972	Cooler Temp.: 4 °C	QA/QC Level: Level 1 ☒ Level 2 ☐ Other ☐ ____

CUSTODY RECORD

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

APPENDIX D

SOIL MANAGEMENT PLAN

SOIL MANAGEMENT PLAN

DIAMOND CRYSTAL DULUTH, LLC
DULUTH, GEORGIA
HSI SITE NO. 10844

DECEMBER 2015

PREPARED FOR:

DIAMOND CRYSTAL DULUTH, LLC
3245 N. BERKELEY LAKE ROAD
DULUTH, GA, 30096-4972

Matthew S. Mudge
Project Manager

William H. Husk, CHMM
Principal

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1.0 INTRODUCTION

1.1 Site Description

The subject site is located at 3245 North Berkeley Lake Road, Duluth, Gwinnett County, Georgia (**Figure 1**). The property contains approximately 4.72 acres of land and is developed with a commercial/industrial building containing approximately 83,260 square feet of interior area. Diamond Crystal Duluth, LLC (Diamond Crystal Duluth) operates a manufacturing and distribution facility at the site.

The property was initially developed for use as a warehousing and distribution center in 1969. Prior to 1969, the land was reported to have been developed for agricultural use.

1.2 Background

In a letter dated October 28, 2013 from the Georgia Department of Natural Resources Environmental Protection Division (EPD), Diamond Crystal Duluth was advised that its site was subject to notification requirements under the Georgia Hazardous Site Response Act (HSRA). Further, the EPD has incorporated the Diamond Crystal Duluth parcel into its Hazardous Site Inventory (HSI) Site No. 10844 (a multi-party listing).

HSI Site No. 10844 was initially identified in 2006 on property identified as the "Gwinnett Regional Distribution Center" located across North Berkeley Lake Road from the Diamond Crystal Duluth property. Preliminary results indicated that concentrations of arsenic in excess of the HSRA Notification Concentrations (NC) were detected in both soil and groundwater samples collected from the Gwinnett Regional Distribution Center property. Subsequent testing demonstrated that arsenic detected in groundwater was due to improper techniques used to collect samples. Additional testing on three adjacent parcels (Gwinnett County Fire Department, Suzanna's Kitchen, Inc., and Greater Atlanta Montessori School) has also detected concentrations of arsenic in excess of the NC for soil. At this time, arsenic in soil is the only contaminant known to occur at HSI Site No. 10844.

Diamond Crystal Duluth is currently enrolled in the EPD's Voluntary Investigation and Remediation Program (VIRP, or VRP) which will, upon

conclusion of the program, effectively remove (or delist) the Diamond Crystal Duluth property from the Hazardous Site Inventory.

As part of the VRP, Diamond Crystal Duluth indicated a Corrective Action Plan (CAP) would be developed for the site. Further, Diamond Crystal Duluth indicated the CAP may include a combination of engineering controls, institutional controls and administrative controls. This Soil Management Plan (SMP) has been developed as an institutional control for management of site soils during ground disturbing activities conducted at the site.

1.3 Purpose

This SMP has been prepared for use by Diamond Crystal Duluth and its contractors performing ground disturbance activities at the site. The purpose of the SMP is to provide instruction in the process of soil management, soil sampling and characterization, and removal and disposal procedures.

2.0 ENVIRONMENTAL CONDITIONS

2.1 Nature/Extent of Affected Soil

Arsenic has been detected in excess of the NC (41 mg/kg) for soils on the tracts identified in HSI Site No. 10844. Further, arsenic has been detected in samples collected at the ground surface and at depths up to 15 feet below ground surface.

Investigations conducted in HSI Site No. 10844 have shown elevated concentrations of arsenic have been detected in soil over a relatively large area (roughly 70 acres) with no apparent pattern to the distribution of concentrations.

After arsenic was detected in soils on an adjacent property at levels above the NC of 41 mg/kg, Diamond Crystal Duluth conducted a soil investigation on the subject Property in November 2013. Arsenic concentrations in the soil samples collected during the 2013 investigation ranged from 12.3 mg/kg to 221 mg/kg in surface samples and from 8.45 mg/kg to 271 mg/kg in subsurface samples. A summary of soil sample analytical results and a map showing soil sample locations from 2013 are included in **Appendix A**.

