# **Limited Subsurface Investigation**

Sterling – Commerce Street

1432 – 1434 E. Commerce Street

&

323 Idaho Street

San Antonio, Texas 78205

# **Prepared for:**

Jasmine Engineering, Inc. 115 East Travis, Suite 1020 San Antonio, Texas 78205

# Prepared by:

Drash Consultants, LLC
San Antonio, Texas
January 5, 2017
Drash Project No. 116E1164.00





Limited Subsurface Investigation

1432 - 1434 East Commerce Street

Sterling – Commerce Street

San Antonio, Texas 78205

& 323 Idaho Street

SUBJECT:

Ms. Jasmine Azima Jasmine Engineering, Inc. 115 East Travis, Suite 1020 San Antonio, Texas 78205

T: 210.227.4788

E: JAzima@jasmineengineering.com

Drash Project No.: 116E1164.00

Dear Ms. Azima:

Drash Consultants, LLC (Drash) is presenting the results from the Limited Subsurface Investigation (LSI) performed for the above referenced project. This report is intended for the sole use and benefit of Jasmine Engineering, Inc. and may not be relied upon by any other part without express permission of Drash Consultants, LLC.

#### **BACKGROUND**

#### Introduction

Drash conducted an investigation to assess potential impacts to subsurface media at the Sterling - Commerce Street property located at 1432 - 1434 East Commerce Street and 323 Idaho Street in San Antonio, Bexar County, Texas (Site). A Site Vicinity Map is provided in Appendix A. This report documents the results of the investigation conducted on December 16, 2016 in accordance with the agreement governing the nature and extent of the LSI. Conditions may exist which could not be identified as a result of this LSI.

#### **Purpose**

This LSI was intended to evaluate soil and perched groundwater (if present) conditions for possible impacts from chemicals of concern (COCs). Drash evaluated the Site in order to determine the related likelihood of a significant release of COCs due to current and/or historic activities at the Site and/or the Site vicinity as identified in a prior Phase I Environmental Site Assessment (ESA) dated February 7, 2013 issued by Pape-Dawson Engineers, Inc. (Pape-Dawson) as well as observations documented during a Forensic Building Study (FBS) dated March 10, 2014 issued by Raba Kistner Consultants, Inc. (Raba Kistner).

The following is a synopsis of the findings and observations indicated in the documents reviewed:

The prior Phase I ESA identified the Midway Cleaners and Model Dyers and Cleaners facilities as Recognized Environmental Conditions (RECs) and possible sources of



Stoddard and chlorinated solvents which, due to the facilities location and distance relative to the Site, may have adversely impacted the soils and/or groundwater within the Site boundary. Additionally, the Phase I ESA identified the San Antonio Fire Station #3, Imperial Loan and Jewelry Company, Commerce Quick Stop, Manuel Paint & Body Shop, and West's Auto Repair Shop/HW Kreger Repair as RECs and possible petroleum hydrocarbon sources of potential impact to Site soils and groundwater (Pape-Dawson, 2013).

 During performance of the FBS four soil borings were installed in and adjacent to the 1432 E. Commerce Street structure to assess the soil properties. Two of the soil boring logs (B-2 and B-3) indicate possible hydrocarbon odors from approximately 5 ½ feet to 7 feet below the floor slab (Raba Kistner, 2014).

Based on review of the above referenced documents, Drash recommended a limited subsurface investigation to determine what impacts, if any, current and former Site activities and/or activities in the Site vicinity had on the soil and/or groundwater at the Site. The LSI is not intended to identify additional areas of concern, evaluate the potential for release of other COCs, to identify the full lateral and vertical extent of release, determine appropriate cleanup actions, or develop a detailed estimate of costs to correct concerns identified.

In addition, this LSI does not, nor is intended to meet the requirements of ASTM E1903-11, "Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process".

#### **Health and Safety Plan**

Drash developed a Health and Safety Plan that was specific to the property. The development of this plan is required by the Occupational Safety and Health Administration (OSHA) under Hazardous Waste Operations & Emergency Response 29 CFR 1910.120. The site Health and Safety Plan was designed to reduce the risk of physical or chemical exposures that may affect on-site workers in the proposed work area. The site Health and Safety Plan includes information about chemicals expected on the property, health and safety procedures for working on-site, and emergency response procedures. The Health and Safety Plan is on file at Drash's office.

#### **Utility Locating**

A utility inspection was performed at the Site at least 48 hours prior to the initiation of the subsurface investigation at the request of the subcontract driller, as required by Texas State law. This inspection consisted of the marking the underground utility locations by authorized utility locating personnel.

#### **Permits**

The City of San Antonio and Bexar County did not require drilling permits for borings or temporary monitoring wells.

#### SUBSURFACE INVESTIGATION



#### **Soil Sampling**

Soil samples from six on-site soil borings were collected continuously utilizing two-foot split barrel samplers or two to five-foot stainless steel macro core samplers equipped with dedicated disposable acetate sampling sleeves. A Site Boring Location Plan is provided in Appendix A. All soil samples were field screened using a photo-ionization detector (PID) calibrated to 100 parts per million (ppm) isobutylene. The following table summarizes the soil boring depths and locations.

Soil Boring	Total Depth (Feet)	Location
B-1	8.0	Interior soil boring located within the northwest central portion of the 1434 E. Commerce Street structure.
B-2	10.0	Interior soil boring located within the far north-eastern portion of the 1432 E. Commerce Street structure.
B-3	15.0	Exterior soil boring located east adjacent to the 1432 E. Commerce Street structure.
B-4	10.0	Exterior soil boring located north-northeast adjacent to the 323 Idaho Street former residential structure.
B-5	15.0	Exterior soil boring located south adjacent to the 1434 E. Commerce Street structure.
B-6	15.0	Exterior soil boring located on the southwest portion of the Site near Idaho Street.

Please note that soil borings B-1 and B-2 were terminated due to the limitations of the equipment utilized to obtain samples given the relatively confined operating spaces and the lithology encountered in the subsurface.

Soils encountered at the Site generally consisted of the following:

- Alternating silty clay and clay material with minor gravel and silt from the surface down approximately 5.5 feet to 8 feet.
- Mixed clast and chert gravelly clays and clayey gravels with some silt from approximately
   5.5 to 8 feet below ground surface (bgs) to approximately 10 to 12.5 feet bgs.
- High plasticity (fat) and relatively firm clays below 10 to 12.5 feet bgs.

Soil samples were continuously collected from each boring. After collection, selected samples were placed in laboratory supplied containers appropriate for the media being sampled and the specified analyses based on field screening results, depth and lithology, and/or visual evidence of impact. Immediately after collection, the samples were labeled and stored on ice in a cooler. The samples were delivered to the analytical laboratory, Alamo Analytical Laboratories, Ltd. in San Antonio, Texas.



#### **Groundwater Sampling**

Although the lithology encountered at the Site did not suggest the presence of perched groundwater, a one-inch temporary well was installed in boring B-3 and remained in place during the LSI activities. No perched groundwater was detected in the temporary monitoring well or any of the soil borings installed at the Site. The temporary well was constructed of one-inch diameter, schedule 40 poly-vinyl chloride (PVC) well screen and riser pipe, and was abandoned in accordance with Texas regulations (TAC, Title 16, Chapter 76.104) upon completion of field activities.

#### LABORATORY ANALYTICAL RESULTS

#### **Laboratory Analytical Methods**

The soil samples were transported under chain of custody to Alamo Analytical Laboratories, Ltd., a laboratory certified by the Texas Commission on Environmental Quality (TCEQ) and accredited by the National Environmental Laboratory Accreditation Conference (NELAC). Select soil samples were analyzed for total petroleum hydrocarbons (TPH) via TCEQ method TX 1005, Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), Methyl tertiary-butyl ether (MTBE) and volatile organic compounds (VOCs) via EPA method 8260B (collected via EPA method 5035A), and Resource Conservation and Recovery Act (RCRA) 8 Metals via EPA methods 6010B and 7471A.

#### **Summary of Data**

The TCEQ has developed the TRRP for regulating the cleanup and management of hazardous wastes and COCs which have been released into the environment at affected properties, from regulated facilities, as well as closures of certain waste management facility components (e.g., tanks, container storage areas, surface impoundments). TRRP establishes requirements to investigate releases and evaluate whether an affected property or facility closure poses an unacceptable risk to humans, air, groundwater, surface soils, subsurface soils and/or aquatic environments.

The TRRP rule establishes a tiered approached for the development of action levels referred to as Tier 1, 2, or 3 PCLs. The default values are the Tier 1 PCLs, which are normally the most stringent (lowest) action levels. Drash reviewed the soil data against the Tier 1 Residential Levels for <sup>GW</sup>Soil<sub>Ing</sub> and <sup>Total</sup>Soil<sub>Comb</sub> PCLs. Regarding metals in soil, the PCL is the lower of the Tier 1 Residential Levels or the Texas-Specific Soil Background (TSB) concentrations, whichever is higher. In many cases, the PCL for metals in soil are some combination of the TRRP Tier 1 Residential Levels and the TSBs in the absence of site-specific background concentrations.

Based on Drash's review of the analytical results, only one specimen exceeded the TRRP Tier 1 Residential PCLs. Soil sample B-6 (12.5 – 15') returned a slightly elevated result for Lead of 15.8 milligrams per kilogram (mg/kg) which exceeds the Tier 1 Residential PCL (TSB) of 15.0 mg/kg.



However, the TSBs represent median background concentrations for the entire state of Texas, and it is Drash's opinion that the presence of Lead is from naturally occurring sources.

However, the hydrocarbons evidenced at this Site are  $\underline{not}$  from naturally occurring sources. Hydrocarbon impacts were observed in soil borings B-2 (5 - 7') and B-3 (7.5 - 8.5'). While it is evident that the site has been impacted, the analytical results are below the TRRP Tier 1 Residential PCLs. This is most likely due to natural attenuation over time. It is more likely than not that the hydrocarbon impacts originated from off Site sources.

#### **CONCLUSIONS**

The following conclusions are based on the results of a LSI performed at the Sterling – Commerce Street property located at 1432 – 1434 E. Commerce Street and 323 Idaho Street in San Antonio, Bexar County, Texas. This investigation was intended to assess RECs identified in a Phase I ESA report completed by Pape-Dawson dated February 7, 2013 and observations made during a FBS conducted by Raba-Kistner in March 2014. The LSI was not intended to satisfy the level of inquiry that may be necessary to support remedial solutions or migration pathways related to a release from the RECs. For this reason, additional sampling may be required to provide sufficient data to support remedial solutions and provide closure of environmental pathways, if requested.

- According to Drash's review of the laboratory analytical results, only one specimen exceeded the TRRP Tier 1 Residential PCLs; soil sample B-6 (12.5 – 15'). This sample returned a slightly elevated result for Lead and it is Drash's opinion that this result is naturally occurring.
- The analytical results indicate that the constituents of concern are below the TRRP Tier 1
  Residential PCLs, which preclude any regulatory considerations. However, it is apparent
  that the Site has been impacted by hydrocarbons based on visual and olfactory evidence.
  Even though the hydrocarbon levels are low, which is most likely the result of attenuation
  over time, the hydrocarbon odors are significant.
  - It is more likely than not that these impacted soils will be encountered during earthwork construction at the Site for foundations and buried utilities. Normal disposition of these soils is not advised due to the hydrocarbon odors and the potential for encountering more impacted zones during construction. It is Drash's opinion that the impacted soils be removed from the site.
- These impacted soils can only be disposed at an approved landfill. This soil, before disposal, will have to be properly characterized (sampled). Based on characterization results various options may be available for disposal.

On the basis of Drash's review of the analytical data and the limitations governing this investigation, **Drash recommends no further environmental investigation or study is needed at this time.** 

Please note that no environmental assessment can absolutely preclude the presence of hazardous materials on a Site. Future changes in environmental conditions and Site



characteristics/usage may occur with the passage of time, in which case the conclusions in this report may require re-evaluation.

This report will assist the client and the client's legal counsel in evaluating and allocating the environmental risks that are always present with any real estate transaction or development. However, it is the responsibility of the client and the client's legal counsel to determine, based on the client's experience, whether additional information is required in order to meet the investigative burdens placed on real estate owners by state and federal agencies.

Thank you for selecting Drash to provide the environmental services for this phase of the project. We appreciate the opportunity to work with you, and we look forward to working with you on future projects. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

PAUL E. BECKÉTT

**GEOLOGY** 

6022

Respectfully Submitted,

Drash Consultants, LLC

Paul E. Beckett, P.G. Senior Project Geologist

PEB/TH/set - 116E1164.00

cc: Addressee: (1) Electronic File

Appendix A – General Site Information

Appendix B - Boring Logs

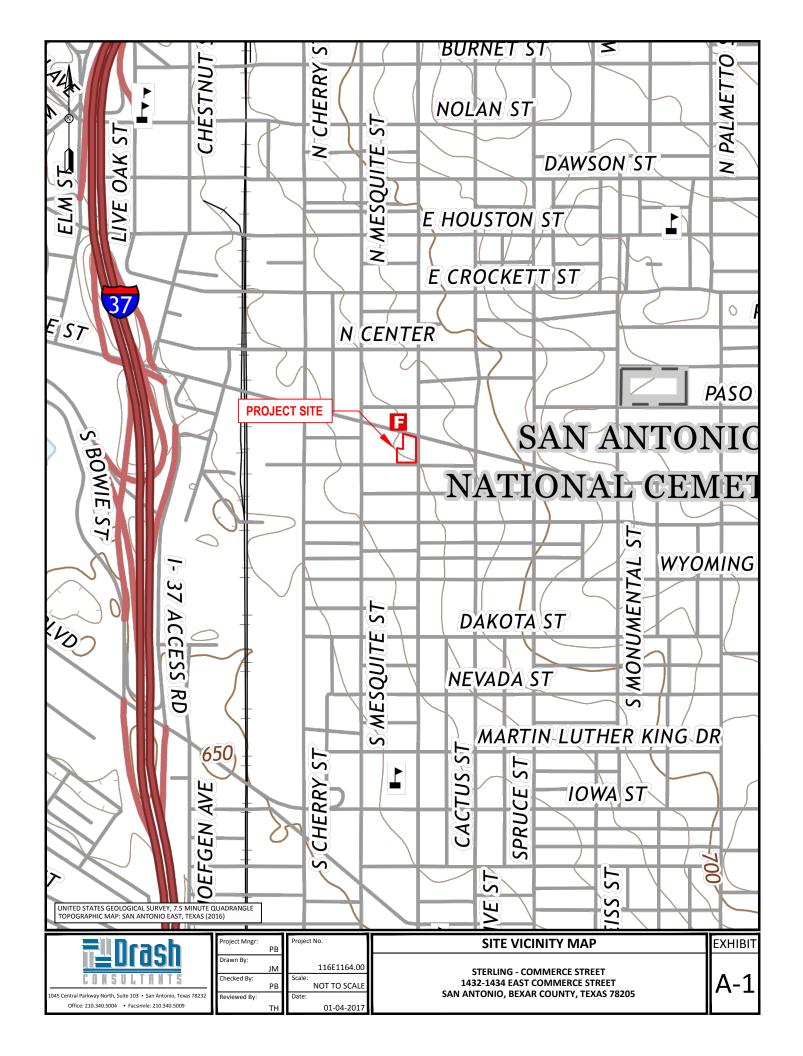
Appendix C - Laboratory Analytical Report

Tomas Hernandez, Jr., P.G. Environmental Services Group Department Manager



# APPENDIX A GENERAL SITE INFORMATION

Site Vicinity Map
Site Boring Location Plan





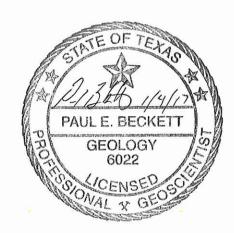
APPENDIX B
BORING LOGS



Drash Consultants, LLC 1045 Central Parkway North, Suite 103 San Antonio, Texas T: (210) 340-5004 F: (210) 340-5009

# BORING NUMBER B-1 PAGE 1 OF 1

CLIENT _Jasmine Engineering	PROJECT NAME Sterling - Commerce LSI
PROJECT NUMBER 116E1164	PROJECT LOCATION 1432-1434 E. Commerce Street, San Antonio, TX
DATE STARTED 12/16/17 COMPLETED 12/16/17	7 GROUND ELEVATION HOLE SIZE 3 inches
DRILLING CONTRACTOR Vortex	GROUND WATER LEVELS:
DRILLING METHOD Geoprobe	AT TIME OF DRILLING
LOGGED BY JM CHECKED BY PEB	AT END OF DRILLING
NOTES	AFTER DRILLING
DRILLING METHOD RECOVERY (%) SAMPLE ID SAMPLE ID DATA DATA LOG	MATERIAL DESCRIPTION WELL DIAGRAM
0.5	(CL-ML) 10YR 3/1 very dark gray silty clay; soft, dry.
PID = 16.4	(CH) 10YR 3/1 very dark gray high plasticity clay; medium stiff and dry grading to soft and moist with trace silt.
2.5 P PROBE 75 PID = 14	
5.0 PROBE 100 PID = 10.7	- Transitions to 10YR 5/2 grayish-brown; soft and moist.  (GC) 10YR 5/2 grayish-brown clayey gravel with
P PROBE 100 B-1 (6-8') PID = 14	abuńdant chert; moist, increasing clay with depth. Larger gravels, less clay and very moist at 8 feet.
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Bottom of borehole at 8.0 feet.





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# BORING NUMBER B-2 PAGE 1 OF 1

CLIENT Jasmine Engineering		PROJECT NAME Sterling - Commerce	e I SI
		PROJECT LOCATION _1432-1434 E. (	
		GROUND ELEVATION	
	ех		
	CHECKED BY PEB		
	Oneoked by Teb		
		74 TEN DIVIENTO	
DRILLING METHOD RECOVERY (%)	ENVIRONMENTAL DATA GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
P PROBE 17		oncrete slab CH) 10YR 3/1 very dark gray high plasticity clay; oft and slightly moist with trace gravel	
2.5 PROBE 17	PID = 45		
5.0 PROBE 100 B-2 (4-6')	m m	Transitions to 10YR 5/1 gray; soft and slightly oist, slight hydrocarbon odor, trace calcareous dules.	
7.5 PROBE 300	Ca	Transitions to 2.5Y 5/3 light olive brown; trace alcareous deposits and small gravels, stronger ydrocarbon odor from 7 to 8'.	
PROBE 100 B-2 (8-10')	PID = 451.7	GC) 2.5Y 5/3 light olive brown cherty gravel and	
PAUL E. E.	BECKETT LOGY	ayey gravel; moist, strong hydrocarbon odor.  Bottom of borehole at 10.0 feet.	

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# BORING NUMBER B-3 PAGE 1 OF 1

CONSULTANTS T: (210) 340	5004 F: (210) 340-5009
CLIENT _Jasmine Engineering	PROJECT NAME Sterling - Commerce LSI
PROJECT NUMBER 116E1164	PROJECT LOCATION 1432-1434 E. Commerce Street, San Antonio, TX
DATE STARTED 12/16/17 COM	PLETED 12/16/17 GROUND ELEVATION HOLE SIZE 3 inches
DRILLING CONTRACTOR Vortex	GROUND WATER LEVELS:
DRILLING METHOD Geoprobe	AT TIME OF DRILLING
LOGGED BY JM CHE	
NOTES	AFTER DRILLING
DRILLING METHOD RECOVERY (%) SAMPLE ID SAMPLE ID ENVIRONMENTAL DATA	MATERIAL DESCRIPTION WELL DIAGRAM Casing Type: 1" Sch 40 PVC
PID = 14	(CH) 10YR 3/1 very dark gray high plasticity clay; soft and slightly moist, trace calcareous nodules and root hairs.  Concrete seal
PID = 3:  PID = 3:  PID = 19	- Transitions to 2.5Y 5/3 light olive brown; trace silt.
PROBE 100 (7.5-10') PID = 59	- Black/weathered hydrocarbon impacted soil layer from 7.5 to 8'.  (GC) 2.5Y 5/3 light olive brown clayey gravel (chert); dry, strong hydrocarbon odor.
PID = 50	.9 12.5  (CH) 2.5Y 6/4 light yellowish-brown; medium stiff and slightly moist, calcareous deposits and trace silt pockets.  1" Sch 40 PVC 0.010 Slotted Screen
- STATE OF TEXTS	
PAUL E. BECKETT GEOLOGY 6022 CENSED SOUR	



Drash Consultants, LLC 1045 Central Parkway North, Suite 103 San Antonio, Texas

# BORING NUMBER B-4 PAGE 1 OF 1

CONSULTANTS T: (210	0) 340-5004 F: (210) 340-5009		
CLIENT Jasmine Engineering		PROJECT NAME Sterling - Commerce LS	1
		PROJECT LOCATION 1432-1434 E. Com	
		GROUND ELEVATION H	
DRILLING CONTRACTOR Vortex			
DRILLING METHOD Geoprobe			
LOGGED BY JM			
NOTES		AFTER DRILLING	
O DEPTH (ft) DRILLING METHOD RECOVERY (%) SAMPLE ID	ENVIRONMENTAL DATA GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
	1.0 fill materi	10000	
PID	0 = 55.6 (CH) 10Y soft and s	'R 3/1 very dark gray high plasticity clay; slightly moist.	
PID	) = 31.3		
PID	e = 58.6 - Transiti and slight	ions to 10YR 6/4 light yellowish-brown; soft tly moist	
PID	8.5 (GC) 2.5 moist with	Y 5/3 light olive brown clayey gravel (chert); h some ferrous staining.	
PID PROBE 100 B-4 (12.5-15')	(CH) 5Y 6 yellowish medium s	6/2 light olive gray and 2.5Y 6/4 light -brown high plasticity clay; trace silt, stiff and slightly moist.	
15 STATE OF TEXAS	15.0	Dettern of herebole at 15 0 feet	
PAUL E. BECKETT GEOLOGY 6022 CENSED SONAL & GEOS	TS/LIVE	Bottom of borehole at 15.0 feet.	