As part of the VRP application, a conceptual site model (CSM) was developed for HSI Site No. 10844. The CSM assumes that the distribution of elevated concentrations of arsenic in soil is random in all three dimensions. **Appendix B** contains a copy of the Site Conceptual Exposure Model, which illustrates the potential exposure pathways for arsenic at the site.

2.2 Potential Sources of Affected Soil

No apparent source for the arsenic has been identified. No environmental releases or industrial or manufacturing operations have been reported to have occurred at the site. Responses under the HSRA include speculation that arsenic contamination is associated with imported fill dirt; however, there has been no substantiation of this possibility. Further, published data from a nearby site documents elevated concentrations of naturally occurring arsenic in soils and underlying bedrock (Schroeder, 2010).

3.0 CLEANUP STANDARDS

3.1 Commercial/Industrial

Preliminary cleanup standards have been developed for the site by evaluating potential exposures associated with site contamination. In developing the cleanup standards, potential exposures for commercial/industrial workers and construction workers were considered given the possibility for future site development.

To develop the cleanup standards, risk reduction standards (RRS) were calculated. In accordance with EPD guidance, Type 4 RRS were used. The Type 4 RRS for arsenic in the surface soil (0-2 feet below ground surface-BGS) is 38 mg/kg. The Type 4 RRS for arsenic in subsurface soil (>2 feet BGS) is 41 mg/kg. These values have been proposed as the preliminary cleanup standards for the site. As the site progresses through the VRP process, these cleanup standards may change based on new information.

4.0 EXCAVATION PROCEDURE

4.1 Excavation and Stockpiling Plan

Based on available information, it is assumed that soils present on the property may contain arsenic concentrations above the Type 4 RRS. All excavation activities shall be conducted in accordance with the guidelines provided in this SMP. All excavated soil should be placed in a segregated stockpile until it is reused or removed from the site.

In stockpiling potentially contaminated soils, Diamond Crystal Duluth will take measures to prevent contaminant migration. Soils will be placed on plastic sheeting and covered with plastic sheeting when the stockpile is not in use. The measures will follow Storm Water Pollution Prevention Plan (SWPPP) requirements. To produce an effectively segregated stockpile, the area where the stockpile will be placed should be cleaned of any large stones, roots, or other debris. Stockpile placement should be carefully considered to avoid hindering site activities, and to maintain control of the stockpile.

Plastic sheeting with a minimum thickness of 10 mil will be used as the base of the stockpile. A low berm (0.5 – 1.0 feet high) composed of clean soil or other material should be placed around the perimeter of the stockpile area. The base layer plastic sheeting will cover the berms and will be anchored against the exterior berm wall using sand bags or other materials. Plastic sheeting with a minimum thickness of six mil will be used to cover the stockpile. This will prevent rainwater runoff from flooding the stockpile area as well as preventing migration of stockpiled materials. The plastic sheeting will also divert rainfall away from the stockpile.

4.1.1 Stockpile Access

A single access point will be built into the protective berm allowing for deposition or removal of soils. Soil placement will begin at the furthest point within the stockpile area and progress back toward the entrance.

4.2 Soil Sample Collection and Analysis

4.2.1 Soil Sample Collection

Stockpiled soils intended for off-site disposal shall be sampled at a rate of one composite sample per 100 cubic yards. Grab samples will be collected

from multiple locations within the 100 cubic yard volume and homogenized/composited in order to collect a sample that is representative of the stockpiled material.

4.2.2 Soil Sample Analysis

The soil samples will be collected in clean, appropriate sample bottleware and transported to the laboratory under proper chain-of custody documentation. Soil samples collected for characterization will be analyzed in a certified laboratory for arsenic using US EPA SW 846 Method 6010C.

4.3 Soil Disposal Procedures

Soil or excavated materials that are not reused on-site may require off-site disposal. Materials that must be disposed will be transported to a facility approved to accept the material. Procedures to be followed will be based on soil sample analysis results. If the soil sample results show arsenic at concentrations less than 38 mg/kg, the soil may be disposed as clean fill material. If arsenic concentrations exceed 38 mg/kg, the soil must be disposed at an approved facility.

The Contractor will be responsible for obtaining approval to dispose of the soils at the chosen facility prior to removal of the material from the site.

Diamond Crystal Duluth or the Contractor will be responsible for transporting the material to the disposal facility and for ensuring that a manifest that identifies the origin, amount, and destination of the material accompanies all waste shipments. All trucks/roll-offs used to transport impacted soils will be equipped with waterproof tarpaulins for covering.