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# BORING NUMBER B-5 PAGE 1 OF 1

[ [ [ ] N [ ] ] ] T [ ] N [ ] [ 1: (210) 340-5004 F: (210) 340-50	
CLIENT Jasmine Engineering	
PROJECT NUMBER 116E1164	
	7 GROUND ELEVATION HOLE SIZE 3 inches
DRILLING CONTRACTOR Vortex	
DRILLING METHOD Geoprobe	
LOGGED BY JM CHECKED BY PEB	
NOTES	AFTER DRILLING
DEPTH  (ft)  (ft)  DRILLING  METHOD  RECOVERY (%)  SAMPLE ID  SAMPLE ID  DATA  DATA  GRAPHIC  LOG	MATERIAL DESCRIPTION WELL DIAGRAM
PROBE 5	Light tan and brown limestone gravel, clay and sand fill material
PID = 15 PROBE 100 (7.5-10') PID = 24.5	(CH) 10YR 4/1 dark gray high plasticity clay; soft and slightly moist.  - Transitions to 2.5Y 6/4 light yellowish-brown; trace calcite deposits, grading soft to medium stiff, slightly moist.
PROBE 100 (B-5) (12.5-15')	- increasing calcite deposits with depth.
15 STATE OF TE 15.0	(CH) 5Y 6/2 light olive gray and 2.5Y 6/4 light yellowish-brown high plasticity clay; medium stiff, slightly moist.
PAUL E. BECKETT  GEOLOGY  6022  CENSED CO  OVAL & GEOCO	Bottom of borehole at 15.0 feet.



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# BORING NUMBER B-6 PAGE 1 OF 1

CLIENT Jasmine Engineering	PROJECT NAME Sterling - Commerce LSI
	PROJECT LOCATION 1432-1434 E. Commerce Street, San Antonio, TX
DATE STARTED 12/16/17 COMPLETED 12	2/16/17 GROUND ELEVATION HOLE SIZE 3 inches
DRILLING CONTRACTOR Vortex	GROUND WATER LEVELS:
DRILLING METHOD Geoprobe	AT TIME OF DRILLING
LOGGED BY JM CHECKED BY P	
NOTES	AFTER DRILLING
DEPTH (f) DRILLING METHOD RECOVERY (%) SAMPLE ID SAMPLE ID DATA DATA LOG LOG	MATERIAL DESCRIPTION WELL DIAGRAM
PID = 34.8  PID = 36.3	(CH) 10YR 3/1 very dark gray high plasticity clay; soft and slightly moist; root hairs throughout, trace gravels.
5 PROBE 100	- Transitions to 2.5Y 6/4 light yellowish-brown; grades soft to medium stiff, slightly moist, calcite deposits throughout and trace cherty gravels from 9 to 10'.
PID = 136.8  PID = 185.2  PID = 185.2	- Transitions to 5Y 6/2 light olive gray and 2.5Y 6/4 light yellowish-brown; medium stiff and slightly moist, trace calcite.
PAUL E. BECKETT	Bottom of borehole at 15.0 feet.
GEOLOGY 6022 CENSED GO	

# APPENDIX C LABORATORY ANALYTICAL REPORT



Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123

REPORT NARRATIVE

12/22/2016

Paul Beckett

Drash Consultants, LLC

1045 Central Parkway North, Suite 103

San Antonio , Texas - 78232

TEL: (210) 340-5004 Email: pbeckett@drashconsultants.com

FAX:

RE: 116G1164 Sterling - Commerce LSI

Dear Paul Beckett: Order No.: 1612077

Enclosed please find the analytical report for the sample/s received on 12/17/2016.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

DATA: Sample were prepared, analyzed and reported using the methods outlined in the following references: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

QA/QC: All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives, except as noted in the report with data qualifiers.

SUBCONTRACTED: No analyses were subcontracted.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D

**Laboratory Director** 



**Date:** 22-Dec-16

### **Analytical Results Report**

**CLIENT:** Drash Consultants, LLC

**Lab Order** 1612077

**Project:** 116G1164 Sterling - Commerce LSI

**Collection Date:** 12/16/2016 10:36:00 AM

Matrix: SOIL

**Lab ID:** 1612077-01

**Client Sample ID:** B - 1 (6 - 8')

Analyses	Test Code	Result	Limit	Units	DF 1	Date Analyzed
Tacthleme: MEDCHDV	TOTAL				Amalua	st: JOL
TestName: MERCURY,					Analys	
Mercury	HG_R_S	< 0.04	0.04	mg/Kg-dry	1	12/21/2016
TestName: PERCENT M	IOISTURE				Analys	st: SM
Percent Moisture	PMOIST	11.2	0.1	wt%	1	12/20/2016
TestName: METALS-RC	RA, Total				Analys	st: JOL
Arsenic	RCRA7_S	< 2.5	2.5	mg/Kg-dry	1	12/22/2016
Barium	RCRA7_S	162	1	mg/Kg-dry	1	12/22/2016
Cadmium	RCRA7_S	< 0.5	0.5	mg/Kg-dry	1	12/22/2016
Chromium	RCRA7_S	16.6	0.5	mg/Kg-dry	1	12/22/2016
Lead	RCRA7_S	13.7	1.5	mg/Kg-dry	1	12/22/2016
Selenium	RCRA7_S	< 2	2	mg/Kg-dry	1	12/22/2016
Silver	RCRA7_S	< 0.78	0.78	mg/Kg-dry	1	12/22/2016
TestName: TOTAL PET	ROLEUM HYDRO	CAR			Analys	st: SLF
Hydrocarbons, C6-C12	TPH1005_S	< 50	50	mg/Kg	1	12/19/2016
Hydrocarbons, >C12-C28	TPH1005_S	< 50	50	mg/Kg	1	12/19/2016
Hydrocarbons, >C28-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19/2016
Hydrocarbons, C6-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19/2016

#### **Surrogate Recoveries**

<b>Test Code</b>	Analyte	Recovery	<b>Control Limits</b>
TPH1005_S	1-Chlorooctadecane	79%	70 <b>—</b> 130
TPH1005_S	1-Chlorooctane	83%	70 <b>—</b> 130

For Surrogates: 0 = Dil. Out

J - Analyte detected below quanititation limits

Approved by:

**Report of Laboratory Analysis** 

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.



**Date:** 22-Dec-16

## **Analytical Results Report**

**CLIENT:** Drash Consultants, LLC

**Lab Order** 1612077

**Project:** 116G1164 Sterling - Commerce LSI

**Collection Date:** 12/16/2016 11:48:00 AM

Matrix: SOIL

**Lab ID:** 1612077-03

**Client Sample ID:** B - 2 (8 - 10')

Analyses		Test Code	Result	Limit	Units	Ι	OF Date	Analyze	d
TestName:	MERCURY,	TOTAL				An	alyst:	JOL	
Mercury		HG_R_S	< 0.04	0.04	mg/Kg-dry	1	12/21	/2016	
TestName:	PERCENT M	OISTURE				An	alyst:	SM	
Percent Moistu	re	PMOIST	19.4	0.1	wt%	1	12/20	)/2016	
TestName:	METALS-RC	RA, Total				An	alyst:	JOL	
Arsenic		RCRA7_S	< 2.5	2.5	mg/Kg-dry	1	12/22	2/2016	
Barium		RCRA7_S	182	1	mg/Kg-dry	1	12/22	2/2016	
Cadmium		RCRA7_S	< 0.5	0.5	mg/Kg-dry	1	12/22	2/2016	
Chromium		RCRA7_S	10.9	0.5	mg/Kg-dry	1	12/22	2/2016	
Lead		RCRA7_S	5.19	1.5	mg/Kg-dry	1	12/22	2/2016	
Selenium		RCRA7_S	< 2	2	mg/Kg-dry	1	12/22	2/2016	
Silver		RCRA7_S	< 0.78	0.78	mg/Kg-dry	1	12/22	2/2016	
TestName:	TOTAL PETI	ROLEUM HYDRO	OCAR			An	alyst:	SLF	
Hydrocarbons,	C6-C12	TPH1005_S	< 50	50	mg/Kg	1	12/19	9/2016	
Hydrocarbons,	>C12-C28	TPH1005_S	< 50	50	mg/Kg	1	12/19	9/2016	
Hydrocarbons,	>C28-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19	9/2016	
Hydrocarbons,	C6-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19	9/2016	

#### **Surrogate Recoveries**

<b>Test Code</b>	Analyte	Recovery	<b>Control Limits</b>
TPH1005_S	1-Chlorooctadecane	100%	70 <b>—</b> 130
TPH1005_S	1-Chlorooctane	90%	70 <del></del> 130

For Surrogates: 0 = Dil. Out

J - Analyte detected below quanititation limits

Approved by:

**Report of Laboratory Analysis** 

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.



**Date:** 22-Dec-16

## **Analytical Results Report**

**CLIENT:** Drash Consultants, LLC

**Lab Order** 1612077

**Project:** 116G1164 Sterling - Commerce LSI

**Collection Date:** 12/16/2016 2:36:00 PM

Matrix: SOIL

**Lab ID:** 1612077-05

**Client Sample ID:** B - 3 (7.5 - 10')

Analyses		Test Code	Result	Limit	Units	D	OF Date Analyzed	
TestName:	MERCURY, 1	TOTAL				An	alyst: JOL	
Mercury		HG_R_S	< 0.04	0.04	mg/Kg-dry	1	12/21/2016	
TestName:	PERCENT M	OISTURE				An	alyst: SM	
Percent Moistur	re	PMOIST	24.9	0.1	wt%	1	12/20/2016	
TestName:	METALS-RC	RA, Total				An	alyst: JOL	
Arsenic		RCRA7_S	< 2.5	2.5	mg/Kg-dry	1	12/22/2016	
Barium		RCRA7_S	252	1	mg/Kg-dry	1	12/22/2016	
Cadmium		RCRA7_S	< 0.5	0.5	mg/Kg-dry	1	12/22/2016	
Chromium		RCRA7_S	19.3	0.5	mg/Kg-dry	1	12/22/2016	
Lead		RCRA7_S	14.9	1.5	mg/Kg-dry	1	12/22/2016	
Selenium		RCRA7_S	< 2	2	mg/Kg-dry	1	12/22/2016	
Silver		RCRA7_S	< 0.78	0.78	mg/Kg-dry	1	12/22/2016	
TestName:	TOTAL PETR	ROLEUM HYDRO	OCAR			An	alyst: SLF	
Hydrocarbons,	C6-C12	TPH1005_S	S < 50	50	mg/Kg	1	12/19/2016	
Hydrocarbons,	>C12-C28	TPH1005_S	S < 50	50	mg/Kg	1	12/19/2016	
Hydrocarbons,	>C28-C35	TPH1005_S	S < 50	50	mg/Kg	1	12/19/2016	
Hydrocarbons,	C6-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19/2016	

#### **Surrogate Recoveries**

<b>Test Code</b>	Analyte	Recovery	<b>Control Limits</b>
TPH1005_S	1-Chlorooctadecane	77%	70 <b>—</b> 130
TPH1005_S	1-Chlorooctane	76%	70 <b>—</b> 130

For Surrogates: 0 = Dil. Out

J - Analyte detected below quanititation limits

Approved by:

**Report of Laboratory Analysis** 

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**Date:** 22-Dec-16

### **Analytical Results Report**

**CLIENT:** Drash Consultants, LLC

**Lab Order** 1612077

**Project:** 116G1164 Sterling - Commerce LSI

**Collection Date:** 12/16/2016 3:06:00 PM

Matrix: SOIL

**Lab ID:** 1612077-07

**Client Sample ID:** B - 4 (12.5 - 15')

Analyses	Test Code	Result	Limit	Units	DF	Date	Analyzed
TestName: MERCURY, T	OTAL				Anal	yst:	JOL
Mercury	HG_R_S	< 0.04	0.04	mg/Kg-dry	1	-	1/2016
TestName: PERCENT MO	DISTURE				Anal	yst:	SM
Percent Moisture	PMOIST	18.9	0.1	wt%	1	12/20	0/2016
TestName: METALS-RCF	RA, Total				Anal	yst:	JOL
Arsenic	RCRA7_S	< 2.5	2.5	mg/Kg-dry	1	12/22	2/2016
Barium	RCRA7_S	40.5	1	mg/Kg-dry	1	12/22	2/2016
Cadmium	RCRA7_S	< 0.5	0.5	mg/Kg-dry	1	12/22	2/2016
Chromium	RCRA7_S	29.6	0.5	mg/Kg-dry	1	12/22	2/2016
Lead	RCRA7_S	8.26	1.5	mg/Kg-dry	1	12/22	2/2016
Selenium	RCRA7_S	< 2	2	mg/Kg-dry	1	12/22	2/2016
Silver	RCRA7_S	< 0.78	0.78	mg/Kg-dry	1	12/22	2/2016
TestName: TOTAL PETR	OLEUM HYDRO	CAR			Anal	yst:	SLF
Hydrocarbons, C6-C12	TPH1005_S	< 50	50	mg/Kg	1	12/19	9/2016
Hydrocarbons, >C12-C28	TPH1005_S	< 50	50	mg/Kg	1	12/19	9/2016
Hydrocarbons, >C28-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19	9/2016
Hydrocarbons, C6-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19	9/2016

#### **Surrogate Recoveries**

<b>Test Code</b>	Analyte	Recovery	<b>Control Limits</b>
TPH1005_S	1-Chlorooctadecane	75%	70 <b>—</b> 130
TPH1005_S	1-Chlorooctane	78%	70 <b>—</b> 130

For Surrogates: 0 = Dil. Out

J - Analyte detected below quanititation limits

Approved by:

**Report of Laboratory Analysis** 

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**Date:** 22-Dec-16

## **Analytical Results Report**

**CLIENT:** Drash Consultants, LLC

**Lab Order** 1612077

**Project:** 116G1164 Sterling - Commerce LSI

**Collection Date:** 12/16/2016 3:23:00 PM

Matrix: SOIL

**Lab ID:** 1612077-08

**Client Sample ID:** B - 5 (5 - 7.5')

Analyses	Test Code	Result	Limit	Units	DF	Date Analyzed
TestName: ME	RCURY, TOTAL				Analy	st: JOL
Mercury	HG_R_S	< 0.04	0.04	mg/Kg-dry	1	12/21/2016
TestName: PE	RCENT MOISTURE				Analy	st: SM
Percent Moisture	PMOIST	24.5	0.1	wt%	1	12/20/2016
TestName: ME	TALS-RCRA, Total				Analy	st: JOL
Arsenic	RCRA7_S	< 2.5	2.5	mg/Kg-dry	1	12/22/2016
Barium	RCRA7_S	355	1	mg/Kg-dry	1	12/22/2016
Cadmium	RCRA7_S	< 0.5	0.5	mg/Kg-dry	1	12/22/2016
Chromium	RCRA7_S	23.7	0.5	mg/Kg-dry	1	12/22/2016
Lead	RCRA7_S	13.3	1.5	mg/Kg-dry	1	12/22/2016
Selenium	RCRA7_S	< 2	2	mg/Kg-dry	1	12/22/2016
Silver	RCRA7_S	< 0.78	0.78	mg/Kg-dry	1	12/22/2016
TestName: TO	TAL PETROLEUM HYDF	ROCAR			Analy	st: SLF
Hydrocarbons, C6-C	12 TPH1005_	S < 50	50	mg/Kg	1	12/19/2016
Hydrocarbons, >C12	2-C28 TPH1005_	S < 50	50	mg/Kg	1	12/19/2016
Hydrocarbons, >C28	3-C35 TPH1005_	S < 50	50	mg/Kg	1	12/19/2016
Hydrocarbons, C6-C	35 TPH1005_	S < 50	50	mg/Kg	1	12/19/2016

#### **Surrogate Recoveries**

Test Code	Analyte	Recovery	<b>Control Limits</b>
TPH1005_S	1-Chlorooctadecane	74%	70—130
TPH1005_S	1-Chlorooctane	72%	70—130

For Surrogates: 0 = Dil. Out

J - Analyte detected below quanititation limits

Approved by:

**Report of Laboratory Analysis** 

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**Date:** 22-Dec-16

### **Analytical Results Report**

**CLIENT:** Drash Consultants, LLC

**Lab Order** 1612077

**Project:** 116G1164 Sterling - Commerce LSI

**Collection Date:** 12/16/2016 4:03:00 PM

Matrix: SOIL

**Lab ID:** 1612077-10

**Client Sample ID:** B - 6 (12.5 - 15')

Analyses	Test Code	Result	Limit	Units	DF I	Date Analyzed
TestName: MERCURY,	TOTAL				Analys	t: JOL
Mercury	HG_R_S	< 0.04	0.04	mg/Kg-dry		12/21/2016
Weredry	110_11_0	₹ 0.04	0.04	mg/rtg-dry	•	12/21/2010
TestName: PERCENT M	OISTURE				Analys	t: SM
Percent Moisture	PMOIST	25.7	0.1	wt%	1	12/20/2016
TestName: METALS-RC	RA, Total				Analys	t: JOL
Arsenic	RCRA7_S	< 2.5	2.5	mg/Kg-dry	1	12/22/2016
Barium	RCRA7_S	66.8	1	mg/Kg-dry	1	12/22/2016
Cadmium	RCRA7_S	< 0.5	0.5	mg/Kg-dry	1	12/22/2016
Chromium	RCRA7_S	17.9	0.5	mg/Kg-dry	1	12/22/2016
Lead	RCRA7_S	15.8	1.5	mg/Kg-dry	1	12/22/2016
Selenium	RCRA7_S	< 2	2	mg/Kg-dry	1	12/22/2016
Silver	RCRA7_S	< 0.78	0.78	mg/Kg-dry	1	12/22/2016
TestName: TOTAL PETF	ROLEUM HYDRO	CAR			Analys	t: SLF
Hydrocarbons, C6-C12	TPH1005_S		50	mg/Kg	-	12/19/2016
Hydrocarbons, >C12-C28	TPH1005_S	< 50	50	mg/Kg	1	12/19/2016
Hydrocarbons, >C28-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19/2016
Hydrocarbons, C6-C35	TPH1005_S	< 50	50	mg/Kg	1	12/19/2016

#### **Surrogate Recoveries**

<b>Test Code</b>	Analyte	Recovery	<b>Control Limits</b>
TPH1005_S	1-Chlorooctadecane	81%	70 <b>—</b> 130
TPH1005_S	1-Chlorooctane	79%	70 <b>—</b> 130

For Surrogates: 0 = Dil. Out

J - Analyte detected below quanititation limits

Approved by:

**Report of Laboratory Analysis** 

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# ALAMO ANALYTICAL LABORATORIES, LTD.

### **Analytical Results Report**

Drash Consultants, LLC Date: 22-Dec-16

Work Order: 1612077 Date Received: 17-Dec-16

Project Name: 116G1164 Sterling - Commerce I SI

Collection Date: 16-Dec-16

Project Name: 116G1164 Sterling - Commerce LSI
Preparation Date: 10-Dec-16

Matrix: SOIL

**Lab ID:** 1612077-02A

BTEX SW8260B Analyst: SS

		Date			
Analyte Benzene	<b>Result</b> < 0.005	1 imit 0.005	<b>DF</b> 1	<b>Units</b> mg/Kg	Analyzed 21-Dec-16
Toluene	< 0.005	0.005	1	mg/Kg	21-Dec-16
Ethylbenzene	< 0.005	0.005	1	mg/Kg	21-Dec-16
Xylenes, Total	< 0.015	0.015	1	mg/Kg	21-Dec-16
Methyl tert-butyl ether	< 0.005	0.005	1	mg/Kg	21-Dec-16

Analyte Recovery Control Limits

1,2-Dichloroethane-d4 89% 61—145
Toluene-d8 120% 54—163

For Surrogates: 0 = Dil. Out

**Client Sample ID** B - 2 (4 - 6')

Approved by:

peredely

**Report of Laboratory Analysis** 

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**BTEX** 

# ALAMO ANALYTICAL LABORATORIES, LTD.

## **Analytical Results Report**

Client: Drash Consultants, LLC

**Work Order:** 1612077

**Client Sample ID** B - 3 (2.5 - 5')

**Project Name:** 116G1164 Sterling - Commerce LSI

Date Received: 17-Dec-16

Collection Date: 16-Dec-16
Preparation Date: 21-Dec-16

Matrix: SOIL

Analyst: SS

**Lab ID:** 1612077-04A

**Date:** 22-Dec-16

SW8260B

		Reporting				
Analyte Benzene	<b>Result</b> < 0.005	1 imit 0.005	<b>DF</b> 1	<b>Units</b> mg/Kg	Analyzed 21-Dec-16	
Toluene	< 0.005	0.005	1	mg/Kg	21-Dec-16	
Ethylbenzene	< 0.005	0.005	1	mg/Kg	21-Dec-16	
Xylenes, Total	< 0.015	0.015	1	mg/Kg	21-Dec-16	
Methyl tert-butyl ether	< 0.005	0.005	1	mg/Kg	21-Dec-16	

Analyte Recoveries

1,2-Dichloroethane-d4
Toluene-d8

Surrogate Recoveries
Recovery

87%
61—145
54—163

For Surrogates: 0 = Dil. Out

Approved by:

9

**Report of Laboratory Analysis** 

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### **Analytical Results Report**

Client: Drash Consultants, LLC

**Work Order:** 1612077

**Client Sample ID** B - 4 (5 - 7.5')

**Project Name:** 116G1164 Sterling - Commerce LSI

**Date:** 22-Dec-16 **Date Received:** 17-Dec-16

Collection Date: 16-Dec-16
Preparation Date: 21-Dec-16

Matrix: SOIL

**Analyst:** SS

**Lab ID:** 1612077-06A

BTEX SW8260B

DILLI	811020	02		•		
		Date				
Analvte Benzene	<b>Result</b> < 0.005	1 imit 0.005	<b>DF</b> 1	Units mg/Kg	Analyzed 21-Dec-16	
Toluene	< 0.005	0.005	1	mg/Kg	21-Dec-16	
Ethylbenzene	< 0.005	0.005	1	mg/Kg	21-Dec-16	
Xylenes, Total	< 0.015	0.015	1	mg/Kg	21-Dec-16	
Methyl tert-butyl ether	< 0.005	0.005	1	mg/Kg	21-Dec-16	

Analyte Recovery Control Limits

1,2-Dichloroethane-d4 92% 61—145
Toluene-d8 117% 54—163

For Surrogates: 0 = Dil. Out

Approved by:

peredely

**Report of Laboratory Analysis** 

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**BTEX** 

# ALAMO ANALYTICAL LABORATORIES, LTD.

## **Analytical Results Report**

**Client:** Drash Consultants, LLC

Work Order: 1612077

**Client Sample ID** B - 5 (12.5 - 15')

**Project Name:** 116G1164 Sterling - Commerce LSI **Date:** 22-Dec-16

Date Received: 17-Dec-16

**Collection Date:** 16-Dec-16 **Preparation Date: 21-Dec-16** 

Analyst: SS

Matrix: SOIL

**Lab ID:** 1612077-09A

SW8260B

		Reporting					
Analyte Benzene	<b>Result</b> < 0.005	1.imit 0.005	<b>DF</b> 1	<b>Units</b> mg/Kg	<b>Analyzed</b> 21-Dec-16		
Toluene	< 0.005	0.005	1	mg/Kg	21-Dec-16		
Ethylbenzene	< 0.005	0.005	1	mg/Kg	21-Dec-16		
Xylenes, Total	< 0.015	0.015	1	mg/Kg	21-Dec-16		
Methyl tert-butyl ether	< 0.005	0.005	1	mg/Kg	21-Dec-16		

**Surrogate Recoveries Analyte** Recovery **Control Limits** 1,2-Dichloroethane-d4 86% 61—145 Toluene-d8 121% 54-163

For Surrogates: 0 = Dil. Out

Approved by:

**Report of Laboratory Analysis** 

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Work Order:

**Project Name:** 

# ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

1612077

## **Analytical Results Report**

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16 **Collection Date:** 16-Dec-16

**Preparation Date: 21-Dec-16** 

**Lab ID:** 1612077-01A

Matrix: SOIL

**Client Sample ID** B - 1 (6 - 8') SW8260B Analyst: SS **Volatile Organics by GC/MS** 

volatile Organics by GC/MS	S W 020	UD	Analyst. 55			
		Reporting			Date	
Analyte 1,1,1,2-Tetrachloroethane	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
1,1,1-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2,2-Tetrachloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromo-3-chloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromoethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,3,5-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,4-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
2,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
2-Butanone	< 10	10	1	ug/Kg	21-Dec-16	
2-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
2-Hexanone	< 10	10	1	ug/Kg	21-Dec-16	
4-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Isopropyltoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Methyl-2-pentanone	< 10	10	1	ug/Kg	21-Dec-16	
Acetone	< 10	10	1	ug/Kg	21-Dec-16	
Benzene	< 5	5	1	ug/Kg	21-Dec-16	

Approved by:

**Report of Laboratory Analysis** 

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## **Analytical Results Report**

**Date:** 22-Dec-16

Client: Drash Consultants, LLC
Work Order: Date Received: 17-Dec-16

Project Name:116G1164 Sterling - Commerce LSICollection Date:16-Dec-16Preparation Date:21-Dec-16

**Client Sample ID** B - 1 (6 - 8') **Matrix:** SOIL **Lab ID:** 1612077-01A

Volatile Organics by GC/MS SW8260B Analyst: SS

olathe Organics by GC/MS	S W 020	UD	Analyst. 55			
		Reporting		Date		
Analyte Bromobenzene	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
Bromochloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Bromodichloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Bromoform	< 5	5	1	ug/Kg	21-Dec-16	
Bromomethane	< 5	5	1	ug/Kg	21-Dec-16	
Carbon disulfide	< 5	5	1	ug/Kg	21-Dec-16	
Carbon tetrachloride	< 5	5	1	ug/Kg	21-Dec-16	
Chlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
Chloroethane	< 5	5	1	ug/Kg	21-Dec-16	
Chloroform	< 5	5	1	ug/Kg	21-Dec-16	
Chloromethane	< 5	5	1	ug/Kg	21-Dec-16	
cis-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
cis-1,3-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
Dibromochloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Dibromomethane	< 5	5	1	ug/Kg	21-Dec-16	
Dichlorodifluoromethane	< 5	5	1	ug/Kg	21-Dec-16	
Ethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Hexachlorobutadiene	< 5	5	1	ug/Kg	21-Dec-16	
Iodomethane	< 5	5	1	ug/Kg	21-Dec-16	
Isopropylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
m,p-Xylenes	< 10	10	1	ug/Kg	21-Dec-16	
Methyl tert-butyl ether	< 5	5	1	ug/Kg	21-Dec-16	
Methylene chloride	< 5	5	1	ug/Kg	21-Dec-16	
n-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
n-Propylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Naphthalene	< 15	15	1	ug/Kg	21-Dec-16	
o-Xylene	< 5	5	1	ug/Kg	21-Dec-16	
sec-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Styrene	< 5	5	1	ug/Kg	21-Dec-16	

Approved by:

Geredely

**Report of Laboratory Analysis** 

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Work Order:

**Project Name:** 

# ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

## **Analytical Results Report**

**Date:** 22-Dec-16

Date Received: 17-Dec-16 **Collection Date:** 16-Dec-16

**Analyst:** SS

**Preparation Date: 21-Dec-16** 

Matrix: SOIL

**Lab ID:** 1612077-01A

**Client Sample ID** B - 1 (6 - 8')

1612077

**Volatile Organics by GC/MS** 

SW8260B

Analyte tert-Butylbenzene	Reporting			J		
					Date	
	<b>Result</b> < 5	Limit 5	<b>DF</b>	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
Tetrachloroethene	< 5	5	1	ug/Kg	21-Dec-16	
Toluene	< 5	5	1	ug/Kg	21-Dec-16	
trans-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
trans-1,3-Dichloropropene	< 10	10	1	ug/Kg	21-Dec-16	
Trichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
Trichlorofluoromethane	< 5	5	1	ug/Kg	21-Dec-16	
Vinyl chloride	< 2	2	1	ug/Kg	21-Dec-16	

Surrogate Recoveries

Analyte	Recovery	Control Limits
1,2-Dichloroethane-d4	88%	61 <b>—</b> 145
4-Bromofluorobenzene	102%	46 <b>—</b> 164
Dibromofluoromethane	83%	48 <b>—</b> 160
Toluene-d8	124%	54 <b>—</b> 163

For Surrogates: 0 = Dil. Out

Approved by:

**Report of Laboratory Analysis** 

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Work Order:

**Project Name:** 

# ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

1612077

## **Analytical Results Report**

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16 **Collection Date:** 16-Dec-16

Matrix: SOIL

**Lab ID:** 1612077-03A

**Preparation Date: 21-Dec-16** 

**Client Sample ID** B - 2 (8 - 10')

olatile Organics by GC/MS	SW8260B			Analyst: SS		
		Reporting		Date		
Analyte 1,1,1,2-Tetrachloroethane	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
1,1,1-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2,2-Tetrachloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromo-3-chloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromoethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,3,5-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,4-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
2,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
2-Butanone	< 10	10	1	ug/Kg	21-Dec-16	
2-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
2-Hexanone	< 10	10	1	ug/Kg	21-Dec-16	
4-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Isopropyltoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Methyl-2-pentanone	< 10	10	1	ug/Kg	21-Dec-16	
Acetone	< 10	10	1	ug/Kg	21-Dec-16	
Benzene	< 5	5	1	ug/Kg	21-Dec-16	

Approved by:

**Report of Laboratory Analysis** 

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.



Work Order:

**Project Name:** 

# ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

1612077

## **Analytical Results Report**

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16

**Collection Date:** 16-Dec-16 **Preparation Date: 21-Dec-16** 

**Lab ID:** 1612077-03A

Matrix: SOIL

**Client Sample ID** B - 2 (8 - 10')

#### CIMPACOD

olatile Organics by GC/MS	SW8260B			Analyst: SS		
	Reporting			Date		
Analyte Bromobenzene	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	<b>Analyzed</b> 21-Dec-16	
Bromochloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Bromodichloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Bromoform	< 5	5	1	ug/Kg	21-Dec-16	
Bromomethane	< 5	5	1	ug/Kg	21-Dec-16	
Carbon disulfide	< 5	5	1	ug/Kg	21-Dec-16	
Carbon tetrachloride	< 5	5	1	ug/Kg	21-Dec-16	
Chlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
Chloroethane	< 5	5	1	ug/Kg	21-Dec-16	
Chloroform	< 5	5	1	ug/Kg	21-Dec-16	
Chloromethane	< 5	5	1	ug/Kg	21-Dec-16	
cis-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
cis-1,3-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
Dibromochloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Dibromomethane	< 5	5	1	ug/Kg	21-Dec-16	
Dichlorodifluoromethane	< 5	5	1	ug/Kg	21-Dec-16	
Ethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Hexachlorobutadiene	< 5	5	1	ug/Kg	21-Dec-16	
Iodomethane	< 5	5	1	ug/Kg	21-Dec-16	
Isopropylbenzene	5.4	5	1	ug/Kg	21-Dec-16	
m,p-Xylenes	< 10	10	1	ug/Kg	21-Dec-16	
Methyl tert-butyl ether	< 5	5	1	ug/Kg	21-Dec-16	
Methylene chloride	< 5	5	1	ug/Kg	21-Dec-16	
n-Butylbenzene	5.4	5	1	ug/Kg	21-Dec-16	
n-Propylbenzene	11.6	5	1	ug/Kg	21-Dec-16	
Naphthalene	< 15	15	1	ug/Kg	21-Dec-16	
o-Xylene	< 5	5	1	ug/Kg	21-Dec-16	
sec-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Styrene	< 5	5	1	ug/Kg	21-Dec-16	

Approved by:

**Report of Laboratory Analysis** 

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Work Order:

**Project Name:** 

Analyte

Toluene

tert-Butylbenzene
Tetrachloroethene

Trichloroethene

Vinyl chloride

trans-1,2-Dichloroethene trans-1,3-Dichloropropene

Trichlorofluoromethane

# ALAMO ANALYTICAL LABORATORIES, LTD.

Drash Consultants, LLC

1612077

#### **Analytical Results Report**

**Date:** 22-Dec-16

Date Received: 17-Dec-16

Collection Date: 16-Dec-16

Preparation Date: 21-Dec-16

**Analyst:** SS

Matrix: SOIL

**Lab ID:** 1612077-03A

21-Dec-16

21-Dec-16

21-Dec-16

21-Dec-16

116G1164 Sterling - Commerce LSI

Client Sample ID B - 2 (8 - 10')

Volatile Organics by GC/MS

GC/MS SW8260B

511020	ОВ			<b>3</b>	
	Reporting			Date	
<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
< 5	5	1	ug/Kg	21-Dec-16	
< 5	5	1	ug/Kg	21-Dec-16	
< 5	5	1	ug/Kg	21-Dec-16	
< 5	5	1	ug/Kg	21-Dec-16	

ug/Kg

ug/Kg

ug/Kg

ug/Kg

< 2 2

10

5

5

1

1

1

	Surrogate Recoveries	
Analyte	Recovery	<b>Control Limits</b>
1,2-Dichloroethane-d4	62%	61 <b>—</b> 145
4-Bromofluorobenzene	102%	46 <del></del> 164
Dibromofluoromethane	73%	48 <b>—</b> 160
Toluene-d8	143%	54—163

< 10

< 5

< 5

For Surrogates: 0 = Dil. Out

Approved by:

peredly

**Report of Laboratory Analysis** 



Work Order:

**Project Name:** 

# ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

1612077

## **Analytical Results Report**

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16 **Collection Date:** 16-Dec-16

**Preparation Date: 21-Dec-16** 

**Lab ID:** 1612077-05A

Matrix: SOIL

**Client Sample ID** B - 3 (7.5 - 10')

olatile Organics by GC/MS	SW8260B			Analyst: SS		
		Reporting			Date	
Analyte 1,1,1,2-Tetrachloroethane	<b>Result</b> < 5	Limit 5	<b>DF</b>	<b>Units</b> ug/Kg	<b>Analyzed</b> 21-Dec-16	
1,1,1-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2,2-Tetrachloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromo-3-chloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromoethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,3,5-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,4-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
2,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
2-Butanone	< 10	10	1	ug/Kg	21-Dec-16	
2-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
2-Hexanone	< 10	10	1	ug/Kg	21-Dec-16	
4-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Isopropyltoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Methyl-2-pentanone	< 10	10	1	ug/Kg	21-Dec-16	
Acetone	< 10	10	1	ug/Kg	21-Dec-16	
Benzene	< 5	5	1	ug/Kg	21-Dec-16	

Approved by:

**Report of Laboratory Analysis** 

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## ALAMO ANALYTICAL LABORATORIES, LTD.