The Richland Creek Landfill located at 5691 South Richland Creek Road in Buford, Georgia is a Subtitle D Landfill and has been used in the past as a disposal facility for this type of material. Directions and a map to the Richland Creek Landfill are included in **Appendix C**.

4.4 Schedule Considerations

The following considerations should be noted for scheduling sampling of stockpiles or other materials:

- Standard laboratory turnaround times are typically 7-10 business days following receipt of the sample(s) unless an expedited turnaround is requested. If expedited results are requested, sample analyses may be completed in 2-3 business days. Note, however, that the laboratory must be provided with at least 24-hour prior notice and, in those cases, a "rush" surcharge (typically 2x the standard charge) will be applied to all samples.
- The disposal facility for materials generated on-site will typically require 2-4 business days to review and process a complete waste profile.

5.0 WORKER HEALTH AND SAFETY

Human occupants of the site are the primary potential receptors of exposures to elevated concentrations of arsenic in site soils. Diamond Crystal Duluth employees spend the vast majority of their time on site inside the building. In general, service personnel, including delivery and shipping truck drivers, landscape maintenance personnel, and construction workers spend limited and sometimes episodic amounts of time on the site outside the building.

Approximately 41% of the Diamond Crystal Duluth site is occupied by a building constructed on a concrete slab that is used for manufacturing and warehousing operations. An estimated 25 percent of the area outside the building is paved for parking and access drives. Arsenic is not volatile, therefore, no exposure pathway exists for soils beneath the building or pavement unless the pavement is breached for subsurface construction work.

The Site Conceptual Exposure Model illustrates the potential exposure pathways for arsenic at the site (included as **Appendix B**). Information regarding the health hazards associated with arsenic is included in **Appendix D**.

The majority of the unpaved areas outside the building are stabilized with grass, forest vegetation, or mulch. Limited human activity in these areas includes:

- Walking to and from parked vehicles;
- Short work breaks;
- Mowing or other landscaping work; and
- Construction.

Humans might be exposed to arsenic in windblown dust, exposed soil, or mud from the unpaved areas outside the building. Inhalation, ingestion and dermal contact are the primary potential exposure pathways. Activities such as subsurface construction and landscaping would place individuals at the highest risk of limited inhalation, ingestion or dermal contact exposure to soils that contain elevated concentrations of arsenic.

Diamond Crystal Duluth will provide training to its site personnel regarding the hazards associated with site soils. If Diamond Crystal Duluth personnel will be involved with or conducting soil disturbing activities at the site, they shall be

familiar with this SMP and a hazard assessment will be conducted and appropriate measures will be implemented to protect Diamond Crystal Duluth personnel.

If a Contractor is retained to conduct soil disturbing activities at the site, the health and safety of contractor personnel will be the responsibility of the Contractor. The Contractor shall be provided a copy of this SMP and follow the procedures identified. The Contractor shall also be responsible for the development of a site-specific Health and Safety Plan (HASP) for projects involving excavation or soil disturbing activities, and for compliance with required health and safety procedures for the work performed.

The primary physical hazards associated with land-disturbing activities are anticipated to be:

- buried underground utilities;
- open excavations; and
- heavy equipment.

Known chemical hazards at the site include arsenic concentrations in excess of the Type 4 RRS. Soil chemical data must be provided to the Contractor upon request for inclusion in the Contractor's HASP. Additional hazards may arise if excavation activities encounter significantly contaminated media, unknown tanks or buried containers, or other unknown structures. The Contractor's HASP should address these potential hazards, in addition to construction-related hazards.