#### **Analytical Results Report**

Drash Consultants, LLC

Work Order: 1612077

**Project Name:** 116G1164 Sterling - Commerce LSI

**Client Sample ID** B - 3 (7.5 - 10')

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16 **Collection Date:** 16-Dec-16

**Preparation Date: 21-Dec-16** Matrix: SOIL

**Lab ID:** 1612077-05A

latile Organics by GC/MS	SW820	60B		A	nalyst: SS
		Reporting			Date
Analyte Bromobenzene	<b>Result</b> < 5	Limit 5	<b>DF</b>	<b>Units</b> ug/Kg	<b>Analyzed</b> 21-Dec-16
Bromochloromethane	< 5	5	1	ug/Kg	21-Dec-16
Bromodichloromethane	< 5	5	1	ug/Kg	21-Dec-16
Bromoform	< 5	5	1	ug/Kg	21-Dec-16
Bromomethane	< 5	5	1	ug/Kg	21-Dec-16
Carbon disulfide	< 5	5	1	ug/Kg	21-Dec-16
Carbon tetrachloride	< 5	5	1	ug/Kg	21-Dec-16
Chlorobenzene	< 5	5	1	ug/Kg	21-Dec-16
Chloroethane	< 5	5	1	ug/Kg	21-Dec-16
Chloroform	< 5	5	1	ug/Kg	21-Dec-16
Chloromethane	< 5	5	1	ug/Kg	21-Dec-16
cis-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16
cis-1,3-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16
Dibromochloromethane	< 5	5	1	ug/Kg	21-Dec-16
Dibromomethane	< 5	5	1	ug/Kg	21-Dec-16
Dichlorodifluoromethane	< 5	5	1	ug/Kg	21-Dec-16
Ethylbenzene	< 5	5	1	ug/Kg	21-Dec-16
Hexachlorobutadiene	< 5	5	1	ug/Kg	21-Dec-16
Iodomethane	< 5	5	1	ug/Kg	21-Dec-16
Isopropylbenzene	< 5	5	1	ug/Kg	21-Dec-16
m,p-Xylenes	< 10	10	1	ug/Kg	21-Dec-16
Methyl tert-butyl ether	< 5	5	1	ug/Kg	21-Dec-16
Methylene chloride	< 5	5	1	ug/Kg	21-Dec-16
n-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16
n-Propylbenzene	< 5	5	1	ug/Kg	21-Dec-16
Naphthalene	< 15	15	1	ug/Kg	21-Dec-16
o-Xylene	< 5	5	1	ug/Kg	21-Dec-16
sec-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16
Styrene	< 5	5	1	ug/Kg	21-Dec-16

Approved by:

**Report of Laboratory Analysis** 



**Client Sample ID** B - 3 (7.5 - 10')

## ALAMO ANALYTICAL LABORATORIES, LTD.

#### **Analytical Results Report**

**Date:** 22-Dec-16

Client: Drash Consultants, LLC
Work Order: 1612077 Date Received: 17-Dec-16

Project Name:116G1164 Sterling - Commerce LSICollection Date:16-Dec-16Preparation Date:21-Dec-16

Matrix: SOIL

Volatile Organics by GC/MS

SW8260B

Lab ID: 1612077-05A

Analyst: SS

volutile Organics by GC/1115	D 11 02 0 0 D					
		Reporting			Date	
Analyte tert-Butylbenzene	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
Tetrachloroethene	< 5	5	1	ug/Kg	21-Dec-16	
Toluene	< 5	5	1	ug/Kg	21-Dec-16	
trans-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
trans-1,3-Dichloropropene	< 10	10	1	ug/Kg	21-Dec-16	
Trichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
Trichlorofluoromethane	< 5	5	1	ug/Kg	21-Dec-16	
Vinyl chloride	< 2	2	1	ug/Kg	21-Dec-16	

Surrogate Recoveries

Analyte	Recovery	<b>Control Limits</b>
1,2-Dichloroethane-d4	88%	61 <b>—</b> 145
4-Bromofluorobenzene	105%	46 <b>—</b> 164
Dibromofluoromethane	83%	48 <b>—</b> 160
Toluene-d8	138%	54 <b>—</b> 163

For Surrogates: 0 = Dil. Out

Approved by:

redely

**Report of Laboratory Analysis** 

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Work Order:

**Project Name:** 

## ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

#### **Analytical Results Report**

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16

**Collection Date:** 16-Dec-16 **Preparation Date: 21-Dec-16** 

Matrix: SOIL

**Lab ID:** 1612077-07A

**Client Sample ID** B - 4 (12.5 - 15')

1612077

Drash Consultants, LLC

Volatile Organics by GC/MS	SW826	60B		A	nalyst: SS	
		Reporting		Date		
Analyte 1,1,1,2-Tetrachloroethane	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
1,1,1-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2,2-Tetrachloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromo-3-chloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromoethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,3,5-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,4-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
2,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
2-Butanone	< 10	10	1	ug/Kg	21-Dec-16	
2-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
2-Hexanone	< 10	10	1	ug/Kg	21-Dec-16	
4-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Isopropyltoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Methyl-2-pentanone	< 10	10	1	ug/Kg	21-Dec-16	
Acetone	< 10	10	1	ug/Kg	21-Dec-16	
Benzene	< 5	5	1	ug/Kg	21-Dec-16	

Approved by:

**Report of Laboratory Analysis** 



Work Order:

**Project Name:** 

## ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

**Analytical Results Report** 

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16 **Collection Date:** 16-Dec-16

**Preparation Date: 21-Dec-16** 

Analyst: SS

**Lab ID:** 1612077-07A

Matrix: SOIL

**Client Sample ID** B - 4 (12.5 - 15')

1612077

**Volatile Organics by GC/MS** 

SW8260B

lattic Organics by GC/MS	5 W 0200D			Timely 500 BB		
		Reporting			Date	
Analyte Bromobenzene	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
Bromochloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Bromodichloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Bromoform	< 5	5	1	ug/Kg	21-Dec-16	
Bromomethane	< 5	5	1	ug/Kg	21-Dec-16	
Carbon disulfide	< 5	5	1	ug/Kg	21-Dec-16	
Carbon tetrachloride	< 5	5	1	ug/Kg	21-Dec-16	
Chlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
Chloroethane	< 5	5	1	ug/Kg	21-Dec-16	
Chloroform	< 5	5	1	ug/Kg	21-Dec-16	
Chloromethane	< 5	5	1	ug/Kg	21-Dec-16	
cis-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
cis-1,3-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
Dibromochloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Dibromomethane	< 5	5	1	ug/Kg	21-Dec-16	
Dichlorodifluoromethane	< 5	5	1	ug/Kg	21-Dec-16	
Ethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Hexachlorobutadiene	< 5	5	1	ug/Kg	21-Dec-16	
lodomethane	< 5	5	1	ug/Kg	21-Dec-16	
Isopropylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
m,p-Xylenes	< 10	10	1	ug/Kg	21-Dec-16	
Methyl tert-butyl ether	< 5	5	1	ug/Kg	21-Dec-16	
Methylene chloride	< 5	5	1	ug/Kg	21-Dec-16	
n-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
n-Propylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Naphthalene	< 15	15	1	ug/Kg	21-Dec-16	
o-Xylene	< 5	5	1	ug/Kg	21-Dec-16	
sec-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
04	_	_		// /	04.540	

Approved by:

Styrene

**Report of Laboratory Analysis** 

5

ug/Kg

21-Dec-16

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< 5



Work Order:

**Project Name:** 

## ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

#### **Analytical Results Report**

**Date:** 22-Dec-16

**Date:** 22-Dec-16

Date Received: 17-Dec-16
Collection Date: 16-Dec-16

**Analyst:** SS

Preparation Date: 21-Dec-16

Matrix: SOIL

**Lab ID:** 1612077-07A

**Client Sample ID** B - 4 (12.5 - 15')

1612077

**Volatile Organics by GC/MS** 

SW8260B

volutile Organies by Genius	5 11 020	UD			
		Reporting			Date
Analyte tert-Butylbenzene	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	<b>Analyzed</b> 21-Dec-16
Tetrachloroethene	< 5	5	1	ug/Kg	21-Dec-16
Toluene	< 5	5	1	ug/Kg	21-Dec-16
trans-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16
trans-1,3-Dichloropropene	< 10	10	1	ug/Kg	21-Dec-16
Trichloroethene	< 5	5	1	ug/Kg	21-Dec-16
Trichlorofluoromethane	< 5	5	1	ug/Kg	21-Dec-16
Vinyl chloride	< 2	2	1	ug/Kg	21-Dec-16

Surrogate Recoveries

Analyte	Recovery	<b>Control Limits</b>
1,2-Dichloroethane-d4	95%	61 <b>—</b> 145
4-Bromofluorobenzene	107%	46—164
Dibromofluoromethane	92%	48—160
Toluene-d8	143%	54 <b>—</b> 163

For Surrogates: 0 = Dil. Out

Approved by:

redely

**Report of Laboratory Analysis** 

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Work Order:

**Project Name:** 

## ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

1612077

**Client Sample ID** B - 5 (5 - 7.5')

#### **Analytical Results Report**

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16

**Collection Date:** 16-Dec-16 **Preparation Date: 21-Dec-16** 

**Lab ID:** 1612077-08A

Matrix: SOIL

SW8260B Analyst: SS **Volatile Organics by GC/MS** 

orathe Organics by GC/MS	5 W 8200D			Analyst. 55		
		Reporting			Date	
Analyte 1,1,1,2-Tetrachloroethane	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
1,1,1-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2,2-Tetrachloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1,2-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
1,1-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,3-Trichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2,4-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromo-3-chloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dibromoethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16	
1,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,3,5-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
1,3-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
1,4-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
2,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16	
2-Butanone	< 10	10	1	ug/Kg	21-Dec-16	
2-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
2-Hexanone	< 10	10	1	ug/Kg	21-Dec-16	
4-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Isopropyltoluene	< 5	5	1	ug/Kg	21-Dec-16	
4-Methyl-2-pentanone	< 10	10	1	ug/Kg	21-Dec-16	
Acetone	< 10	10	1	ug/Kg	21-Dec-16	
Benzene	< 5	5	1	ug/Kg	21-Dec-16	

Approved by:

**Report of Laboratory Analysis** 



Work Order:

**Project Name:** 

## ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

1612077

**Analytical Results Report** 

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16 **Collection Date:** 16-Dec-16 **Preparation Date: 21-Dec-16** 