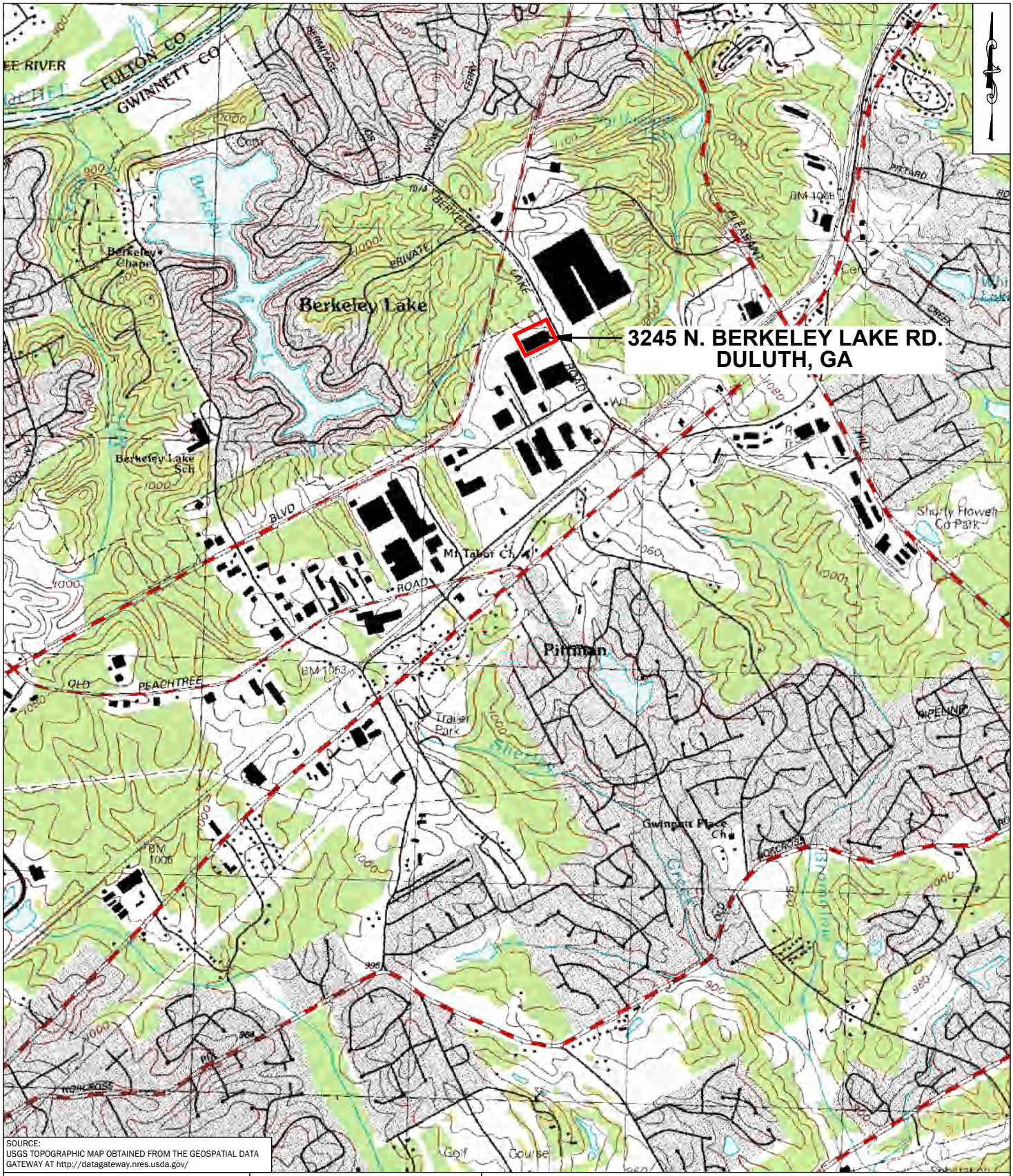
6.0 FIELD DOCUMENTATION AND REPORTING

During site grading and excavation activities, the Contractor shall maintain records regarding soil removal and placement activities, as well as soil testing and disposal information. Pertinent data will vary based on the site conditions; however, the following data should be recorded: date, project name and number, soil sampling location, sample depth, sample identification, and sample description, along with any screening results and general observations. Photographs and descriptions of excavation areas and fill areas should also be recorded.

Copies of any disposal manifests designating the quantity of materials received by the approved landfill should be retained on file.

This information shall be provided to Diamond Crystal Duluth on a routine (*e.g.*, weekly basis) until the construction activities are completed.

Figures



SOURCE:
USGS TOPOGRAPHIC MAP OBTAINED FROM THE GEOSPATIAL DATA GATEWAY AT http://datagateway.nres.usda.gov/

synTerra
148 RIVER STREET, SUITE 220
GREENVILLE, SOUTH CAROLINA
PHONE 864-421-9999
www.synterracorp.com

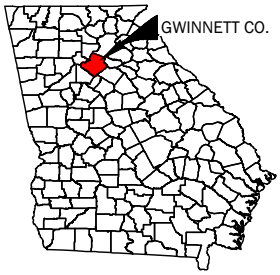


FIGURE 1
SITE LOCATION MAP
DIAMOND CRYSTAL DULUTH
3245 NORTH BERKELEY LAKE ROAD
DULUTH, GEORGIA
NORCROSS, GA QUADRANGLE

DRAWN BY: C. NEWELL
PROJECT MANAGER: M. MUDGE
LAYOUT: FIGURE 1-USGS
DATE: 11/25/2015
CONTOUR INTERVAL: 20 FT.
MAP DATE: 1992

GRAPHIC SCALE
1000 0 1000 2000
IN FEET

P:\Hormel .918\05.Diamond Crystal Brands\01.Hazardous Site Kickoff\Drawings\9180501-FIGURES.dwg

PARCEL 6267-028
GWINNETT COUNTY

N 59°05'30"E 566.06'

ASPHALT

ASPHALT

ENTER

SLUDGE TANK

PRETREATMENT

PROPANE STORAGE

TRASH COMPACTOR

SHIPPING & RECEIVING

LIFT STATION

DIAMOND CRYSTAL BRANDS
DULUTH PLANT

1 STORY BRICK BUILDING
85,320 SQUARE FOOT
HEIGHT 25'

EMPLOYEE PARKING

ASPHALT

ENTER

NORTH BERKELEY ROAD, 100' R/W

S 30°18'48"E 365.97'

PARCEL 6267-031
SUZANNA'S KITCHEN

N 30°27'45"W 362.34'

ST

GRAVEL

METAL STORAGE

PARCEL 6267-050
DIAMOND CRYSTAL BRANDS

COMPRESSOR AREA

TRANSFORMER

ASPHALT

CONTAINMENT WALL

CONTAINMENT WALL

ENTER

ST

S 59°27'45"W 565.09'

PARCEL 6267-025
OSC NORCROSS LLC

PARCEL 6267-026
GWINNETT REGIONAL DISTRIBUTION CENTER

LEGEND

PARCEL 6267-028
GWINNETT COUNTY

GWINNETT COUNTY TAX PARCEL NUMBER
PROPERTY OWNER NAME

-Map is referenced to Georgia State Plane Coordinate System NAD83
-Tax Parcel Numbers and Property Owner Name downloaded from Gwinnett County GIS website
-SPCC Site Plan (Sheet No. N10101) furnished to SynTerra by Diamond Crystal Brands

GRAPHIC SCALE
25 0 25 50
IN FEET

148 RIVER STREET, SUITE 220
GREENVILLE, SOUTH CAROLINA 29601
PHONE 864-421-9999
www.synterracorp.com

DRAWN BY: J. COLEMAN
PROJECT MANAGER: M. MUDGE
LAYOUT: FIG 2 (SITE LAYOUT)
DATE: 12/09/2014

11/25/2015 10:37 AM P:\Hormel .918\05.Diamond Crystal Brands\03.VRP Application\Soil Management Plan\DIAMOND BRAND SOIL MANAGEMENT PLAN.dwg

FIGURE 2
SITE LAYOUT DIAGRAM
DIAMOND CRYSTAL BRANDS
3245 NORTH BERKELEY LAKE ROAD
DULUTH, GEORGIA

APPENDIX A

2013 Soil Assessment Information

0 20 40 80 120 160
Feet

Legend

GEOPROBE BORING

BOUNDARY

N

Title	**SITE PLAN**
Client:	Diamond Crystal Brands - Duluth 3245 North Berkeley Lade Road Duluth, Georiga 30096
EMA Environmental Management Association, LLC	Facility ID:
	Figure 1

TABLE 1

ANALYTICAL SOIL DATA SUMMARY
DIAMOND CRYSTAL BRANDS
DULUTH, GEORGIA

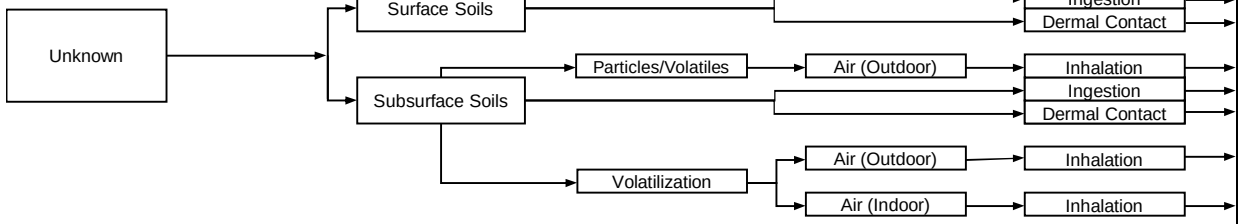
Sample Location	*Date*	*Depth (feet bgs)* [1]	*Arsenic (mg/kg)* [2]	*Lead (mg/kg)*	*Cadmium (mg/kg)*
GP-01	11/18/2013	1-2	**75.1**	20.9	BRL
	11/18/2013	4-5	24.4	BRL	BRL
GP-2	11/18/2013	1-2	**221**	31.4	BRL
	11/18/2013	4-5	**271**	9.98	BRL
GP-3	11/18/2013	1-2	32.6	39.4	BRL
	11/18/2013	4-5	8.45	65	BRL
GP-4	11/18/2013	1-2	**44.6**	13.4	BRL
	11/18/2013	4-5	**54.8**	19.3	BRL
GP-5	11/18/2013	1-2	**122**	56.9	BRL
	11/18/2013	4-5	**73.6**	57.3	BRL
GP-6	11/18/2013	1-2	**158**	45.3	BRL
	11/18/2013	4-5	**49.8**	47.7	BRL
GP-7	11/18/2013	1-2	**118**	29	BRL
	11/18/2013	4-5	**113**	28.4	BRL
GP-8	11/18/2013	1-2	12.3	15.8	BRL
	11/18/2013	4-5	28.9	11.7	BRL
Notification Concentration [3]		--	41	400	39
Type 4 RRS [4]		--	38 (surf.)/130 (subs.)	400	77

Notes:
Analytical method used for testing was SW-846 Method 6010C.
1) bgs - below ground surface
2) mg/kg - milligrams per kilogram
3) HSRA Notification Concentrations
4) EPD Type 4 Risk Reduction Standards

APPENDIX B

SITE CONCEPTUAL EXPOSURE MODEL

Site Conceptual Exposure Model
Diamond Crystal Brands
3245 North Berkeley Lake Road
Duluth, Georgia



	POTENTIAL RECEPTORS							
	Outdoor Worker		Indoor Worker		Construction Worker		Trespasser	
	Current	Future	Current	Future	Current	Future	Current	Future
Surface Soils – Particles/Volatiles – Air (Outdoor) – Inhalation	+	+	-	-	+	+	+	+
Surface Soils – Ingestion	+	+	-	-	+	+	+	+
Surface Soils – Dermal Contact	+	+	-	-	+	+	+	+
Subsurface Soils – Particles/Volatiles – Air (Outdoor) – Inhalation	+	+	-	-	+	+	+	+
Subsurface Soils – Ingestion	+	+	-	-	+	+	+	+
Subsurface Soils – Dermal Contact	+	+	-	-	+	+	+	+
Subsurface Soils – Volatilization – Air (Outdoor) – Inhalation	-	-	-	-	-	-	-	-
Subsurface Soils – Volatilization – Air (Indoor) – Inhalation	-	-	-	-	-	-	-	-

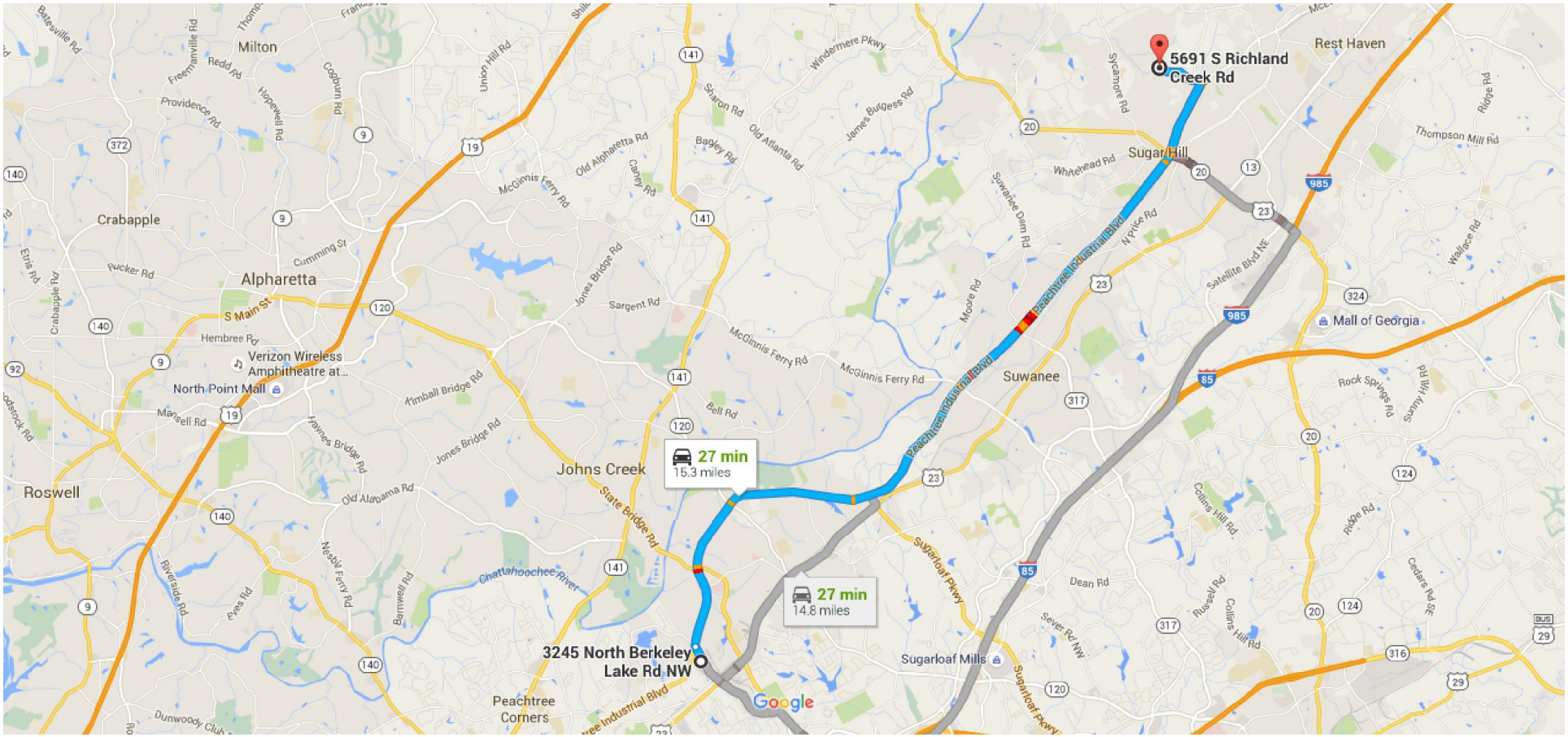
Notes:

+ This route is a primary source of exposure.
- There is no exposure by this route.

APPENDIX C

DIRECTIONS AND MAP TO LANDFILL

Google Maps 3245 North Berkeley Lake Rd NW to 5691 S Richland Creek Rd, Buford, GA 30518 Drive 15.3 miles, 27 min



3245 North Berkeley Lake Rd NW

Duluth, GA 30096

1. Head northwest on N Berkeley Lake Rd NW — 0.2 mi
2. Turn right onto Peachtree Industrial Blvd — 14.3 mi
3. Turn left onto Little Mill Rd — 0.1 mi
4. Turn left onto S Richland Creek Rd — 0.7 mi

   Destination will be on the right

5691 S Richland Creek Rd

Buford, GA 30518

Richland Creek Landfill

5691 South Richland Creek Road

Buford, GA 30518,

Directions to the Richland Creek Landfill from DIAMOND CRYSTAL DULUTH:

- Take US-23 S to access Sugarloaf Parkway.
- Take Peachtree Industrial Boulevard to Little Mill Road
- Turn left onto South Richland Creek Road
- Take South Richland Creek Road until arriving at the Richland Creek Landfill.

APPENDIX D

HEALTH & SAFETY INFORMATION - ARSENIC

Arsenic (organic compounds, as As)

Synonyms & Trade Names Synonyms vary depending upon the specific organic arsenic compound.

CAS No.	RTECS No.	DOT ID & Guide
	Conversion	IDLH N.D. See: IDLH INDEX (/niosh/idlh/intridl4.html)

Exposure Limits NIOSH REL : none
OSHA PEL : TWA 0.5 mg/m3

Measurement Methods
NIOSH 5022 (/niosh/docs/2003-154/pdfs/5022.pdf)
See: NMAM (/niosh/docs/2003-154/) or OSHA Methods (http://www.osha.gov/dts/sltc/methods/index.html) (http://www.cdc.gov/Other/disclaimer.html)

Physical Description Appearance and odor vary depending upon the specific organic arsenic compound.

Properties vary depending upon the specific organic arsenic compound.					

Incompatibilities & Reactivities Varies

Exposure Routes inhalation, ingestion, skin and/or eye contact

Symptoms In animals: irritation skin, possible dermatitis; resp distress; diarrhea; kidney damage; muscle tremor, convulsions; possible gastrointestinal tract, reproductive effects; possible liver damage

Target Organs Skin, respiratory system, kidneys, central nervous system, liver, gastrointestinal tract, reproductive system

Personal Protection/Sanitation	First Aid
(See protection codes (protect.html)) Recommendations regarding personal protective clothing vary depending upon the specific compound.	(See procedures (firstaid.html)) **Eye:** Irrigate immediately **Skin:** Soap wash immediately **Breathing:** Respiratory support **Swallow:** Medical attention immediately

Recommendations regarding eye protection vary depending upon the specific compound. Recommendations regarding washing the skin vary depending upon the specific compound. Recommendations regarding the removal of personal protective clothing that becomes wet or contaminated vary depending upon the specific compound. Recommendations regarding the daily changing of personal protective clothing vary depending upon the specific compound. Recommendations regarding the need for eyewash or quick drench facilities vary depending upon the specific compound.	

Respirator Recommendations

Not available.

Important additional information about respirator selection (pgintrod.html#mustread)

See also: INTRODUCTION (/niosh/npg/pgintrod.html)

Page last reviewed: April 4, 2011
Page last updated: February 13, 2015
Content source: National Institute for Occupational Safety and Health (NIOSH) Education and Information Division

Centers for Disease Control and Prevention 1600 Clifton Road Atlanta, GA 30329-4027, USA
800-CDC-INFO (800-232-4636) TTY: (888) 232-6348 - Contact CDC–INFO

APPENDIX E

PRELIMINARY PAVING AND SITE CONTROLS PLAN

PARCEL 6267-028
GWINNETT COUNTY

Landscape area capped with gravel (provides additional parking)

N 59°05'30"E 566.06'

ASPHALT

ASPHALT

ENTER

SLUDGE TANK

PRETREATMENT

PROPANE STORAGE

TRASH COMPACTOR

SHIPPING & RECEIVING

LIFT STATION

Landscape area capped with asphalt (provides additional parking)

DIAMOND CRYSTAL BRANDS
DULUTH PLANT

1 STORY BRICK BUILDING
85,320 SQUARE FOOT
HEIGHT 25'

PARCEL 6267-050
DIAMOND CRYSTAL BRANDS

GRAVEL

METAL STORAGE

COMPRESSOR AREA

TRANSFORMER

ASPHALT

CONTAINMENT WALL

CONTAINMENT WALL

ENTER

EMPLOYEE PARKING

ASPHALT

S 30°18'48"E 365.97'

N 30°27'45"W 362.34'

S 59°27'45"W 565.09'

PARCEL 6267-025
OSC NORCROSS LLC

NORTH BERKELEY ROAD, 100' R/W

PARCEL 6267-031
SUZANNA'S KITCHEN

PARCEL 6267-026
GWINNETT REGIONAL DISTRIBUTION CENTER

LEGEND

PARCEL 6267-028
GWINNETT COUNTY

GWINNETT COUNTY TAX PARCEL NUMBER
PROPERTY OWNER NAME

AREA BEING CONSIDERED FOR ADDITIONAL PAVING OR CAPPING

-Map is referenced to Georgia State Plane Coordinate System NAD83
-Tax Parcel Numbers and Property Owner Name downloaded from Gwinnett County GIS website
-SPCC Site Plan (Sheet No. N10101) furnished to SynTerra by Diamond Crystal Brands

GRAPHIC SCALE
25 0 25 50
IN FEET

148 RIVER STREET, SUITE 220
GREENVILLE, SOUTH CAROLINA 29601
PHONE 864-421-9999
www.synterracorp.com

DRAWN BY: J. COLEMAN DATE: 12/09/2014
PROJECT MANAGER: M. MUDGE
LAYOUT: FIG 2 (SITE LAYOUT)

11/25/2015 10:37 AM P:\Hormel .918\05.Diamond Crystal Brands\03.VRP Application\Soil Management Plan\DIAMOND BRAND SOIL MANAGEMENT PLAN.dwg

FIGURE 1
SITE PAVING AND CONTROLS PLAN
DIAMOND CRYSTAL DULUTH
3245 NORTH BERKELY LAKE ROAD
DULUTH, GEORGIA