**Lab ID:** 1612077-08A

Matrix: SOIL

**Client Sample ID** B - 5 (5 - 7.5')

Volatile Organics by GC/MS	SW8260B			Analyst: SS		
	Reporting			Date		
Analyte Bromobenzene	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16	
Bromochloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Bromodichloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Bromoform	< 5	5	1	ug/Kg	21-Dec-16	
Bromomethane	< 5	5	1	ug/Kg	21-Dec-16	
Carbon disulfide	< 5	5	1	ug/Kg	21-Dec-16	
Carbon tetrachloride	< 5	5	1	ug/Kg	21-Dec-16	
Chlorobenzene	< 5	5	1	ug/Kg	21-Dec-16	
Chloroethane	< 5	5	1	ug/Kg	21-Dec-16	
Chloroform	< 5	5	1	ug/Kg	21-Dec-16	
Chloromethane	< 5	5	1	ug/Kg	21-Dec-16	
cis-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16	
cis-1,3-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16	
Dibromochloromethane	< 5	5	1	ug/Kg	21-Dec-16	
Dibromomethane	< 5	5	1	ug/Kg	21-Dec-16	
Dichlorodifluoromethane	< 5	5	1	ug/Kg	21-Dec-16	
Ethylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Hexachlorobutadiene	< 5	5	1	ug/Kg	21-Dec-16	
Iodomethane	< 5	5	1	ug/Kg	21-Dec-16	
Isopropylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
m,p-Xylenes	< 10	10	1	ug/Kg	21-Dec-16	
Methyl tert-butyl ether	< 5	5	1	ug/Kg	21-Dec-16	
Methylene chloride	< 5	5	1	ug/Kg	21-Dec-16	
n-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
n-Propylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Naphthalene	< 15	15	1	ug/Kg	21-Dec-16	
o-Xylene	< 5	5	1	ug/Kg	21-Dec-16	
sec-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16	
Styrene	< 5	5	1	ug/Kg	21-Dec-16	

Approved by:

**Report of Laboratory Analysis** 



Work Order:

## ALAMO ANALYTICAL LABORATORIES, LTD.

Drash Consultants, LLC

## **Analytical Results Report**

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16

**Collection Date:** 16-Dec-16 **Preparation Date: 21-Dec-16** 

Matrix: SOIL

**Lab ID:** 1612077-08A

**Project Name:** 116G1164 Sterling - Commerce LSI

1612077

**Volatile Organics by GC/MS** 

**Client Sample ID** B - 5 (5 - 7.5')

#### SW

V8260B Analyst: SS	
--------------------	--

		Reporting			Date
Analvte tert-Butylbenzene	<b>Result</b> < 5	Limit 5	<b>DF</b>	<b>Units</b> ug/Kg	<b>Analyzed</b> 21-Dec-16
Tetrachloroethene	< 5	5	1	ug/Kg	21-Dec-16
Toluene	< 5	5	1	ug/Kg	21-Dec-16
trans-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16
trans-1,3-Dichloropropene	< 10	10	1	ug/Kg	21-Dec-16
Trichloroethene	< 5	5	1	ug/Kg	21-Dec-16
Trichlorofluoromethane	< 5	5	1	ug/Kg	21-Dec-16
Vinyl chloride	< 2	2	1	ug/Kg	21-Dec-16

Surrogate Recoveries

Analyte	Recovery	Control Limits
1,2-Dichloroethane-d4	85%	61 <b>—</b> 145
4-Bromofluorobenzene	101%	46 <b>—</b> 164
Dibromofluoromethane	80%	48 <del></del> 160
Toluene-d8	122%	54 <b>—</b> 163

For Surrogates: 0 = Dil. Out

Approved by:

**Report of Laboratory Analysis** 

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.



Work Order:

**Project Name:** 

## ALAMO ANALYTICAL LABORATORIES, LTD.

116G1164 Sterling - Commerce LSI

Drash Consultants, LLC

1612077

**Volatile Organics by GC/MS** 

#### **Analytical Results Report**

**Date:** 22-Dec-16

**Date Received:** 17-Dec-16

**Collection Date:** 16-Dec-16 **Preparation Date: 21-Dec-16** 

**Lab ID:** 1612077-10A

Matrix: SOIL

**Client Sample ID** B - 6 (12.5 - 15')

SW8260B Analyst: SS

mathe Organics by GC/MS	5 11 020	иD			indigite bb
		Reporting			Date
Analyte 1,1,1,2-Tetrachloroethane	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	<b>Analyzed</b> 21-Dec-16
1,1,1-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16
1,1,2,2-Tetrachloroethane	< 5	5	1	ug/Kg	21-Dec-16
1,1,2-Trichloroethane	< 5	5	1	ug/Kg	21-Dec-16
1,1-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16
1,1-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16
1,1-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16
1,2,3-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16
1,2,3-Trichloropropane	< 5	5	1	ug/Kg	21-Dec-16
1,2,4-Trichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16
1,2,4-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16
1,2-Dibromo-3-chloropropane	< 5	5	1	ug/Kg	21-Dec-16
1,2-Dibromoethane	< 5	5	1	ug/Kg	21-Dec-16
1,2-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16
1,2-Dichloroethane	< 5	5	1	ug/Kg	21-Dec-16
1,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16
1,3,5-Trimethylbenzene	< 5	5	1	ug/Kg	21-Dec-16
1,3-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16
1,3-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16
1,4-Dichlorobenzene	< 5	5	1	ug/Kg	21-Dec-16
2,2-Dichloropropane	< 5	5	1	ug/Kg	21-Dec-16
2-Butanone	< 10	10	1	ug/Kg	21-Dec-16
2-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16
2-Hexanone	< 10	10	1	ug/Kg	21-Dec-16
4-Chlorotoluene	< 5	5	1	ug/Kg	21-Dec-16
4-Isopropyltoluene	< 5	5	1	ug/Kg	21-Dec-16
4-Methyl-2-pentanone	< 10	10	1	ug/Kg	21-Dec-16
Acetone	< 10	10	1	ug/Kg	21-Dec-16
Benzene	< 5	5	1	ug/Kg	21-Dec-16

Approved by:

**Report of Laboratory Analysis** 



**Client Sample ID** B - 6 (12.5 - 15')

## ALAMO ANALYTICAL LABORATORIES, LTD.

#### **Analytical Results Report**

Drash Consultants, LLC Date: 22-Dec-16

Work Order: 1612077 Date Received: 17-Dec-16
Collection Date: 16-Dec-16

Project Name: 116G1164 Sterling - Commerce LSI

Collection Date: 16-Dec-16
Preparation Date: 21-Dec-16

**Matrix:** SOIL **Lab ID:** 1612077-10A

Volatile Organics by GC/MS SW8260B Analyst: SS

name Organics by GC/MS	5 11 020	JUD .			ilalyst. ss
		Reporting			Date
Analyte Bromobenzene	<b>Result</b> < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	Analyzed 21-Dec-16
Bromochloromethane	< 5	5	1	ug/Kg	21-Dec-16
Bromodichloromethane	< 5	5	1	ug/Kg	21-Dec-16
Bromoform	< 5	5	1	ug/Kg	21-Dec-16
Bromomethane	< 5	5	1	ug/Kg	21-Dec-16
Carbon disulfide	< 5	5	1	ug/Kg	21-Dec-16
Carbon tetrachloride	< 5	5	1	ug/Kg	21-Dec-16
Chlorobenzene	< 5	5	1	ug/Kg	21-Dec-16
Chloroethane	< 5	5	1	ug/Kg	21-Dec-16
Chloroform	< 5	5	1	ug/Kg	21-Dec-16
Chloromethane	< 5	5	1	ug/Kg	21-Dec-16
cis-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16
cis-1,3-Dichloropropene	< 5	5	1	ug/Kg	21-Dec-16
Dibromochloromethane	< 5	5	1	ug/Kg	21-Dec-16
Dibromomethane	< 5	5	1	ug/Kg	21-Dec-16
Dichlorodifluoromethane	< 5	5	1	ug/Kg	21-Dec-16
Ethylbenzene	< 5	5	1	ug/Kg	21-Dec-16
Hexachlorobutadiene	< 5	5	1	ug/Kg	21-Dec-16
Iodomethane	< 5	5	1	ug/Kg	21-Dec-16
Isopropylbenzene	< 5	5	1	ug/Kg	21-Dec-16
m,p-Xylenes	< 10	10	1	ug/Kg	21-Dec-16
Methyl tert-butyl ether	< 5	5	1	ug/Kg	21-Dec-16
Methylene chloride	< 5	5	1	ug/Kg	21-Dec-16
n-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16
n-Propylbenzene	< 5	5	1	ug/Kg	21-Dec-16
Naphthalene	< 15	15	1	ug/Kg	21-Dec-16
o-Xylene	< 5	5	1	ug/Kg	21-Dec-16
sec-Butylbenzene	< 5	5	1	ug/Kg	21-Dec-16
Styrene	< 5	5	1	ug/Kg	21-Dec-16

Approved by:

Geredely

**Report of Laboratory Analysis** 



**Client Sample ID** B - 6 (12.5 - 15')

## ALAMO ANALYTICAL LABORATORIES, LTD.

#### **Analytical Results Report**

**Date:** 22-Dec-16 Drash Consultants, LLC

**Client: Date Received:** 17-Dec-16 Work Order: 1612077

**Collection Date:** 16-Dec-16 **Project Name:** 116G1164 Sterling - Commerce LSI **Preparation Date: 21-Dec-16** 

Matrix: SOIL

**Lab ID:** 1612077-10A

SW8260B Analyst: SS **Volatile Organics by GC/MS** 

		Reporting			Date
Analyte tert-Butylbenzene	Result < 5	Limit 5	<b>DF</b> 1	<b>Units</b> ug/Kg	<b>Analyzed</b> 21-Dec-16
Tetrachloroethene	< 5	5	1	ug/Kg	21-Dec-16
Toluene	< 5	5	1	ug/Kg	21-Dec-16
trans-1,2-Dichloroethene	< 5	5	1	ug/Kg	21-Dec-16
trans-1,3-Dichloropropene	< 10	10	1	ug/Kg	21-Dec-16
Trichloroethene	< 5	5	1	ug/Kg	21-Dec-16
Trichlorofluoromethane	< 5	5	1	ug/Kg	21-Dec-16
Vinyl chloride	< 2	2	1	ug/Kg	21-Dec-16

**Surrogate Recoveries** 

Analyte	Recovery	<b>Control Limits</b>
1,2-Dichloroethane-d4	92%	61 <b>—</b> 145
4-Bromofluorobenzene	102%	46 <b>—</b> 164
Dibromofluoromethane	88%	48 <b>—</b> 160
Toluene-d8	130%	54 <b>—</b> 163

For Surrogates: 0 = Dil. Out

Approved by:

**Report of Laboratory Analysis** 

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<2

< 0.78

50

50

103.8%

96.0%

**Date:** 22-Dec-16

CLIENT: Drash Consultants, LLC QC SUMMARY REPORT

Work Order: 1612077 116G1164 Sterling - Commerce LSI **Project:** %REC %REC **RPD** RPD Low - High Limit SPK value LCS LCSD RPD % RPD Limit % Parent DUP % Limi Analyte BLK MS MSD Limit Batch ID: BTXS GCMS-12/21/2016 TestName: BTEX Test Code: SW8260B **Analysis Date:** 12/21/2016 Run ID: BTEX1\_161221A Units: mg/Kg Prep Date: 12/21/2016 Benzene < 0.005 0.05 102.7% 95.1% 8.000 30.0 57 - 142 Toluene < 0.005 0.05 103.0% 109.7% 6.000 30.0 53 - 145 Ethylbenzene < 0.005 0.05 108.7% 100.2% 8.000 30.0 66 - 142 Xylenes, Total < 0.015 0.15 104.1% 96.8% 7.000 30.0 55 - 140 < 0.005 102.5% Methyl tert-butyl ether 0.05 100.2% 2.000 30.0 54 - 170 Batch ID: HG\_R\_S-12/22/2016 TestName: MERCURY, TOTAL Test Code: SW7471A Run ID: HG 161221A Units: mg/Kg **Analysis Date:** 12/21/2016 Prep Date: 12/21/2016 8:30:00 < 0.04 98.0% 96.0% 2.000 25.0 96.0% 94.0% 2.000 25.0 77 - 120 0.5 Mercury Batch ID: PMOIST-12/19/2016 PERCENT MOISTURE TestName: Run ID: Test Code: D2216 Units: wt% Analysis Date: 12/20/2016 11:00:00 AM Prep Date: BAL1 161219A 12/19/2016 5:45:00 Percent Moisture 15.9 15.7 1.000 15.0 RCRA7\_S-12/22/2016 Batch ID: TestName: METALS-RCRA, Total Run ID: ICP 161222D Test Code: SW6010B Units: mg/Kg Analysis Date: 12/22/2016 1:00:00 PM Prep Date: 12/21/2016 9:00:00 99.8% 30.0 73.2% 30.0 <2.5 50 100.0% 0.000 75.6% 3.000 80 - 120 Arsenic Barium <1 50 98.2% 96.8% 1.000 30.0 77.6% 84.6% 3.000 30.0 80 - 120 Cadmium < 0.5 50 103.0% 103.8% 1.000 30.0 81.0% 83.0% 2.000 30.0 80 - 120 Chromium < 0.5 50 98.4% 100.4% 2.000 30.0 76.6% 79.4% 2.000 30.0 80 - 120 Lead <1.5 50 101.4% 100.0% 1.000 30.0 77.6% 80.2% 2.000 30.0 80 - 120

Approved by: Seedly

Selenium

Silver

**Laboratory QC Report** 

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

3.000

0.000

30.0

30.0

84.8%

78.8%

86.8%

79.2%

2.000

1.000

30.0

30.0

80 - 120

80 - 120

100.6%

96.4%



**CLIENT:** Drash Consultants, LLC

Work Order: 1612077 Project: 116G1164 Sterling - Commerce LSI

**QC SUMMARY REPORT** 

			%F	REC			%R	REC	F	RPD	Low - High				RPD
Analyte	BLK	SPK valu	e LCS	LCSD	RPD % RI	PD Limit	MS	MSD	%	Limit	Limit	Parent	DUF	<b>-</b> %	Limi
<b>Batch ID:</b> TPH1005_S-12/21/2016	Testl	Name: TO	TAL PE	ETROLE	UM HYDI	ROCARB	ONS								
<b>Run ID:</b> TPH_161219B	Test C	ode: TX1	005		<b>Units:</b> mo	g/Kg		Analys	is Date:	12/19/2016		Prep Da	ite:	12/19/2016	
Hydrocarbons, C6-C12	<50	500	99.2%	81.2%	20.000	30.0	86.2%	80.2%	7.000	30.0	75 - 125				
Hydrocarbons, >C12-C28	<50	500	104.8%	116.6%	11.000	30.0	96.4%	118.6%	21.000	30.0	75 - 125				
Hydrocarbons, >C28-C35	<50														
Hydrocarbons, C6-C35	<50	1000	102.0%	98.9%	3.000	30.0	90.3%	99.4%	10.000	30.0	75 - 125				

Approved by:

peredely

**Laboratory QC Report** 



**CLIENT:** Drash Consultants, LLC

Work Order: 1612077 Project: 116G1164 Sterling - Commerce LSI

## **QC SUMMARY REPORT**

			%F	REC			%RI	EC		RPD	Low - High				RPD
Analyte	BLK	SPK valu	e LCS	LCSD F	RPD % RPD	Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Lim
Batch ID: VOC1_161221A	TestN	ame: Vo	olatile Or	ganics by	GC/MS										
<b>Run ID:</b> VOC1_161221A	Test Co	ode: SW	8260B	U	nits: ug/K	9		Analysi	is Date:	12/21/201	6 3:46:00 PM	Prep Da	te: 1	2/21/2016	3:46:00
1,1,1,2-Tetrachloroethane	<5														
1,1,1-Trichloroethane	<5	50	99.6%								42 - 177				
1,1,2,2-Tetrachloroethane	<5														
1,1,2-Trichloroethane	<5														
1,1-Dichloroethane	<5														
1,1-Dichloroethene	<5	50	93.7%								59 - 143				
1,1-Dichloropropene	<5														
1,2,3-Trichlorobenzene	<5														
1,2,3-Trichloropropane	<5														
1,2,4-Trichlorobenzene	<5														
1,2,4-Trimethylbenzene	<5														
1,2-Dibromo-3-chloropropane	<5														
1,2-Dibromoethane	<5														
1,2-Dichlorobenzene	<5														
1,2-Dichloroethane	<5														
1,2-Dichloropropane	<5														
1,3,5-Trimethylbenzene	<5														
1,3-Dichlorobenzene	<5														
1,3-Dichloropropane	<5														
1,4-Dichlorobenzene	<5														
2,2-Dichloropropane	<5														
2-Butanone	<10														
2-Chlorotoluene	<5														
2-Hexanone	<10														
4-Chlorotoluene	<5														
4-Isopropyltoluene	<5														
4-Methyl-2-pentanone	<10														
Acetone	<10														
Benzene	<5	50	95.1%								57 - 142				

Approved by:

Laboratory QC Report



CLIENT: Drash Consultants, LLC

**QC SUMMARY REPORT** 

Work Order: 1612077 Project: 116G1164 Sterling - Commerce LSI

			%R	EC		%R	EC		RPD	Low - High			ı	RPD
Analyte	BLK	SPK value	LCS	LCSD	RPD % RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limi
Bromobenzene	<5													
Bromochloromethane	<5													
Bromodichloromethane	<5													
Bromoform	<5													
Bromomethane	<5													
Carbon disulfide	<5													
Carbon tetrachloride	<5													
Chlorobenzene	<5	50	93.6%							61 - 134				
Chloroethane	<5													
Chloroform	<5													
Chloromethane	<5													
cis-1,2-Dichloroethene	<5													
cis-1,3-Dichloropropene	<5													
Dibromochloromethane	<5													
Dibromomethane	<5													
Dichlorodifluoromethane	<5													
Ethylbenzene	<5													
Hexachlorobutadiene	<5													
lodomethane	<5													
Isopropylbenzene	<5													
m,p-Xylenes	<10													
Methyl tert-butyl ether	<5	50	91.1%							54 - 170				
Methylene chloride	<5													
n-Butylbenzene	<5													
n-Propylbenzene	<5													
Naphthalene	<15													
o-Xylene	<5													
sec-Butylbenzene	<5													
Styrene	<5													
tert-Butylbenzene	<5													
Tetrachloroethene	<5													
Toluene	<5	50	109.7%							53 - 145				
trans-1,2-Dichloroethene	<5													

Approved by:

**Laboratory QC Report** 



**CLIENT:** Drash Consultants, LLC 1612077

Work Order:

116G1164 Sterling - Commerce LSI **Project:** 

	QC	SUN	ΜА	RY	REP	ORT
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			%R	EC			%R	EC		RPD	Low - High			F	RPD
Analyte	BLK	SPK value	LCS	LCSD	RPD %	RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limi
trans-1,3-Dichloropropene	<10														
Trichloroethene	<5	50	96.2%								61 - 133				
Trichlorofluoromethane	<5														
Vinyl chloride	<2														

Approved by:



# CHAIN OF CUSTODY RECORD

coc#:023558

4	
	yagibi.
A. S. C.	J.
74	

Иl	IST	RF	COMPI	FTFD	RY	CL	<b>IFNT</b>
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Alamo's Client's P.O. #: 116 E 1164	Turnaround time: Standard(7)□
Project Manager: Poul Becketh Phone #: 210-340-5004  Address: Fax #:	(in working days) RUSH: 1□ 2 □ 3-5Ⅵ Days (additional charges)
1045 Central Pkwy N., Ste. 103, San Antonio, TX Project Number: Project Number:	TRRP 13 Report: Yes ☐ No☐ (additional charges)
Project Location: Sampler Sprature: Sampler Sprature:	Analysis for Permit Compliance: Yes ☐ No <b>X</b> ☐ DMR Form Required: Yes ☐ No ☐

Main Office: 10526 Gulfdale San Antonio, Texas 78216 (210) 340-8121 • Fax (210) 340-8123

Branch: 2500 Montana Avenue El Paso, Texas 79903 (915) 599-2182

www.alamoanalytical.com admin@alamoanalytical.com

						<del></del>									
LAB ID# (Do not use)	Date	pling Lime	රි	Grab	Matrix	FIELD ID#	FIELD DESCRIPTION	No. of Containers	ANA	ALYSI A		y u		(Pr	REMARKS eservation, Size/Amount, Etc.)
161207701	12/16	1036		X	50	B-1(6.5)	·	5	X	X	X				ROT MTBE WY
- 62	j	1120		X	50	3-2(4-6		5	1		X	V.			7
- 02		1148		X	SO	3-2(8-10		5	×	X	X				RP+ MTBE
-0t		1431		X	50	3-3/2.5-5	Ċ	5	Х		X	X			
- 05		1436		X	50	3-317.5-		5	X	X	X				ROT MTBE
-06		1500		X	50	3-415-7		5	_X_		X	УŽ			
07		1506		X	50	3-4/121	5~15')	5	_X_	X	X				PAT ATBE
1 -08		1523		X	50	3-5(5-	7.5′)	2	_X	X	X				ROT MTBE
- O9		1535		×	50	3-5/12.	5-15')	5	_X		X	X			
V (6)	₩	1603		X	50	3-6(12	.5-15')	5	X_	X	X				Rot MIBE
Relinquished by: (Signature / Point Name)					Date	Time Received by: (Signature)	Headspace Properly Sealed				,			NA	
						Chilled ≤4°				o If No, Temp. 3					
Relinquished by: (Signature / Prin	t Name)			<del></del>		Date	Time Received by: (Signature)	Co	omment	s:					
Relinquished by: (Signature / Prin	t Name)	· · · · · ·		_	5	Date	Time Received (Signature)								

\*ALAMO ANALYTICAL LABORATORIES, LTD. 2500 Montana Avenue 10526 Gulfdale El Paso, TX – 79903 San Antonio, TX - 78216; Ph. (915) 599-2182 Ph. (210) 340-8121; Fax: (210) 340-8123 www.alamoanalytical.com Sample Log-In Checklist DATE: 12 1121 2016 TIME: INITIALS: PROJECT: W.O# 1. Is a Chain of Custody present? Yes Is a Chain of Custody properly completed? 2. Are custody seals present? Yes 3. If ves, are they intact? Yes Sample Shipping Container Are they on: or on Are all samples tagged or labeled? 4. Nb If yes, do the labels match the Chain of Custody? Nb 5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets) If not, describe below. Yes Are samples preserved properly? *If not*, describe below. 6. Are all samples within holding times on arrival? 7. If not, describe below. Condition of shipping container: Intact or \_\_\_\_\_ 8. Intact or 9. Condition of samples: Temperature of samples: Temp. (°C): 2 · Corrected Temp. (°C): Thermometer ID ( DT1 or L2 10. pH strip lot#: Samples out of pH range: 11. Delivery agent: Client UPS Fed-Ex Lone Star Alamo P/U \_\_\_ Other 12. Return to client Alamo Analytical Disposal 13. Sample disposal: **Comments:** (Reference checklist item number from above, or for comments on resolution below): Record of contacting client for resolution of sample discrepancies (first and retry contact) **Contacted How?** 

Name: Phone Fax Date: / / Time: Phone Fax Date: / / Time: