

May 14, 2018

Ms. Kasandra McKenzie  
Environmental Scientist  
Rhode Island Department of Environmental Management  
235 Promenade Street  
Providence, Rhode Island 02908-5767

Re: Quarterly Report – 1st Quarter 2018  
Former Portsmouth Landfill

Dear: Ms. McKenzie

This Quarterly Report is submitted on behalf of AP Enterprise, LLC (APE) regarding the Portsmouth Landfill (the Property) per the Beneficial Use Determination Approval (BUDA) which was issued by the Rhode Island Department of Environmental Management (RIDEM) on September 20, 2010, amended on March 11, 2011 and March 18, 2014 and most recently renewed on September 9, 2014. On September 20, 2015 the BUDA expired.

This report covers activities conducted during the period of January 1 to March 31, 2018.

### **Construction Activities**

Construction activities during this reporting period consisted of:

- The delivery and management of newly accepted final capping soil;
- The delivery and management of soils per Appendix A of the RIDEM Rules and Regulations for Composting and Solid Waste Management Facilities (the Appendix A Soils); and
- Erosion control activities.

Photos of the Property are attached as Appendix A.

### **Soil Accepted**

The attached table summarizes the soils delivered to the Property during this reporting period. The supporting laboratory analysis data reports for the soil reported on the table (with the exception of the Appendix A soils) is provided in Appendix B. Please note that the DW Clark

data package provided in this report is a revised and supplemented version of the data package submitted in the 3<sup>rd</sup> quarter of 2017.

**Complaints**

No complaints were received directly by APE during this reporting period.

**Schedule**

The APE project team estimates that 99% of the landfill now has at least six inches of final cap soil on it. The volume of capping soil required to complete the landfill cap is driven by a number of variables and is guided the elevations in the approved final site grading plan.

**Monitoring**

Enclosed is a copy of the Groundwater & Landfill Gas Monitoring Report, dated May 10, 2018 by ATC Group Services LLC. The next round of sampling is planned to take place in July 2018.

Please feel free to contact me should you have any questions regarding this matter.

Sincerely

TIM O'CONNOR & COMPANY, LLC



Timothy M. O'Connor, PE, LEED-AP  
Principal

**Former Portsmouth Landfill Soils Accepted  
1st Quarter 2018**

Delivery Dates	Source	Consultant	Quantity (tons)
1/26	Naval Education & Training Center Buildings 7 & A9; Burma Road; Newport, RI	Common Sense Environmental, Inc.	24
1/29 & 31; 2/2-28; 3/26 - 30	DW Clark Foundry; 692 North Bedford Street; East Bridgewater, MA	Mark A Germano, LSP	3,885.00
2/15 & 16	* Department of Public Works Reading, MA	Green Environmental	197.29
		Total	4,106.29

**Notes**

- \* - Indicates soils regulated per Appendix A of the RIDEM Rules and Regulations for Composting and Solid Waste Management Facilities

# Appendix A – Photographs



**Photo 1 – Along Mason Avenue Looking North**



**Photo 2 – Along Park Avenue Looking West**



**Photo 3 – Along Eastern Limit of Disturbance Looking North**



**Photo 4 – Along Eastern Limit of Disturbance Looking South**



**Photo 5 – Along Northwestern Limit of Disturbance Looking West**



**Photo 6 – Southwestern Portion of Site**

# **Appendix B – Analytical Data**

(data provided on disk)



Spent Foundry Sand (SFS) Analytical Results  
D.W. Clark Foundry  
East Bridgewater, MA

Parameter	RI Direct Exposure Criteria-Residential	SAMPLING LOCATION											
		SP-1	SP-2	SFS-COMP-1	FNDRY-DISP-1	DISP-7/10-1	DISP-7/10-2	DISP-7/10-3	DISP-7/10-4	DISP-7/10-5	Disp-Supp-1	Disp-Supp-2	Disp-Supp-3
Sampling Date		5/13/2016	5/13/2016	1/13/2017	5/19/2017	7/10/2017	7/10/2017	7/10/2017	7/10/2017	7/10/2017	2/5/2018	2/5/2018	2/5/2018
<b>SM21-22 2510B Modified (µmhos/cm)</b>													
SPECIFIC CONDUCTANCE		180	660		2300								
<b>SW-846 1010A (°C)</b>													
FLASHPOINT				93	>93								
<b>SW-846 6010C-D (mg/Kg dry) Metals Digestion</b>													
ARSENIC	7	ND (4.87)	ND (5)		ND (4.99)	ND (2.5)					1.12	1.15	0.82
BARIUM	5500				ND (4.99)						3.3	3.72	
CADMIUM	39	ND (0.974)	ND (1)		ND (0.998)								
CHROMIUM	390	ND (4.87)	ND (5)		71.5								
LEAD	150	5.91	ND (5)		ND (4.99)								
SELENIUM	390				9.58						ND (0.7)	ND (0.69)	
SILVER	200				ND (4.99)						ND (0.35)	ND (0.34)	
<b>SW-846 7471B (mg/Kg dry) Metals Digestion</b>													
MERCURY	23	ND (0.083)	ND (0.0847)		ND (0.856)								
<b>SW-846 6010C-D (mg/Kg dry) Metals Digestion</b>													
ANTIMONY	10						ND (2.5)	ND (2.3)	ND (2.6)	ND (2.4)			
BERYLLIUM	1.5						ND (0.25)	ND (0.23)	ND (0.26)	ND (0.24)			
COPPER	3,100						100	2.1	19	210			
NICKEL	1,000						7.0	5.0	16	130			
THALLIUM	5.5						ND (2.5)	ND (2.3)	ND (2.6)	ND (2.4)			
ZINC	6,000						5.4	ND (0.92)	20	24			
<b>SW-846 8082A (ug/Kg dry)</b>													
Total PCBs	10,000	ND	ND		ND								
<b>SW-846 8100 Modified (mg/Kg dry)</b>													
TPH	500	ND (50)	ND (51)		88.7								
<b>SW-846 8260C (ug/Kg dry)</b>													
NAPHTHALENE	54,000	ND (77.5)	ND (105)		713								
<b>SW-846 8270D (ug/Kg dry)</b>													
BENZO(G,H,I)PERYLENE	800	ND (100)	ND (102)	200									
INDENO(1,2,3-CD)PYRENE	900	ND (10)	ND (10.2)	188	ND (10.3)								
<b>SW-846 9014 (mg/Kg)</b>													
REACTIVE CYANIDE			ND (0.105)	ND (0.105)	ND (0.103)								
<b>SW-846 9030A (mg/Kg)</b>													
REACTIVE SULFIDE			ND (0.263)	ND (0.263)	ND (0.258)								
<b>SW-846 9045C (pH Units)</b>													
PH				9.07	9.15								

NOTES:  
1. ND = Not detected above the lab reporting limits shown in parenthesis. Individual detection limits available in laboratory reports.  
2. Blank cell = Not Tested for the submitted sample  
3. Shaded values exceed the relevant acceptance criteria  
4. Values detected above laboratory detection limits shown in bold

Spent Foundry Sand (SFS) Analytical Results  
D.W. Clark Foundry  
East Bridgewater, MA

Parameter	RI Direct Exposure Criteria-Residential	Disp-Supp				
		Disp-Supp-4	Disp-Supp-5	Disp-Supp-6	Disp-Supp-7	Disp-Supp-8
Sampling Date		2/5/2018	2/5/2018	2/5/2018	2/5/2018	2/5/2018
<i>SM21-22 2510B Modified (µmhos/cm)</i>						
SPECIFIC CONDUCTANCE						
<i>SW-846 1010A (°C)</i>						
FLASHPOINT						
<i>SW-846 6010C-D (mg/Kg dry) Metals Digestion</i>						
ARSENIC	7	ND (0.69)	<b>0.92</b>	ND (0.69)	<b>1.42</b>	<b>1.19</b>
BARIIUM	5500					
CADMIUM	39					
CHROMIUM	390					
LEAD	150					
SELENIUM	390					
SILVER	200					
<i>SW-846 7471B (mg/Kg dry) Metals Digestion</i>						
MERCURY	23					
<i>SW-846 6010C-D (mg/Kg dry) Metals Digestion</i>						
ANTIMONY	10					
BERYLLIUM	1.5					
COPPER	3,100					
NICKEL	1,000					
THALLIUM	5.5					
ZINC	6,000					
<i>SW-846 8082A (ug/Kg dry)</i>						
Total PCBs	10,000					
<i>SW-846 8100 Modified (mg/Kg dry)</i>						
TPH	500					
<i>SW-846 8260C (ug/Kg dry)</i>						
NAPHTHALENE	54,000					
<i>SW-846 8270D (ug/Kg dry)</i>						
BENZO(G,H,I)PERYLENE	800					
INDENO(1,2,3-CD)PYRENE	900					
<i>SW-846 9014 (mg/Kg)</i>						
REACTIVE CYANIDE						
<i>SW-846 9030A (mg/Kg)</i>						
REACTIVE SULFIDE						
<i>SW-846 9045C (pH Units)</i>						
PH						
NOTES:	1. ND = Not detected above the lab reporting limits shown in parenthesis. Individual detection limits					
	2. Blank cell = Not Tested for the submitted sample					
	3. Shaded values exceed the relevant acceptance criteria					
	4. Values detected above laboratory detection limits shown in bold					

ANALYTICAL REPORT



Tuesday, April 19, 2016

Jeff Burek  
DW Clark, Inc.  
692 North Bedford Street  
East Bridgewater, MA 02333

GeoLabs, Inc.  
45 Johnson Lane  
Braintree MA 02184  
Tele: 781 848 7844  
Fax: 781 848 7811

TEL: (508) 378-4014  
FAX: (508) 378-9710

Project:  
Location:

Order No.: 1603104

Dear Jeff Burek:

GeoLabs, Inc. received 2 sample(s) on 3/16/2016 for the analyses presented in the following report.

The laboratory results in this report relate only to samples submitted.

All data for associated QC met method or laboratory specifications, except when noted in the Case Narrative.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "David Mick".

David Mick  
Laboratory Director

For current certifications, please visit our website at [www.geolabs.com](http://www.geolabs.com)

Certifications:

CT (PH-0148) - MA (M-MA015) - NH (2508) - RI (LA000252)

Date: 19-Apr-16

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CLIENT: DW Clark, Inc.

Project:

Lab Order: 1603104

**CASE NARRATIVE**

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Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

The project was accompanied by satisfactory Chain of Custody documentation.

Analysis of Sample(s)

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure. No analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples.

SIGNATURE:



LAB DIRECTOR

PRINTED NAME: David Mick

DATE: 04/19/16

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 19-Apr-16

**CLIENT:** DW Clark, Inc.  
**Lab Order:** 1603104  
**Project:**  
**Lab ID:** 1603104-001

**Client Sample ID:** Sample 1  
**Collection Date:** 3/16/2016  
**Date Received:** 3/16/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**TCLP METALS BY ICP - SW6010B**

Analyst: **QS**

Prep Method: (SW3010A) Prep Date: 3/22/2016 4:04:55 PM

Arsenic	ND	0.500		mg/L	5	3/22/2016
Barium	ND	0.100		mg/L	5	3/22/2016
Cadmium	ND	0.0250		mg/L	5	3/22/2016
Chromium	ND	0.250		mg/L	5	3/22/2016
Lead	ND	0.250		mg/L	5	3/22/2016
Selenium	ND	0.250		mg/L	5	3/22/2016
Silver	ND	0.0500		mg/L	5	3/22/2016

**TCLP MERCURY - E245.1**

Analyst: **EC**

Prep Method: (SW7470A/E245.1) Prep Date: 3/24/2016 5:13:53 PM

Mercury	ND	0.00200		mg/L	1	3/24/2016
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**TCLP SEMIVOLATILE ORGANICS - SW8270C**

Analyst: **Admir**

Prep Method: (SW3510) Prep Date: 4/15/2016 12:12:35 PM

1,4-Dichlorobenzene	ND	100	H	µg/L	1	4/15/2016 8:58:00 PM
2,4,5-Trichlorophenol	ND	75.0	H	µg/L	1	4/15/2016 8:58:00 PM
2,4,6-Trichlorophenol	ND	50.0	H	µg/L	1	4/15/2016 8:58:00 PM
2,4-Dinitrotoluene	ND	50.0	H	µg/L	1	4/15/2016 8:58:00 PM
2-Methylphenol	ND	100	H	µg/L	1	4/15/2016 8:58:00 PM
3-Methylphenol/4-Methylphenol	ND	150	H	µg/L	1	4/15/2016 8:58:00 PM
Hexachlorobenzene	ND	100	H	µg/L	1	4/15/2016 8:58:00 PM
Hexachlorobutadiene	ND	50.0	H	µg/L	1	4/15/2016 8:58:00 PM
Hexachloroethane	ND	200	H	µg/L	1	4/15/2016 8:58:00 PM
Nitrobenzene	ND	375	H	µg/L	1	4/15/2016 8:58:00 PM
Pentachlorophenol	ND	100	H	µg/L	1	4/15/2016 8:58:00 PM
Pyridine	ND	125	H	µg/L	1	4/15/2016 8:58:00 PM
Surr: 2,4,6-Tribromophenol	94.8	15-110	H	%REC	1	4/15/2016 8:58:00 PM
Surr: 2-Fluorobiphenyl	54.0	30-130	H	%REC	1	4/15/2016 8:58:00 PM
Surr: 2-Fluorophenol	43.3	15-110	H	%REC	1	4/15/2016 8:58:00 PM
Surr: Nitrobenzene-d5	71.9	30-130	H	%REC	1	4/15/2016 8:58:00 PM
Surr: Phenol-d6	34.8	15-110	H	%REC	1	4/15/2016 8:58:00 PM
Surr: Terphenyl-d14	80.6	30-130	H	%REC	1	4/15/2016 8:58:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 19-Apr-16

**CLIENT:** DW Clark, Inc.  
**Lab Order:** 1603104  
**Project:**  
**Lab ID:** 1603104-002

**Client Sample ID:** Sample 2  
**Collection Date:** 3/16/2016  
**Date Received:** 3/16/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**TCLP METALS BY ICP - SW6010B**

Analyst: **QS**

Prep Method: (SW3010A)                      Prep Date: 3/22/2016 4:04:55 PM

Arsenic	ND	0.500		mg/L	5	3/22/2016
Barium	ND	0.100		mg/L	5	3/22/2016
Cadmium	ND	0.0250		mg/L	5	3/22/2016
Chromium	ND	0.250		mg/L	5	3/22/2016
Lead	ND	0.250		mg/L	5	3/22/2016
Selenium	ND	0.250		mg/L	5	3/22/2016
Silver	ND	0.0500		mg/L	5	3/22/2016

**TCLP MERCURY - E245.1**

Analyst: **EC**

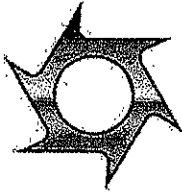
Prep Method: (SW7470A/E245.1)                      Prep Date: 3/24/2016 5:13:53 PM

Mercury	ND	0.00200		mg/L	1	3/24/2016
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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811



D.W. Clark, Inc.

1603104

Metalcasters since 1902  
ISO 9001:2008

692 North Bedford Street, East Bridgewater, MA 02333  
Phone: (508) 378-4014 Fax: (508) 378-9710

\*\*\* Purchase Order \*\*\*

VENDOR: 104259

GEOLABS INC.  
45 JOHNSON LANE  
BRAINTREE, MA 02184  
U.S.A.

Order#: P10821

Order Date: 03/16/16

Page#: 1

Fax: 781 848 7811 / Phone: 800 298 7060

SHIP TO: 692 North Bedford Street  
East Bridgewater, MA, 02333

BILL TO: P.O. Box 448  
East Bridgewater, MA, 02333

Attention: DAVE KAHLER

Requested By: JEFF

Payment Terms	Freight Terms	Carrier
NET 30	Prepaid - DWC	UPS

Line	Order Qty	Part Number	Due Date	Taxable?	Price Um	Extended Price	
01	2.00	M02572	03/25/16		EA	.00	
		OUTSIDE TESTING - SAND TESTING					
		TEST FOR TCLP RCRA 8 METALS					
		FAX RESULTS TO 508 378 9710 ATTN. JEFF,					
		ALSO MAIL					
		SAMPLES FOR TCLP					
		SAMPLE 1 - SPENT FOUNDRY SAND					3104 - 001
		SAMPLE 2 - 50/50 MIX WITH CRUSHED					3104 - 002
		AGGREGATE					
		PURCHASE ORDER TOTAL					.00

**ANALYTICAL REPORT**



Friday, June 03, 2016

Mark Germano  
Germano  
15 Pinehurst Rd.  
Marshfield, MA 02050

GeoLabs, Inc.  
45 Johnson Lane  
Braintree MA 02184  
Tele: 781 848 7844  
Fax: 781 848 7811

TEL: (339) 793-3528

FAX:

Project: DW Clark, Inc.  
Location: 692 N. Bedford St, E. Bridgewater MA

Order No.: 1605082

Dear Mark Germano:

GeoLabs, Inc. received 2 sample(s) on 5/13/2016 for the analyses presented in the following report.

The laboratory results in this report relate only to samples submitted. All data for associated QC met method or laboratory specifications, except where noted in the Case Narrative.

Analytical methods and results meet requirements of 310CMR 40.1056(J) as per MADEP Compendium of Analytical Methods (CAM).

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

Sincerely,



David Mick  
Laboratory Director

For current certifications, please visit our website at [www.geolabs.com](http://www.geolabs.com)

**Certifications:**

CT (PH-0148) - MA (M-MA015) - NH (2508) - RI (LA000252)



**MassDEP Analytical Protocol Certification Form**

Laboratory Name: GeoLabs, Inc. Project #:  
 Project Location: D.W. Clark, Inc. RTN:

This form provides certification for the following data set: 1605082 (001-002)

Matrices:  Groundwater/Surface Water  Soil/Sediment  Drinking Water  Air  Other

**CAM Protocol** (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B <input checked="" type="checkbox"/>	MassDEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	MassDEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input checked="" type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	MassDEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input checked="" type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	

**Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status**

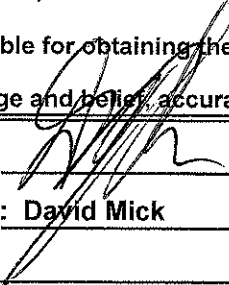
<b>A</b>	were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>D</b>	Does the laboratory report comply with all reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>E</b>	VPH, EPH, APH and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications.)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Responses to Questions G, H, and I below are required for "Presumptive Certainty" status**

<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Data User Note:</b> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056 (2)(k) and WSC-07-350.		
<b>H</b>	Were all QC performance standards as specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:  Position: Laboratory Director  
 Printed Name: David Mick Date: June 3, 2016

Date: 03-Jun-16

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CLIENT: Germano  
Project: DW Clark, Inc.  
Lab Order: 1605082

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**CASE NARRATIVE**

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Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

The project was accompanied by satisfactory Chain of Custody documentation.

Analysis of Sample(s)

Select metals reported via method 6010C, per client request.

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure. The following analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples:

See QC to review spike recoveries outside of recovery ranges.

SIGNATURE:

LAB DIRECTOR

PRINTED NAME: David Mick

DATE: 06/03/16

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-001

**Client Sample ID:** SP-1  
**Collection Date:** 5/13/2016 10:30:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**POLYCHLORINATED BIPHENYLS - SW8082A**

Analyst: DM

Prep Method: (SW3545A) Prep Date: 5/20/2016 12:37:37 PM

Aroclor 1016	ND	50.0		µg/Kg	1	5/25/2016
Aroclor 1221	ND	50.0		µg/Kg	1	5/25/2016
Aroclor 1232	ND	50.0		µg/Kg	1	5/25/2016
Aroclor 1242	ND	50.0		µg/Kg	1	5/25/2016
Aroclor 1248	ND	50.0		µg/Kg	1	5/25/2016
Aroclor 1254	ND	50.0		µg/Kg	1	5/25/2016
Aroclor 1260	ND	50.0		µg/Kg	1	5/25/2016
Surr: Decachlorobiphenyl Sig 1	35.0	30-150		%REC	1	5/25/2016
Surr: Decachlorobiphenyl Sig 2	43.0	30-150		%REC	1	5/25/2016
Surr: Tetrachloro-m-Xylene Sig 1	86.0	30-150		%REC	1	5/25/2016
Surr: Tetrachloro-m-Xylene Sig 2	101	30-150		%REC	1	5/25/2016

**TOTAL PETROLEUM HYDROCARBONS - 8100M**

Analyst: Admir

Prep Method: (8100M) Prep Date: 5/20/2016 12:42:01 PM

Total Petroleum Hydrocarbons	ND	50.0		mg/Kg	1	5/28/2016
Surr: o-Terphenyl	108	40-140		%REC	1	5/28/2016

**TOTAL METALS BY ICP - SW6010C**

Analyst: QS

Prep Method: (SW3050B) Prep Date: 5/17/2016 12:53:09 PM

Arsenic	ND	4.87		mg/Kg	1	5/17/2016
Cadmium	ND	0.974		mg/Kg	1	5/17/2016
Chromium	ND	4.87		mg/Kg	1	5/17/2016
Lead	5.91	4.87		mg/Kg	1	5/17/2016

**MERCURY - SW7471B**

Analyst: EC

Prep Method: (SW7471B) Prep Date: 5/19/2016 3:37:36 PM

Mercury	ND	0.0830		mg/Kg	1	5/19/2016
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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-001

**Client Sample ID:** SP-1  
**Collection Date:** 5/13/2016 10:30:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANICS - SW8270D**

Analyst: Admir

Prep Method: (SW3545A)

Prep Date: 5/19/2016 10:32:35 AM

1,1-Biphenyl	ND	10.0		µg/Kg	1	5/19/2016 1:45:00 PM
1,2,4-Trichlorobenzene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
1,2-Dichlorobenzene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
1,2-Dinitrobenzene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
1,3-Dichlorobenzene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
1,3-Dinitrobenzene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
1,4-Dichlorobenzene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
1,4-Dinitrobenzene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2,3,4,6-Tetrachlorophenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2,4,5-Trichlorophenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2,4,6-Trichlorophenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2,4-Dichlorophenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2,4-Dimethylphenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2,4-Dinitrophenol	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM
2,4-Dinitrotoluene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2,6-Dinitrotoluene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2-Chloronaphthalene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2-Chlorophenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2-Methylnaphthalene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2-Methylphenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2-Nitroaniline	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
2-Nitrophenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
3,3'-Dichlorobenzidine	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
3-Methylphenol/4-Methylphenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
3-Nitroaniline	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
4,6-Dinitro-2-Methylphenol	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM
4-Bromophenyl Phenyl Ether	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
4-Chloro-3-Methylphenol	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM
4-Chloroaniline	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
4-Chlorophenyl Phenyl Ether	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
4-Nitroaniline	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
4-Nitrophenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Acenaphthene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Acenaphthylene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Acetophenone	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Aniline	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-001

**Client Sample ID:** SP-1  
**Collection Date:** 5/13/2016 10:30:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANICS - SW8270D** Analyst: Admir

Prep Method: (SW3545A)                      Prep Date: 5/19/2016 10:32:35 AM

Anthracene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Azobenzene	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM
Benz(a)Anthracene	ND	10.0		µg/Kg	1	5/19/2016 1:45:00 PM
Benzo(a)Pyrene	ND	10.0		µg/Kg	1	5/19/2016 1:45:00 PM
Benzo(b)Fluoranthene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Benzo(g,h,i)Perylene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Benzo(k)Fluoranthene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Benzyl Alcohol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Bis(2-Chloroethoxy)Methane	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Bis(2-Chloroethyl)Ether	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Bis(2-Chloroisopropyl)Ether	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Bis(2-Ethylhexyl)Phthalate	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Butyl Benzyl Phthalate	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Carbazole	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Chrysene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Dibenz(a,h)Anthracene	ND	10.0		µg/Kg	1	5/19/2016 1:45:00 PM
Dibenzofuran	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Diethyl Phthalate	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Dimethyl Phthalate	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Di-n-Butyl Phthalate	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM
Di-n-Octyl Phthalate	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Fluoranthene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Fluorene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Hexachlorobenzene	ND	10.0		µg/Kg	1	5/19/2016 1:45:00 PM
Hexachlorobutadiene	ND	10.0		µg/Kg	1	5/19/2016 1:45:00 PM
Hexachloroethane	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Indeno(1,2,3-cd)Pyrene	ND	10.0		µg/Kg	1	5/19/2016 1:45:00 PM
Isophorone	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Naphthalene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Nitrobenzene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
N-Nitrosodimethylamine	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM
N-Nitrosodi-n-Propylamine	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
N-Nitrosodiphenylamine	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM
Pentachlorophenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Phenanthrene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Phenol	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-001

**Client Sample ID:** SP-1  
**Collection Date:** 5/13/2016 10:30:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANICS - SW8270D**

Analyst: **Admir**

Prep Method: (SW3545A)                      Prep Date: 5/19/2016 10:32:35 AM

Pyrene	ND	100		µg/Kg	1	5/19/2016 1:45:00 PM
Pyridine	ND	500		µg/Kg	1	5/19/2016 1:45:00 PM
Surr: 2,4,6-Tribromophenol	48.1	30-130		%REC	1	5/19/2016 1:45:00 PM
Surr: 2-Fluorobiphenyl	42.7	30-130		%REC	1	5/19/2016 1:45:00 PM
Surr: 2-Fluorophenol	54.9	30-130		%REC	1	5/19/2016 1:45:00 PM
Surr: Nitrobenzene-d5	51.5	30-130		%REC	1	5/19/2016 1:45:00 PM
Surr: Phenol-d6	57.6	30-130		%REC	1	5/19/2016 1:45:00 PM
Surr: Terphenyl-d14	55.5	30-130		%REC	1	5/19/2016 1:45:00 PM

**VOLATILE ORGANIC COMPOUNDS - 8260B**

Analyst: **Admir**

Prep Method:                                      Prep Date:

1,1,1,2-Tetrachloroethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,1,1-Trichloroethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,1,2,2-Tetrachloroethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,1,2-Trichloroethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,1-Dichloroethane	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,1-Dichloroethene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,1-Dichloropropene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,2,3-Trichlorobenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,2,4-Trichlorobenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,2,4-Trimethylbenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,2-Dibromo-3-Chloropropane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,2-Dibromoethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,2-Dichlorobenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,2-Dichloroethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,2-Dichloropropane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,3,5-Trimethylbenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,3-Dichlorobenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,3-Dichloropropane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,4-Dichlorobenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
1,4-Dioxane	ND	6200		µg/Kg	0.62	5/18/2016 5:10:00 PM
2,2-Dichloropropane	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
2-Butanone	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
2-Chloroethyl Vinyl Ether	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-001

**Client Sample ID:** SP-1  
**Collection Date:** 5/13/2016 10:30:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS - 8260B**

Analyst: Admir

Prep Method:	Prep Date:					
2-Chlorotoluene	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
2-Hexanone	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
2-Methoxy-2-Methylbutane (TAME)	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
4-Chlorotoluene	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
4-Isopropyltoluene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
4-Methyl-2-Pentanone	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Acetone	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
Acrylonitrile	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Benzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Bromobenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Bromochloromethane	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
Bromodichloromethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Bromoform	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Bromomethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Carbon Disulfide	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Carbon Tetrachloride	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Chlorobenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Chloroethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Chloroform	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Chloromethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
cis-1,2-Dichloroethene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
cis-1,3-Dichloropropene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Dibromochloromethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Dibromomethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Dichlorodifluoromethane	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Diethyl Ether	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Diisopropyl Ether	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Ethylbenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Ethyl-t-Butyl Ether	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Hexachlorobutadiene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Isopropylbenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Methyl Tert-Butyl Ether	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Methylene Chloride	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Naphthalene	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
n-Butylbenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
n-Propylbenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-001

**Client Sample ID:** SP-1  
**Collection Date:** 5/13/2016 10:30:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS - 8260B** Analyst: Admir

Prep Method:	Prep Date:					
sec-Butylbenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Styrene	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
tert-Butylbenzene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Tetrachloroethene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Tetrahydrofuran	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
Toluene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
trans-1,2-Dichloroethene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
trans-1,3-Dichloropropene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Trichloroethene	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Trichlorofluoromethane	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
Vinyl Chloride	ND	31.0		µg/Kg	0.62	5/18/2016 5:10:00 PM
Xylenes, Total	ND	77.5		µg/Kg	0.62	5/18/2016 5:10:00 PM
Surr: 1,2-Dichloroethane-d4	111	70-130		%REC	0.62	5/18/2016 5:10:00 PM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	0.62	5/18/2016 5:10:00 PM
Surr: Dibromofluoromethane	105	70-130		%REC	0.62	5/18/2016 5:10:00 PM
Surr: Toluene-d8	76.8	70-130		%REC	0.62	5/18/2016 5:10:00 PM

**SPECIFIC CONDUCTANCE - E120.1** Analyst: RP

Prep Method:	Prep Date:					
Specific Conductance	180	2.00		µmhos/cm	1	5/17/2016

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits



**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-002

**Client Sample ID:** SP-2  
**Collection Date:** 5/13/2016 10:40:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**POLYCHLORINATED BIPHENYLS - SW8082A**

Analyst: DM

Prep Method: (SW3545A)                      Prep Date: 5/20/2016 12:37:37 PM

Aroclor 1016	ND	51.0		µg/Kg-dry	1	5/25/2016
Aroclor 1221	ND	51.0		µg/Kg-dry	1	5/25/2016
Aroclor 1232	ND	51.0		µg/Kg-dry	1	5/25/2016
Aroclor 1242	ND	51.0		µg/Kg-dry	1	5/25/2016
Aroclor 1248	ND	51.0		µg/Kg-dry	1	5/25/2016
Aroclor 1254	ND	51.0		µg/Kg-dry	1	5/25/2016
Aroclor 1260	ND	51.0		µg/Kg-dry	1	5/25/2016
Surr: Decachlorobiphenyl Sig 1	31.0	30-150		%REC	1	5/25/2016
Surr: Decachlorobiphenyl Sig 2	40.0	30-150		%REC	1	5/25/2016
Surr: Tetrachloro-m-Xylene Sig 1	78.0	30-150		%REC	1	5/25/2016
Surr: Tetrachloro-m-Xylene Sig 2	88.0	30-150		%REC	1	5/25/2016

**TOTAL PETROLEUM HYDROCARBONS - 8100M**

Analyst: Admir

Prep Method: (8100M)                      Prep Date: 5/20/2016 12:42:01 PM

Total Petroleum Hydrocarbons	ND	51.0		mg/Kg-dry	1	5/28/2016
Surr: o-Terphenyl	87.2	40-140		%REC	1	5/28/2016

**TOTAL METALS BY ICP - SW6010C**

Analyst: QS

Prep Method: (SW3050B)                      Prep Date: 5/17/2016 12:53:09 PM

Arsenic	ND	5.00		mg/Kg-dry	1	5/17/2016
Cadmium	ND	1.00		mg/Kg-dry	1	5/17/2016
Chromium	ND	5.00		mg/Kg-dry	1	5/17/2016
Lead	ND	5.00		mg/Kg-dry	1	5/17/2016

**MERCURY - SW7471B**

Analyst: EC

Prep Method: (SW7471B)                      Prep Date: 5/19/2016 3:37:36 PM

Mercury	ND	0.0847		mg/Kg-dry	1	5/19/2016
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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-002

**Client Sample ID:** SP-2  
**Collection Date:** 5/13/2016 10:40:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANICS - SW8270D**

Analyst: Admir

Prep Method: (SW3545A)

Prep Date: 5/19/2016 10:32:35 AM

1,1-Biphenyl	ND	10.2		µg/Kg-dry	1	5/19/2016 2:23:00 PM
1,2,4-Trichlorobenzene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
1,2-Dichlorobenzene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
1,2-Dinitrobenzene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
1,3-Dichlorobenzene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
1,3-Dinitrobenzene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
1,4-Dichlorobenzene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
1,4-Dinitrobenzene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2,3,4,6-Tetrachlorophenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2,4,5-Trichlorophenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2,4,6-Trichlorophenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2,4-Dichlorophenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2,4-Dimethylphenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2,4-Dinitrophenol	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2,4-Dinitrotoluene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2,6-Dinitrotoluene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2-Chloronaphthalene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2-Chlorophenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2-Methylnaphthalene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2-Methylphenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2-Nitroaniline	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
2-Nitrophenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
3,3'-Dichlorobenzidine	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
3-Methylphenol/4-Methylphenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
3-Nitroaniline	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
4,6-Dinitro-2-Methylphenol	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM
4-Bromophenyl Phenyl Ether	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
4-Chloro-3-Methylphenol	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM
4-Chloroaniline	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
4-Chlorophenyl Phenyl Ether	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
4-Nitroaniline	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
4-Nitrophenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Acenaphthene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Acenaphthylene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Acetophenone	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Aniline	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-002

**Client Sample ID:** SP-2  
**Collection Date:** 5/13/2016 10:40:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANICS - SW8270D** Analyst: Admir

Prep Method: (SW3545A)                      Prep Date: 5/19/2016 10:32:35 AM

Anthracene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Azobenzene	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Benz(a)Anthracene	ND	10.2		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Benzo(a)Pyrene	ND	10.2		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Benzo(b)Fluoranthene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Benzo(g,h,i)Perylene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Benzo(k)Fluoranthene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Benzyl Alcohol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Bis(2-Chloroethoxy)Methane	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Bis(2-Chloroethyl)Ether	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Bis(2-Chloroisopropyl)Ether	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Bis(2-Ethylhexyl)Phthalate	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Butyl Benzyl Phthalate	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Carbazole	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Chrysene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Dibenz(a,h)Anthracene	ND	10.2		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Dibenzofuran	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Diethyl Phthalate	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Dimethyl Phthalate	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Di-n-Butyl Phthalate	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Di-n-Octyl Phthalate	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Fluoranthene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Fluorene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Hexachlorobenzene	ND	10.2		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Hexachlorobutadiene	ND	10.2		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Hexachloroethane	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Indeno(1,2,3-cd)Pyrene	ND	10.2		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Isophorone	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Naphthalene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Nitrobenzene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
N-Nitrosodimethylamine	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM
N-Nitrosodi-n-Propylamine	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
N-Nitrosodiphenylamine	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Pentachlorophenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Phenanthrene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Phenol	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-002

**Client Sample ID:** SP-2  
**Collection Date:** 5/13/2016 10:40:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANICS - SW8270D**

Analyst: **Admir**

Prep Method: (SW3545A)                      Prep Date: 5/19/2016 10:32:35 AM

Pyrene	ND	102		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Pyridine	ND	510		µg/Kg-dry	1	5/19/2016 2:23:00 PM
Surr: 2,4,6-Tribromophenol	63.7	30-130		%REC	1	5/19/2016 2:23:00 PM
Surr: 2-Fluorobiphenyl	56.8	30-130		%REC	1	5/19/2016 2:23:00 PM
Surr: 2-Fluorophenol	66.5	30-130		%REC	1	5/19/2016 2:23:00 PM
Surr: Nitrobenzene-d5	62.1	30-130		%REC	1	5/19/2016 2:23:00 PM
Surr: Phenol-d6	70.7	30-130		%REC	1	5/19/2016 2:23:00 PM
Surr: Terphenyl-d14	75.7	30-130		%REC	1	5/19/2016 2:23:00 PM

**VOLATILE ORGANIC COMPOUNDS - 8260B**

Analyst: **Admir**

Prep Method:                                      Prep Date:

1,1,1,2-Tetrachloroethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,1,1-Trichloroethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,1,2,2-Tetrachloroethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,1,2-Trichloroethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,1-Dichloroethane	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,1-Dichloroethene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,1-Dichloropropene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,2,3-Trichlorobenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,2,4-Trichlorobenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,2,4-Trimethylbenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,2-Dibromo-3-Chloropropane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,2-Dibromoethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,2-Dichlorobenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,2-Dichloroethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,2-Dichloropropane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,3,5-Trimethylbenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,3-Dichlorobenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,3-Dichloropropane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,4-Dichlorobenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
1,4-Dioxane	ND	8370		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
2,2-Dichloropropane	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
2-Butanone	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
2-Chloroethyl Vinyl Ether	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-002

**Client Sample ID:** SP-2  
**Collection Date:** 5/13/2016 10:40:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS - 8260B** Analyst: Admir

Prep Method:	Prep Date:					
2-Chlorotoluene	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
2-Hexanone	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
2-Methoxy-2-Methylbutane (TAME)	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
4-Chlorotoluene	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
4-Isopropyltoluene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
4-Methyl-2-Pentanone	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Acetone	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Acrylonitrile	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Benzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Bromobenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Bromochloromethane	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Bromodichloromethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Bromoform	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Bromomethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Carbon Disulfide	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Carbon Tetrachloride	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Chlorobenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Chloroethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Chloroform	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Chloromethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
cis-1,2-Dichloroethene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
cis-1,3-Dichloropropene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Dibromochloromethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Dibromomethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Dichlorodifluoromethane	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Diethyl Ether	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Diisopropyl Ether	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Ethylbenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Ethyl-t-Butyl Ether	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Hexachlorobutadiene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Isopropylbenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Methyl Tert-Butyl Ether	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Methylene Chloride	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Naphthalene	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
n-Butylbenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
n-Propylbenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

**ANALYTICAL REPORT**

**Reported Date:** 03-Jun-16

**CLIENT:** Germano  
**Lab Order:** 1605082  
**Project:** DW Clark, Inc.  
**Lab ID:** 1605082-002

**Client Sample ID:** SP-2  
**Collection Date:** 5/13/2016 10:40:00 AM  
**Date Received:** 5/13/2016  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS - 8260B**

Analyst: Admir

Prep Method:	Prep Date:					
sec-Butylbenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Styrene	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
tert-Butylbenzene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Tetrachloroethene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Tetrahydrofuran	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Toluene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
trans-1,2-Dichloroethene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
trans-1,3-Dichloropropene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Trichloroethene	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Trichlorofluoromethane	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Vinyl Chloride	ND	41.8		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Xylenes, Total	ND	105		µg/Kg-dry	0.82	5/18/2016 5:46:00 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	0.82	5/18/2016 5:46:00 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	0.82	5/18/2016 5:46:00 PM
Surr: Dibromofluoromethane	98.3	70-130		%REC	0.82	5/18/2016 5:46:00 PM
Surr: Toluene-d8	78.9	70-130		%REC	0.82	5/18/2016 5:46:00 PM

**SPECIFIC CONDUCTANCE - E120.1**

Analyst: RP

Prep Method:	Prep Date:					
Specific Conductance	660	2.00		µmhos/cm	1	5/17/2016

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

# ANALYTICAL QC SUMMARY REPORT

Date: 03-Jun-16

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode: 6010C\_S**

Sample ID: MBLK-26510	SampType: MBLK	TestCode: 6010C_S	Units: mg/Kg	Prep Date: 5/17/2016	RunNo: 61027						
Client ID: ZZZZ	Batch ID: 26510	TestNo: SW6010C	(SW3050B)	Analysis Date: 5/17/2016	SeqNo: 670120						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	5.00									
Cadmium	ND	1.00									
Chromium	ND	5.00									
Lead	ND	5.00									

Sample ID: LCS-26510	SampType: LCS	TestCode: 6010C_S	Units: mg/Kg	Prep Date: 5/17/2016	RunNo: 61027						
Client ID: ZZZZ	Batch ID: 26510	TestNo: SW6010C	(SW3050B)	Analysis Date: 5/17/2016	SeqNo: 670118						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	118.3	5.00	133.3	0	88.7	80	120				
Cadmium	121.8	1.00	133.3	0	91.4	80	120				
Chromium	117.9	5.00	133.3	0	88.5	80	120				
Lead	122.2	5.00	133.3	0	91.7	80	120				

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**  
 45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8082A\_S\_ASE

Sample ID:	MB-26522	SampType:	MBLK	TestCode:	8082A_S_AS	Units:	µg/Kg	Prep Date:	5/20/2016	RunNo:	61168
Client ID:	ZZZZZ	Batch ID:	26522	TestNo:	SW8082	(SW3545A)		Analysis Date:	5/25/2016	SeqNo:	671243
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Atroclor 1016	NID	50.0									
Atroclor 1221	NID	50.0									
Atroclor 1232	NID	50.0									
Atroclor 1242	NID	50.0									
Atroclor 1248	NID	50.0									
Atroclor 1254	NID	50.0									
Atroclor 1260	NID	50.0									
Surr: Decachlorobiphenyl Sig 1	30.00	0	100	0	30.0	30	150				
Surr: Decachlorobiphenyl Sig 2	36.00	0	100	0	36.0	30	150				
Surr: Tetrachloro-m-Xylene Sig 1	74.00	0	100	0	74.0	30	150				
Surr: Tetrachloro-m-Xylene Sig 2	78.00	0	100	0	78.0	30	150				

Sample ID:	LCS-26522	SampType:	LCS	TestCode:	8082A_S_AS	Units:	µg/Kg	Prep Date:	5/20/2016	RunNo:	61168
Client ID:	ZZZZZ	Batch ID:	26522	TestNo:	SW8082	(SW3545A)		Analysis Date:	5/25/2016	SeqNo:	671241
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Atroclor 1016	125.4	50.0	100	0	125	40	140				
Atroclor 1260	118.2	50.0	100	0	118	40	140				
Surr: Decachlorobiphenyl Sig 1	37.00	0	100	0	37.0	30	150				
Surr: Decachlorobiphenyl Sig 2	45.00	0	100	0	45.0	30	150				
Surr: Tetrachloro-m-Xylene Sig 1	82.00	0	100	0	82.0	30	150				
Surr: Tetrachloro-m-Xylene Sig 2	87.00	0	100	0	87.0	30	150				

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811



**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8260B\_S\_MCP

**Sample ID:** MBLK      **Samp Type:** mbik      **TestCode:** 8260B\_S\_MC      **Units:** µg/Kg      **Prep Date:**      **RunNo:** 61048  
**Client ID:** ZZZZ      **Batch ID:** R61048      **TestNo:** SW8260B      **Analysis Date:** 5/18/2016      **SeqNo:** 670215

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	50.0									
1,1,1-Trichloroethane	ND	50.0									
1,1,2,2-Tetrachloroethane	ND	50.0									
1,1,2-Trichloroethane	ND	50.0									
1,1-Dichloroethane	ND	125									
1,1-Dichloroethene	ND	50.0									
1,1-Dichloropropene	ND	50.0									
1,2,3-Trichlorobenzene	ND	50.0									
1,2,4-Trichlorobenzene	ND	50.0									
1,2,4-Trimethylbenzene	ND	50.0									
1,2-Dibromo-3-Chloropropane	ND	50.0									
1,2-Dibromoethane	ND	50.0									
1,2-Dichlorobenzene	ND	50.0									
1,2-Dichloroethane	ND	50.0									
1,2-Dichloropropane	ND	50.0									
1,3,5-Trimethylbenzene	ND	50.0									
1,3-Dichlorobenzene	ND	50.0									
1,3-Dichloropropane	ND	50.0									
1,4-Dichlorobenzene	ND	50.0									
1,4-Dioxane	ND	10000									
2,2-Dichloropropane	ND	125									
2-Butanone	ND	125									
2-Chloroethyl Vinyl Ether	ND	50.0									
2-Chlorotoluene	ND	125									
2-Hexanone	ND	125									
2-Methoxy-2-Methylbutane (TAME)	ND	50.0									
4-Chlorotoluene	ND	125									
4-Isopropyltoluene	ND	50.0									

**Qualifiers:** BRL Below Reporting Limit      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
 J Analyte detected below quantitation limits      ND Not Detected at the Reporting Limit      R RPD outside recovery limits  
 RL Reporting Limit      S Spike Recovery outside recovery limits

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8260B\_S\_MCP

Sample ID: MBLK	Samp Type: mblk	TestCode: 8260B_S_MC	Units: µg/Kg	Prep Date:	RunNo: 61048						
Client ID: ZZZZ	Batch ID: R61048	TestNo: SW8260B		Analysis Date: 5/18/2016	SeqNo: 670215						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Methyl-2-Pentanone	ND	50.0									
Acetone	ND	125									
Acrylonitrile	ND	50.0									
Benzene	ND	50.0									
Bromobenzene	ND	50.0									
Bromochloromethane	ND	125									
Bromodichloromethane	ND	50.0									
Bromoform	ND	50.0									
Bromomethane	ND	50.0									
Carbon Disulfide	ND	50.0									
Carbon Tetrachloride	ND	50.0									
Chlorobenzene	ND	50.0									
Chloroethane	ND	50.0									
Chloroform	ND	50.0									
Chloromethane	ND	50.0									
cis-1,2-Dichloroethene	ND	50.0									
cis-1,3-Dichloropropene	ND	50.0									
Dibromochloromethane	ND	50.0									
Dibromomethane	ND	50.0									
Dichlorodifluoromethane	ND	50.0									
Diethyl Ether	ND	50.0									
Diisopropyl Ether	ND	50.0									
Ethylbenzene	ND	50.0									
Ethyl-t-Butyl Ether	ND	50.0									
Hexachlorobutadiene	ND	50.0									
Isopropylbenzene	ND	50.0									
Methyl Tert-Butyl Ether	ND	50.0									
Methylene Chloride	ND	50.0									

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

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**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8260B\_S\_MCP

**Sample ID:** MBLK      **SampType:** mbLK      **TestCode:** 8260B\_S\_MC      **Units:** µg/Kg      **RunNo:** 61048  
**Client ID:** ZZZZ      **Batch ID:** R61048      **TestNo:** SW8260B      **Prep Date:**      **SeqNo:** 670215  
**Analysis Date:** 5/18/2016

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	125									
n-Butylbenzene	ND	50.0									
n-Propylbenzene	ND	50.0									
sec-Butylbenzene	ND	50.0									
Styrene	ND	125									
tert-Butylbenzene	ND	50.0									
Tetrachloroethene	ND	50.0									
Tetrahydrofuran	ND	125									
Toluene	ND	50.0									
trans-1,2-Dichloroethene	ND	50.0									
trans-1,3-Dichloropropene	ND	50.0									
Trichloroethene	ND	50.0									
Trichlorofluoromethane	ND	125									
Vinyl Chloride	ND	50.0									
Xylenes, Total	ND	125									
Surr: 1,2-Dichloroethane-d4	824.0	0	750	0	110	70	130				
Surr: 4-Bromofluorobenzene	741.2	0	750	0	98.8	70	130				
Surr: Dibromofluoromethane	675.8	0	750	0	90.1	70	130				
Surr: Toluene-d8	589.2	0	750	0	78.6	70	130				

**Sample ID:** LCS      **SampType:** lcs      **TestCode:** 8260B\_S\_MC      **Units:** µg/Kg      **RunNo:** 61048  
**Client ID:** ZZZZ      **Batch ID:** R61048      **TestNo:** SW8260B      **Prep Date:**      **SeqNo:** 670213  
**Analysis Date:** 5/18/2016

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	1155	50.0	1250	0	92.4	70	130				
1,1,1-Trichloroethane	1114	50.0	1250	0	89.1	70	130				
1,1,2,2-Tetrachloroethane	1227	50.0	1250	0	98.2	70	130				

**Qualifiers:** BRL Below Reporting Limit      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
J Analyte detected below quantitation limits      ND Not Detected at the Reporting Limit      R RPD outside recovery limits  
RL Reporting Limit      S Spike Recovery outside recovery limits

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8260B\_S\_MCP

Sample ID: LCS	SampType: lcs	TestCode: 8260B_S_MC	Units: µg/Kg	Prep Date:	RunNo: 61048						
Client ID: ZZZZZ	Batch ID: R61048	TestNo: SW8260B		Analysis Date: 5/18/2016	SeqNo: 670213						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	1284	50.0	1250	0	103	70	130				
1,1-Dichloroethane	1270	125	1250	0	102	70	130				
1,1-Dichloroethene	1134	50.0	1250	0	90.7	70	130				
1,1-Dichloropropene	1112	50.0	1250	0	89.0	70	130				
1,2,3-Trichlorobenzene	1051	50.0	1250	0	84.1	70	130				
1,2,4-Trichlorobenzene	1202	50.0	1250	0	96.1	70	130				
1,2,4-Trimethylbenzene	1390	50.0	1250	0	111	70	130				
1,2-Dibromo-3-Chloropropane	1228	50.0	1250	0	98.3	70	130				
1,2-Dibromoethane	1260	50.0	1250	0	101	70	130				
1,2-Dichlorobenzene	1188	50.0	1250	0	95.0	70	130				
1,2-Dichloroethane	1262	50.0	1250	0	101	70	130				
1,2-Dichloropropane	1224	50.0	1250	0	97.9	70	130				
1,3,5-Trimethylbenzene	1352	50.0	1250	0	108	70	130				
1,3-Dichlorobenzene	1222	50.0	1250	0	97.7	70	130				
1,3-Dichloropropane	1308	50.0	1250	0	105	70	130				
1,4-Dichlorobenzene	1092	50.0	1250	0	87.3	70	130				
2,2-Dichloropropane	856.5	125	1250	0	68.5	70	130				S
2-Butanone	1323	125	1250	0	106	70	130				
2-Chloroethyl Vinyl Ether	1224	50.0	1250	0	97.9	70	130				
2-Chlorotoluene	1308	125	1250	0	105	70	130				
2-Hexanone	1147	125	1250	0	91.8	70	130				
2-Methoxy-2-Methylbutane (TAME)	ND	50.0	1250	0	0	70	130				S
4-Chlorotoluene	1349	125	1250	0	108	70	130				
4-Isopropyltoluene	1329	50.0	1250	0	106	70	130				
4-Methyl-2-Pentanone	1208	50.0	1250	0	96.6	70	130				
Acetone	1267	125	1250	0	101	70	130				
Acrylonitrile	2344	50.0	2500	0	93.7	70	130				
Benzene	1228	50.0	1250	0	98.3	70	130				

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8260B\_S\_MCP

Sample ID: LCS	Samp Type: Ics	TestCode: 8260B_S_MC	Units: µg/Kg	Prep Date:	RunNo: 61048						
Client ID: ZZZZ	Batch ID: R61048	TestNo: SW8260B		Analysis Date: 5/18/2016	SeqNo: 670213						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	1252	50.0	1250	0	100	70	130				
Bromochloromethane	1222	125	1250	0	97.7	70	130				
Bromodichloromethane	1185	50.0	1250	0	94.8	70	130				
Bromoform	1379	50.0	1250	0	110	70	130				
Bromomethane	1190	50.0	1250	0	95.2	70	130				
Carbon Disulfide	1101	50.0	1250	0	88.1	70	130				
Carbon Tetrachloride	1121	50.0	1250	0	89.7	70	130				
Chlorobenzene	1129	50.0	1250	0	90.3	70	130				
Chloroethane	1080	50.0	1250	0	86.4	70	130				
Chloroform	1218	50.0	1250	0	97.4	70	130				
Chloromethane	1121	50.0	1250	0	89.7	70	130				
cis-1,2-Dichloroethene	1300	50.0	1250	0	104	70	130				
cis-1,3-Dichloropropene	1234	50.0	1250	0	98.7	70	130				
Dibromochloromethane	1264	50.0	1250	0	101	70	130				
Dibromomethane	1138	50.0	1250	0	91.1	70	130				
Dichlorodifluoromethane	1059	50.0	1250	0	84.7	70	130				
Diethyl Ether	ND	50.0	1250	0	0	70	130				S
Diisopropyl Ether	1314	50.0	1250	0	105	70	130				
Ethylbenzene	1315	50.0	1250	0	105	70	130				
Ethyl-t-Butyl Ether	1292	50.0	1250	0	103	70	130				
Hexachlorobutadiene	1076	50.0	1250	0	86.0	70	130				
Isopropylbenzene	1061	50.0	1250	0	84.9	70	130				
Methyl Tert-Butyl Ether	1312	50.0	1250	0	105	70	130				
Methylene Chloride	1158	50.0	1250	0	92.7	70	130				
Naphthalene	1218	125	1250	0	97.5	70	130				
n-Butylbenzene	1254	50.0	1250	0	100	70	130				
n-Propylbenzene	1353	50.0	1250	0	108	70	130				
sec-Butylbenzene	1270	50.0	1250	0	102	70	130				

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode: 8260B\_S\_MCP**

**Sample ID:** LCS      **Samp Type:** Ics      **TestCode:** 8260B\_S\_MC      **Units:** µg/Kg      **Prep Date:**      **RunNo:** 61048  
**Client ID:** ZZZZ      **Batch ID:** R61048      **TestNo:** SW8260B      **Analysis Date:** 5/18/2016      **SeqNo:** 670213

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	1386	125	1250	0	111	70	130				
tert-Butylbenzene	1402	50.0	1250	0	112	70	130				
Tetrachloroethene	1215	50.0	1250	0	97.2	70	130				
Tetrahydrofuran	1310	125	1250	0	105	70	130				
Toluene	1180	50.0	1250	0	94.4	70	130				
trans-1,2-Dichloroethene	1125	50.0	1250	0	90.0	70	130				
trans-1,3-Dichloropropene	1242	50.0	1250	0	99.3	70	130				
Trichloroethene	1139	50.0	1250	0	91.1	70	130				
Trichlorofluoromethane	1132	125	1250	0	90.5	70	130				
Vinyl Chloride	1170	50.0	1250	0	93.6	70	130				
Xylenes, Total	3514	125	3750	0	93.7	70	130				
Surr: 1,2-Dichloroethane-d4	688.8	0	750	0	91.8	70	130				
Surr: 4-Bromofluorobenzene	773.0	0	750	0	103	70	130				
Surr: Dibromofluoromethane	760.5	0	750	0	101	70	130				
Surr: Toluene-d8	815.2	0	750	0	109	70	130				

**Qualifiers:** BRL Below Reporting Limit      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
 J Analyte detected below quantitation limits      ND Not Detected at the Reporting Limit      R RPD outside recovery limits  
 RL Reporting Limit      S Spike Recovery outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8270D\_S\_ASE

Sample ID: MB-26513	TestCode: 8270D_S_AS	Units: µg/Kg	Prep Date: 5/19/2016	RunNo: 61055									
Client ID: ZZZZ	TestNo: SW8270C	(SW3545A)	Analysis Date: 5/19/2016	SeqNo: 670277									
Analyte	SampType: mbik	Batch ID: 26513	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Biphenyl			ND	10.0									
1,2,4-Trichlorobenzene			ND	100									
1,2-Dichlorobenzene			ND	100									
1,2-Dinitrobenzene			ND	100									
1,3-Dichlorobenzene			ND	100									
1,3-Dinitrobenzene			ND	100									
1,4-Dichlorobenzene			ND	100									
1,4-Dinitrobenzene			ND	100									
2,3,4,6-Tetrachlorophenol			ND	100									
2,4,5-Trichlorophenol			ND	100									
2,4,6-Trichlorophenol			ND	100									
2,4-Dichlorophenol			ND	100									
2,4-Dimethylphenol			ND	100									
2,4-Dinitrophenol			ND	500									
2,4-Dinitrotoluene			ND	100									
2,6-Dinitrotoluene			ND	100									
2-Chloronaphthalene			ND	100									
2-Chlorophenol			ND	100									
2-Methylnaphthalene			ND	100									
2-Methylphenol			ND	100									
2-Nitroaniline			ND	100									
2-Nitrophenol			ND	100									
3,3'-Dichlorobenzidine			ND	100									
3-Methylphenol/4-Methylphenol			ND	100									
3-Nitroaniline			ND	100									
4,6-Dinitro-2-Methylphenol			ND	500									
4-Bromophenyl Phenyl Ether			ND	100									
4-Chloro-3-Methylphenol			ND	500									

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8270D\_S\_ASE

Sample ID:	MB-26513	SampType:	mblik	TestCode:	8270D_S_AS	Units:	µg/Kg	Prep Date:	5/19/2016	RunNo:	61055
Client ID:	ZZZZZ	Batch ID:	26513	TestNo:	SW8270C	(SW3545A)		Analysis Date:	5/19/2016	SeqNo:	670277
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloroaniline	ND	100									
4-Chlorophenyl Phenyl Ether	ND	100									
4-Nitroaniline	ND	100									
4-Nitrophenol	ND	100									
Acenaphthene	ND	100									
Acenaphthylene	ND	100									
Acetophenone	ND	100									
Aniline	ND	500									
Anthracene	ND	100									
Azobenzene	ND	500									
Benz(a)Anthracene	ND	10.0									
Benzo(a)Pyrene	ND	10.0									
Benzo(b)Fluoranthene	ND	100									
Benzo(g,h,i)Perylene	ND	100									
Benzo(k)Fluoranthene	ND	100									
Benzyl Alcohol	ND	100									
Bis(2-Chloroethoxy)Methane	ND	100									
Bis(2-Chloroethyl)Ether	ND	100									
Bis(2-Chloroisopropyl)Ether	ND	100									
Bis(2-Ethylhexyl)Phthalate	ND	100									
Butyl Benzyl Phthalate	ND	100									
Carbazole	ND	100									
Chrysene	ND	100									
Dibenz(a,h)Anthracene	ND	10.0									
Dibenzofuran	ND	100									
Diethyl Phthalate	ND	100									
Dimethyl Phthalate	ND	100									
Di-n-Butyl Phthalate	ND	500									

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811



**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8270D\_S\_ASE

Sample ID: MB-26513	Samp Type: mbik	TestCode: 8270D_S_AS	Units: µg/Kg	Prep Date: 5/19/2016	RunNo: 61055						
Client ID: ZZZZ	Batch ID: 26513	TestNo: SW8270C	(SW3545A)	Analysis Date: 5/19/2016	SeqNo: 670277						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dl-n-Octyl Phthalate	ND	100									
Fluoranthene	ND	100									
Fluorene	ND	100									
Hexachlorobenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Hexachloroethane	ND	100									
Indeno(1,2,3-cd)Pyrene	ND	10.0									
Isophorone	ND	100									
Naphthalene	ND	100									
Nitrobenzene	ND	100									
N-Nitrosodimethylamine	ND	500									
N-Nitrosodi-n-Propylamine	ND	100									
N-Nitrosodiphenylamine	ND	500									
Pentachlorophenol	ND	100									
Phenanthrene	ND	100									
Phenol	ND	100									
Pyrene	ND	100									
Pyridine	ND	500									
Surr: 2,4,6-Tribromophenol	5693	0	7500	0	75.9	30		130			
Surr: 2-Fluorobiphenyl	3862	0	5000	0	77.2	30		130			
Surr: 2-Fluorophenol	6764	0	7500	0	90.2	30		130			
Surr: Nitrobenzene-d5	4336	0	5000	0	86.7	30		130			
Surr: Phenol-d6	6964	0	7500	0	92.8	30		130			
Surr: Terphenyl-d14	4382	0	5000	0	87.7	30		130			

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**  
 45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8270D\_S\_ASE

Sample ID: LCS-26513	SampType: Ics	TestCode: 8270D_S_AS	Units: µg/Kg	Prep Date: 5/19/2016	RunNo: 61055						
Client ID: ZZZZ	Batch ID: 26513	TestNo: SW8270C	(SW3545A)	Analysis Date: 5/19/2016	SeqNo: 670279						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Biphenyl	198.0	10.0	250	0	79.2	40	140				
1,2,4-Trichlorobenzene	1688	100	2500	0	67.5	40	140				
1,2-Dichlorobenzene	1698	100	2500	0	67.9	40	140				
1,2-Dinitrobenzene	1983	100	2500	0	79.3	40	140				
1,3-Dichlorobenzene	1654	100	2500	0	66.2	40	140				
1,3-Dinitrobenzene	2150	100	2500	0	86.0	40	140				
1,4-Dichlorobenzene	1634	100	2500	0	65.4	40	140				
1,4-Dinitrobenzene	2028	100	2500	0	81.1	40	140				
2,3,4,6-Tetrachlorophenol	2250	100	2500	0	90.0	30	130				
2,4,5-Trichlorophenol	1924	100	2500	0	76.9	30	130				
2,4,6-Trichlorophenol	1938	100	2500	0	77.5	30	130				
2,4-Dichlorophenol	1908	100	2500	0	76.3	30	130				
2,4-Dimethylphenol	1350	100	2500	0	54.0	30	130				
2,4-Dinitrophenol	ND	500	2500	0	0	15	130				S
2,4-Dinitrotoluene	2042	100	2500	0	81.7	40	140				
2,6-Dinitrotoluene	2076	100	2500	0	83.0	40	140				
2-Chloronaphthalene	1902	100	2500	0	76.1	40	140				
2-Chlorophenol	2016	100	2500	0	80.6	30	130				
2-Methylnaphthalene	1836	100	2500	0	73.4	40	140				
2-Methylphenol	2342	100	2500	0	93.7	30	130				
2-Nitroaniline	2448	100	2500	0	97.9	15	130				
2-Nitrophenol	1890	100	2500	0	75.6	30	130				
3,3'-Dichlorobenzidine	2415	100	2500	0	96.6	40	140				
3-Methylphenol/4-Methylphenol	2252	100	2500	0	90.1	30	130				
3-Nitroaniline	2208	100	2500	0	88.3	15	140				
4,6-Dinitro-2-Methylphenol	570.0	500	2500	0	22.8	30	130				S
4-Bromophenyl Phenyl Ether	2296	100	2500	0	91.9	40	140				
4-Chloro-3-Methylphenol	2172	500	2500	0	86.9	30	130				

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8270D\_S\_ASE

Sample ID: LCS-26513	Samp Type: Ics	TestCode: 8270D_S_AS	Units: µg/Kg	Prep Date: 5/19/2016	RunNo: 61055						
Client ID: ZZZZ	Batch ID: 26513	TestNo: SW8270C	(SW3545A)	Analysis Date: 5/19/2016	SeqNo: 670279						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloroaniline	1840	100	2500	0	73.6	15	140				
4-Chlorophenyl Phenyl Ether	2126	100	2500	0	85.0	40	140				
4-Nitroaniline	2208	100	2500	0	88.3	15	140				
4-Nitrophenol	1824	100	2500	0	73.0	15	130				
Acenaphthene	2141	100	2500	0	85.6	40	140				
Acenaphthylene	2096	100	2500	0	83.9	40	140				
Acetophenone	1941	100	2500	0	77.6	40	140				
Aniline	1806	500	2500	0	72.2	15	140				
Anthracene	2234	100	2500	0	89.3	40	140				
Azobenzene	2099	500	2500	0	84.0	40	140				
Benz(a)Anthracene	2320	10.0	2500	0	92.8	40	140				
Benzo(a)Pyrene	2284	10.0	2500	0	91.4	40	140				
Benzo(b)Fluoranthene	2344	100	2500	0	93.8	40	140				
Benzo(g,h,i)Perylene	2011	100	2500	0	80.4	40	140				
Benzo(k)Fluoranthene	2210	100	2500	0	88.4	40	140				
Benzyl Alcohol	1996	100	2500	0	79.9	40	140				
Bis(2-Chloroethoxy)Methane	2072	100	2500	0	82.9	40	140				
Bis(2-Chloroethyl)Ether	1779	100	2500	0	71.2	40	140				
Bis(2-Chloroisopropyl)Ether	2097	100	2500	0	83.9	40	140				
Bis(2-Ethylhexyl)Phthalate	2124	100	2500	0	85.0	40	140				
Butyl Benzyl Phthalate	2498	100	2500	0	99.9	40	140				
Carbazole	2252	100	2500	0	90.1	40	140				
Chrysene	2321	100	2500	0	92.8	40	140				
Dibenz(a,h)Anthracene	2282	10.0	2500	0	91.3	40	140				
Dibenzofuran	2032	100	2500	0	81.3	40	140				
Diethyl Phthalate	2040	100	2500	0	81.6	40	140				
Dimethyl Phthalate	1990	100	2500	0	79.6	40	140				
Di-n-Butyl Phthalate	2016	500	2500	0	80.7	40	140				

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** 8270D\_S\_ASE

Sample ID: LCS-26513    SampType: Ics    TestCode: 8270D\_S\_AS    Units: µg/Kg    Prep Date: 5/19/2016    RunNo: 61055  
 Client ID: ZZZZ    Batch ID: 26513    TestNo: SW8270C    (SW3545A)    Analysis Date: 5/19/2016    SeqNo: 670279

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-n-Octyl Phthalate	2340	100	2500	0	93.6	40	140				
Fluoranthene	2197	100	2500	0	87.9	40	140				
Fluorene	2106	100	2500	0	84.2	40	140				
Hexachlorobenzene	2084	10.0	2500	0	83.3	40	140				
Hexachlorobutadiene	1618	10.0	2500	0	64.7	40	140				
Hexachloroethane	1720	100	2500	0	68.8	40	140				
Indeno(1,2,3-cd)Pyrene	2204	10.0	2500	0	88.2	40	140				
Isophorone	2112	100	2500	0	84.5	40	140				
Naphthalene	1908	100	2500	0	76.3	40	140				
Nitrobenzene	1970	100	2500	0	78.8	40	140				
N-Nitrosodimethylamine	1875	500	2500	0	75.0	40	140				
N-Nitrosodi-n-Propylamine	2040	100	2500	0	81.6	40	140				
N-Nitrosodiphenylamine	2214	500	2500	0	88.6	40	140				
Pentachlorophenol	1430	100	2500	0	57.2	30	130				
Phenanthrene	2246	100	2500	0	89.9	40	140				
Phenol	2102	100	2500	0	84.1	30	130				
Pyrene	2512	100	2500	0	101	40	140				S
Pyridine	871.5	500	2500	0	34.9	40	140				
Surr: 2,4,6-Tribromophenol	6566	0	7500	0	87.6	30	130				
Surr: 2-Fluorobiphenyl	3938	0	5000	0	78.8	30	130				
Surr: 2-Fluorophenol	6525	0	7500	0	87.0	30	130				
Surr: Nitrobenzene-d5	4392	0	5000	0	87.8	30	130				
Surr: Phenol-d6	7133	0	7500	0	95.1	30	130				
Surr: Terphenyl-d14	5148	0	5000	0	103	30	130				

**Qualifiers:** BRL Below Reporting Limit    E Value above quantitation range    H Holding times for preparation or analysis exceeded  
 J Analyte detected below quantitation limits    ND Not Detected at the Reporting Limit    R RPD outside recovery limits  
 RL Reporting Limit    S Spike Recovery outside recovery limits

**GeoLabs, Inc.**

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**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode: COND\_S**

Sample ID: MB-R61034	SampType: MBLK	TestCode: COND_S	Units: µmhos/cm	Prep Date:	RunNo: 61034						
Client ID: ZZZZZ	Batch ID: R61034	TestNo: E120.1		Analysis Date: 5/17/2016	SeqNo: 670096						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	ND	2.00									

Sample ID: LCS-R61034	SampType: LCS	TestCode: COND_S	Units: µmhos/cm	Prep Date:	RunNo: 61034						
Client ID: ZZZZZ	Batch ID: R61034	TestNo: E120.1		Analysis Date: 5/17/2016	SeqNo: 670097						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	740.0	2.00	717.5	0.06	103	90	110				

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

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**CLIENT:** Germano  
**Work Order:** 1605082  
**Project:** DW Clark, Inc.

**TestCode:** hg\_7471b\_s

Sample ID: MB-26517	SampType: MBLK	TestCode: hg_7471b_s	Units: mg/Kg	Prep Date: 5/19/2016	RunNo: 61052						
Client ID: ZZZZZ	Batch ID: 26517	TestNo: SW 7471B	(SW7471B)	Analysis Date: 5/19/2016	SeqNo: 670241						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0830									

Sample ID: LCS-26517	SampType: LCS	TestCode: hg_7471b_s	Units: mg/Kg	Prep Date: 5/19/2016	RunNo: 61052						
Client ID: ZZZZZ	Batch ID: 26517	TestNo: SW 7471B	(SW7471B)	Analysis Date: 5/19/2016	SeqNo: 670242						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.8500	0.0830	0.833	0	102	80	120				

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

1605082

Page 1 of 1  
**SPECIAL INSTRUCTIONS**  
 OT - SAND FROM  
 FOUNDRY CASTINGS

**Turnaround Time**  
 RUSH: 24hrs  48hrs  72hrs   
 STANDARD: 5 Days   
 Rush Approved By: \_\_\_\_\_

**Client:** MARK A GERMANO, LSP  
**Address:** 15 PINEHURST RD  
 MARSHFIELD MA 02050  
 (339) 793-3528  
**Phone:** \_\_\_\_\_  
**Fax:** \_\_\_\_\_  
**Contact:** \_\_\_\_\_  
**E-mail:** mgermano916@gmail.com

**Project Number:** D.W. CLARK, INC.  
**Project Location:** 692 N. BERFORD (RT 128)  
 F. BRIDGEMAN, MA  
**Purchase Order #:** \_\_\_\_\_  
**Collected By:** S. MCISAAC

SAMPLE ID	COLLECTION		SAMPLE LOCATION	CONTAINER		M A T R I X	C O M P	G R A B	P R E S	G E O L A B S S A M P L E N U M B E R	A N A L Y S E S R E Q U E S T E D	L A B P H	T E M P E R A T U R E
	D A T E	T I M E		S A M P L E	Q U A N T								
	5/13	10 <sup>30</sup>	STM SP-1	V/G	4	OT	X	X		5082-001			
	"	10 <sup>40</sup>	STM SP-2	V/G	4	OT	X	X		002			
					802								
					VDS								

**REINQUISHED BY:**  
 Relinquished By: [Signature] Date/Time: 5/13/16 12:00  
 Relinquished By: [Signature] Date/Time: 5/13/16 3:15  
 Relinquished By: [Signature] Date/Time: 5/13/16 15:35  
 Relinquished By: [Signature] Date/Time: 5/13/16

**GEOLABS CHAIN OF CUSTODY**

**CONTAINER CODES:**  
 A = Amber  
 B = Bag  
 G = Glass  
 P = Plastic  
 S = Summa Canister  
 O = Other V = VOA

**MATRIX CODES:**  
 GW = Ground Water  
 WW = Wastewater  
 DW = Drinking Water  
 SL = Sludge  
 S = Soil A = Air  
 O = Oil OT = Other

**PRESERVATIVE CODES:**  
 1 = HCl  
 2 = HNO<sub>3</sub>  
 3 = H<sub>2</sub>SO<sub>4</sub>  
 4 = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
 5 = NaOH  
 6 = MeOH  
 7 = JCE

83413

ANALYTICAL REPORT



Friday, January 20, 2017

Mark Germano  
Germano  
15 Pinehurst Rd.  
Marshfield, MA 02050

GeoLabs, Inc.  
45 Johnson Lane  
Braintree MA 02184  
Tele: 781 848 7844  
Fax: 781 848 7811

TEL: (339) 793-3528

FAX:

Project: DW CLARK  
Location: 692 N. BEDFORD ST, EAST  
BRIDGEWATER MA

Order No.: 1701050

Dear Mark Germano:

GeoLabs, Inc. received 1 sample(s) on 1/13/2017 for the analyses presented in the following report.

The laboratory results in this report relate only to samples submitted.

All data for associated QC met method or laboratory specifications, except when noted in the Case Narrative.

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

Sincerely,

A handwritten signature in black ink, appearing to read "David Mick", is written over a white background.

David Mick  
Laboratory Director

For current certifications, please visit our website at [www.geolabs.com](http://www.geolabs.com)

Certifications:

CT (PH-0148) - MA (M-MA015) - ~~RI (LA000252)~~ - RI (LA000252)



Date: 20-Jan-17

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CLIENT: Germano  
Project: DW CLARK  
Lab Order: 1701050

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**CASE NARRATIVE**

Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

The project was accompanied by satisfactory Chain of Custody documentation.

Analysis of Sample(s)

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure. No analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples.

SIGNATURE:



LAB DIRECTOR

PRINTED NAME: David Mick

DATE: 01/20/17

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

## ANALYTICAL REPORT

Reported Date: 20-Jan-17

CLIENT: Germano  
 Lab Order: 1701050  
 Project: DW CLARK  
 Lab ID: 1701050-001

Client Sample ID: SFS-COMP-1  
 Collection Date: 1/13/2017 10:00:00 AM  
 Date Received: 1/13/2017  
 Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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## IGNITABILITY - SW1010

Analyst: WFR

Prep Method:	Prep Date:
Flash Point	93 20 °C

## SEMIVOLATILE ORGANICS - SW8270D

Analyst: Admir

Prep Method: (SW3545A)	Prep Date: 1/19/2017 10:29:52 AM
1,1-Biphenyl	ND 10.5 µg/Kg-dry 1 1/19/2017 2:27:00 PM
1,2,4-Trichlorobenzene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
1,2-Dichlorobenzene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
1,2-Dinitrobenzene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
1,3-Dichlorobenzene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
1,3-Dinitrobenzene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
1,4-Dichlorobenzene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
1,4-Dinitrobenzene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2,3,4,6-Tetrachlorophenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2,4,5-Trichlorophenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2,4,6-Trichlorophenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2,4-Dichlorophenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2,4-Dimethylphenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2,4-Dinitrophenol	ND 526 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2,4-Dinitrotoluene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2,6-Dinitrotoluene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2-Chloronaphthalene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2-Chlorophenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2-Methylnaphthalene	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2-Methylphenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2-Nitroaniline	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
2-Nitrophenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
3,3'-Dichlorobenzidine	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
3-Methylphenol/4-Methylphenol	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
3-Nitroaniline	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
4,6-Dinitro-2-Methylphenol	ND 526 µg/Kg-dry 1 1/19/2017 2:27:00 PM
4-Bromophenyl Phenyl Ether	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
4-Chloro-3-Methylphenol	ND 526 µg/Kg-dry 1 1/19/2017 2:27:00 PM
4-Chloroaniline	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM
4-Chlorophenyl Phenyl Ether	ND 105 µg/Kg-dry 1 1/19/2017 2:27:00 PM

Qualifiers:	B Analyte detected in the associated Method Blank	BRL Below Reporting Limit
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	RL Reporting Limit	S Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

## ANALYTICAL REPORT

Reported Date: 20-Jan-17

<b>CLIENT:</b>	Germano	<b>Client Sample ID:</b>	SFS-COMP-1
<b>Lab Order:</b>	1701050	<b>Collection Date:</b>	1/13/2017 10:00:00 AM
<b>Project:</b>	DW CLARK	<b>Date Received:</b>	1/13/2017
<b>Lab ID:</b>	1701050-001	<b>Matrix:</b>	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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## SEMIVOLATILE ORGANICS - SW8270D

Analyst: Admir

Prep Method: (SW3545A)

Prep Date: 1/19/2017 10:29:52 AM

4-Nitroaniline	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
4-Nitrophenol	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Acenaphthene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Acenaphthylene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Acetophenone	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Aniline	ND	526		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Anthracene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Azobenzene	ND	526		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Benz(a)Anthracene	ND	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Benzo(a)Pyrene	ND	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Benzo(b)Fluoranthene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Benzo(g,h,i)Perylene	200	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Benzo(k)Fluoranthene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Benzyl Alcohol	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Bis(2-Chloroethoxy)Methane	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Bis(2-Chloroethyl)Ether	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Bis(2-Chloroisopropyl)Ether	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Bis(2-Ethylhexyl)Phthalate	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Butyl Benzyl Phthalate	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Carbazole	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Chrysene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Dibenz(a,h)Anthracene	ND	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Dibenzofuran	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Diethyl Phthalate	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Dimethyl Phthalate	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Di-n-Butyl Phthalate	ND	526		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Di-n-Octyl Phthalate	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Fluoranthene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Fluorene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Hexachlorobenzene	ND	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Hexachlorobutadiene	ND	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Hexachloroethane	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Indeno(1,2,3-cd)Pyrene	188	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Isophorone	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Naphthalene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Nitrobenzene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date:** 20-Jan-17

**CLIENT:** Germano  
**Lab Order:** 1701050  
**Project:** DW CLARK  
**Lab ID:** 1701050-001

**Client Sample ID:** SFS-COMP-1  
**Collection Date:** 1/13/2017 10:00:00 AM  
**Date Received:** 1/13/2017  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANICS - SW8270D**

Analyst: ZYZ

Prep Method: (SW3545A) Prep Date: 1/19/2017 10:29:52 AM

N-Nitrosodimethylamine	ND	526		µg/Kg-dry	1	1/19/2017 2:27:00 PM
N-Nitrosodi-n-Propylamine	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
N-Nitrosodiphenylamine	ND	526		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Pentachlorophenol	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Phenanthrene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Phenol	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Pyrene	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Pyridine	ND	526		µg/Kg-dry	1	1/19/2017 2:27:00 PM
Surr: 2,4,6-Tribromophenol	45.0	30-130		%REC	1	1/19/2017 2:27:00 PM
Surr: 2-Fluorobiphenyl	47.4	30-130		%REC	1	1/19/2017 2:27:00 PM
Surr: 2-Fluorophenol	64.0	30-130		%REC	1	1/19/2017 2:27:00 PM
Surr: Nitrobenzene-d5	37.5	30-130		%REC	1	1/19/2017 2:27:00 PM
Surr: Phenol-d6	46.7	30-130		%REC	1	1/19/2017 2:27:00 PM
Surr: Terphenyl-d14	40.6	30-130		%REC	1	1/19/2017 2:27:00 PM
TIC: 1,3-Benzenediol (Resorcinol)	ND	105		µg/Kg-dry	1	1/19/2017 2:27:00 PM
TIC: butyl ester-Hexadecanoic acid	1290	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
TIC: butyl ester-Octadecanoic acid	1460	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
TIC: dimethyl ester-Pentanedioic acid	1900	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM
TIC: Triacetin	2690	10.5		µg/Kg-dry	1	1/19/2017 2:27:00 PM

**PH - SW9045C**

Analyst: RP

Prep Method: Prep Date:

pH	9.07	0	H	pH Units	1	1/17/2017 2:00:00 PM
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**NOTES:**  
 taken at 21.7 deg.C

**CYANIDE, REACTIVE - SW7.3.3.2**

Analyst: RP

Prep Method: Prep Date:

Reactive Cyanide	ND	0.105		mg/Kg-dry	1	1/19/2017
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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

Reported Date: 20-Jan-17

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<b>CLIENT:</b>	Germano	<b>Client Sample ID:</b>	SFS-COMP-1
<b>Lab Order:</b>	1701050	<b>Collection Date:</b>	1/13/2017 10:00:00 AM
<b>Project:</b>	DW CLARK	<b>Date Received:</b>	1/13/2017
<b>Lab ID:</b>	1701050-001	<b>Matrix:</b>	SOIL

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<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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SULFIDE, REACTIVE - SW7.3.4.2 Analyst: RP

Prep Method:

Prep Date:

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Reactive Sulfide	ND	0.263		mg/Kg-dry	1	1/19/2017
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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811



84868

ANALYTICAL REPORT



Thursday, June 15, 2017

Mark Germano  
Germano  
15 Pinehurst Rd.  
Marshfield, MA 02050

GeoLabs, Inc.  
45 Johnson Lane  
Braintree MA 02184  
Tele: 781 848 7844  
Fax: 781 848 7811

TEL: (339) 793-3528

FAX:

Project: DW CLARK

Location:

Order No.: 1705066

Dear Mark Germano:

GeoLabs, Inc. received 1 sample(s) on 5/22/2017 for the analyses presented in the following report.

This is a preliminary report that contains incomplete data or data that has not been fully validated. Caution should be exercised in the use of any data presented as final reported results may not reflect the values presented.

The laboratory results in this report relate only to samples submitted.

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

Sincerely,

A handwritten signature in black ink, appearing to read "DKahfer", is written over the typed name and title.

David Kahfer, on behalf of  
Laboratory Director

For current certifications, please visit our website at [www.geolabs.com](http://www.geolabs.com)

Certifications:

MA (M-MA015) - RI (LA000252)

Date: 15-Jun-17

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CLIENT: Germano  
Project: DW CLARK  
Lab Order: 1705066

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**CASE NARRATIVE**

Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

The project was accompanied by satisfactory Chain of Custody documentation.

Analysis of Sample(s)

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure. No analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples.

SIGNATURE: 

PRINTED NAME: David Kahler, on behalf of Lab Director

DATE:



**ANALYTICAL REPORT**

**Reported Date: 15-Jun-17**

**CLIENT:** Germano  
**Lab Order:** 1705066  
**Project:** DW CLARK  
**Lab ID:** 1705066-001

**Client Sample ID:** FNDRY-DISP-1  
**Collection Date:** 5/19/2017 10:00:00 AM  
**Date Received:** 5/22/2017  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**IGNITABILITY - SW1010** Analyst: Admir

Prep Method:

Prep Date:

Flash Point	>93	20		°C	1	6/3/2017
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**POLYCHLORINATED BIPHENYLS - SW8082A**

Analyst: DC

Prep Method:

Prep Date:

Aroclor 1016	ND	51.5		µg/Kg-dry	1	6/15/2017
Aroclor 1221	ND	51.5		µg/Kg-dry	1	6/15/2017
Aroclor 1232	ND	51.5		µg/Kg-dry	1	6/15/2017
Aroclor 1242	ND	51.5		µg/Kg-dry	1	6/15/2017
Aroclor 1248	ND	51.5		µg/Kg-dry	1	6/15/2017
Aroclor 1254	ND	51.5		µg/Kg-dry	1	6/15/2017
Aroclor 1260	ND	51.5		µg/Kg-dry	1	6/15/2017

**TOTAL PETROLEUM HYDROCARBONS - 8100M**

Analyst: DC

Prep Method: (8100M)

Prep Date: 6/12/2017 3:37:21 PM

Total Petroleum Hydrocarbons	88.7	51.5	H	mg/Kg-dry	1	6/13/2017
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**TOTAL METALS BY ICP - SW6010C**

Analyst: Admir

Prep Method: (SW3050B)

Prep Date: 5/5/2017 2:20:32 PM

Arsenic	ND	4.99		mg/Kg-dry	1	5/26/2017
Barium	ND	4.99		mg/Kg-dry	1	5/26/2017
Cadmium	ND	0.998		mg/Kg-dry	1	5/26/2017
Chromium	71.5	4.99		mg/Kg-dry	1	5/26/2017
Lead	ND	4.99		mg/Kg-dry	1	5/26/2017
Selenium	9.58	4.99		mg/Kg-dry	1	5/26/2017
Silver	ND	4.99		mg/Kg-dry	1	5/26/2017

**MERCURY - SW7471B**

Analyst: EC

Prep Method: (SW7471B)

Prep Date: 5/26/2017 3:59:38 PM

Mercury	ND	0.0856		mg/Kg-dry	1	5/26/2017
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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date: 15-Jun-17**

**CLIENT:** Germano  
**Lab Order:** 1705066  
**Project:** DW CLARK  
**Lab ID:** 1705066-001

**Client Sample ID:** FNDRY-DISP-1  
**Collection Date:** 5/19/2017 10:00:00 AM  
**Date Received:** 5/22/2017  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>MERCURY - SW7471B</b>						Analyst: EC
Prep Method: (SW7471B)		Prep Date: 5/26/2017 3:59:38 PM				

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE ORGANICS - SW8270D</b>						Analyst: Admir
Prep Method: (SW3545A)		Prep Date: 5/22/2017 10:29:14 AM				

1,1-Biphenyl	ND	10.3		µg/Kg-dry	1	5/30/2017 4:31:00 PM
1,2,4-Trichlorobenzene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
1,2-Dichlorobenzene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
1,2-Dinitrobenzene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
1,3-Dichlorobenzene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
1,3-Dinitrobenzene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
1,4-Dichlorobenzene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
1,4-Dinitrobenzene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2,3,4,6-Tetrachlorophenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2,4,5-Trichlorophenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2,4,6-Trichlorophenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2,4-Dichlorophenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2,4-Dimethylphenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2,4-Dinitrophenol	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2,4-Dinitrotoluene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2,6-Dinitrotoluene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2-Chloronaphthalene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2-Chlorophenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2-Methylnaphthalene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2-Methylphenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2-Nitroaniline	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
2-Nitrophenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
3,3'-Dichlorobenzidine	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
3-Methylphenol/4-Methylphenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
3-Nitroaniline	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
4,6-Dinitro-2-Methylphenol	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM
4-Bromophenyl Phenyl Ether	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
4-Chloro-3-Methylphenol	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM
4-Chloroaniline	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
4-Chlorophenyl Phenyl Ether	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
4-Nitroaniline	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

## ANALYTICAL REPORT

Reported Date: 15-Jun-17

CLIENT: Germano  
 Lab Order: 1705066  
 Project: DW CLARK  
 Lab ID: 1705066-001

Client Sample ID: FNDRY-DISP-1  
 Collection Date: 5/19/2017 10:00:00 AM  
 Date Received: 5/22/2017  
 Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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## SEMIVOLATILE ORGANICS - SW8270D

Analyst: Admir

Prep Method: (SW3545A)

Prep Date: 5/22/2017 10:29:14 AM

4-Nitrophenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Acenaphthene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Acenaphthylene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Acetophenone	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Aniline	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Anthracene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Azobenzene	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Benz(a)Anthracene	ND	10.3		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Benzo(a)Pyrene	ND	10.3		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Benzo(b)Fluoranthene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Benzo(g,h,i)Perylene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Benzo(k)Fluoranthene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Benzyl Alcohol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Bis(2-Chloroethoxy)Methane	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Bis(2-Chloroethyl)Ether	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Bis(2-Chloroisopropyl)Ether	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Bis(2-Ethylhexyl)Phthalate	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Butyl Benzyl Phthalate	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Carbazole	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Chrysene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Dibenz(a,h)Anthracene	ND	10.3		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Dibenzofuran	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Diethyl Phthalate	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Dimethyl Phthalate	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Di-n-Butyl Phthalate	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Di-n-Octyl Phthalate	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Fluoranthene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Fluorene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Hexachlorobenzene	ND	10.3		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Hexachlorobutadiene	ND	10.3		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Hexachloroethane	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Indeno(1,2,3-cd)Pyrene	ND	10.3		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Isophorone	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Naphthalene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Nitrobenzene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
N-Nitrosodimethylamine	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date: 15-Jun-17**

**CLIENT:** Germano  
**Lab Order:** 1705066  
**Project:** DW CLARK  
**Lab ID:** 1705066-001

**Client Sample ID:** FNDRY-DISP-1  
**Collection Date:** 5/19/2017 10:00:00 AM  
**Date Received:** 5/22/2017  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANICS - SW8270D**

Analyst: Admir

Prep Method: (SW3545A) Prep Date: 5/22/2017 10:29:14 AM

N-Nitrosodi-n-Propylamine	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
N-Nitrosodiphenylamine	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Pentachlorophenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Phenanthrene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Phenol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Pyrene	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM
Pyridine	ND	515		µg/Kg-dry	1	5/30/2017 4:31:00 PM
TIC: 1,3-Benzenediol	ND	103		µg/Kg-dry	1	5/30/2017 4:31:00 PM

**VOLATILE ORGANIC COMPOUNDS - 8260B**

Analyst: Admir

Prep Method: Prep Date:

1,1,1,2-Tetrachloroethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,1,1-Trichloroethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,1,2,2-Tetrachloroethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,1,2-Trichloroethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,1-Dichloroethane	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,1-Dichloroethene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,1-Dichloropropene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,2,3-Trichlorobenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,2,4-Trichlorobenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,2,4-Trimethylbenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,2-Dibromo-3-Chloropropane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,2-Dibromoethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,2-Dichlorobenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,2-Dichloroethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,2-Dichloropropane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,3,5-Trimethylbenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,3-Dichlorobenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,3-Dichloropropane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,4-Dichlorobenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
1,4-Dioxane	ND	155	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
2,2-Dichloropropane	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
2-Butanone	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
2-Chloroethyl Vinyl Ether	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

**Reported Date: 15-Jun-17**

**CLIENT:** Germano  
**Lab Order:** 1705066  
**Project:** DW CLARK  
**Lab ID:** 1705066-001

**Client Sample ID:** FNDRY-DISP-1  
**Collection Date:** 5/19/2017 10:00:00 AM  
**Date Received:** 5/22/2017  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS - 8260B**

Analyst: **Admir**

Prep Method:	Prep Date:					
2-Chlorotoluene	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
2-Hexanone	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
2-Methoxy-2-Methylbutane (TAME)	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
4-Chlorotoluene	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
4-Isopropyltoluene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
4-Methyl-2-Pentanone	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Acetone	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Acrylonitrile	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Benzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Bromobenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Bromochloromethane	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Bromodichloromethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Bromoform	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Bromomethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Carbon Disulfide	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Carbon Tetrachloride	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Chlorobenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Chloroethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Chloroform	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Chloromethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
cis-1,2-Dichloroethene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
cis-1,3-Dichloropropene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Dibromochloromethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Dibromomethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Dichlorodifluoromethane	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Diethyl Ether	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Diisopropyl Ether	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Ethylbenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Ethyl-t-Butyl Ether	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Hexachlorobutadiene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Isopropylbenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Methyl Tert-Butyl Ether	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Methylene Chloride	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Naphthalene	713	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
n-Butylbenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
n-Propylbenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

Reported Date: 15-Jun-17

**CLIENT:** Germano  
**Lab Order:** 1705066  
**Project:** DW CLARK  
**Lab ID:** 1705066-001

**Client Sample ID:** FNDRY-DISP-1  
**Collection Date:** 5/19/2017 10:00:00 AM  
**Date Received:** 5/22/2017  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS - 8260B**

Analyst: Admir

Prep Method:	Prep Date:					
sec-Butylbenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Styrene	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
tert-Butylbenzene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Tetrachloroethene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Tetrahydrofuran	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Toluene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
trans-1,2-Dichloroethene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
trans-1,3-Dichloropropene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Trichloroethene	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Trichlorofluoromethane	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Vinyl Chloride	ND	51.5	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM
Xylenes, Total	ND	129	H	µg/Kg-dry	1	6/5/2017 7:27:00 PM

**SPECIFIC CONDUCTANCE - E120.1**

Analyst: Admir

Prep Method:	Prep Date:					
Specific Conductance	2300	1.00		µmhos/cm	1	6/1/2017

**PH - SW9045C**

Analyst: RP

Prep Method:	Prep Date:					
pH	9.15	0	H	pH Units	1	5/26/2017 11:30:00 AM
<b>NOTES:</b> taken at 20.6 deg.C						

**CYANIDE, REACTIVE - SW7.3.3.2**

Analyst: RP

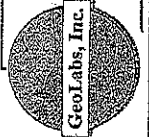
Prep Method:	Prep Date:					
Reactive Cyanide	ND	0.103		mg/Kg-dry	1	6/3/2017

**SULFIDE, REACTIVE - SW7.3.4.2**

Analyst: RP

Prep Method:	Prep Date:					
Reactive Sulfide	ND	0.258		mg/Kg-dry	1	6/3/2017

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits



**CHAIN OF CUSTODY RECORD**  
 GeoLabs, Inc. Environmental Laboratories  
 45 Johnson Lane, Braintree, MA 02184  
 p 781.848.7844 • f 781.848.7811  
 www.geolabs.com

Sample Handling: circle choice  
 Filtration  Done  (Not Needed)  
 Lab to do Lab to do Y/N

1705066 Page 1 of 1  
 Special Instructions  
 \* TIC ANALYSIS FOR 1,3-BENZENE DIOXIDE

Turnaround: circle one  
 1-day  3-day  5/7-days   
 Data Delivery: circle choice (s)  
 email  PDE   
 Fax  GW-1   
 Format: Excel  DEP  Other

Requirements: circle choice (s)  
 CT RCP (Reasonable Confidence Protocols)   
 State / Fed Program - Criteria

Client: MARK GERMANO Project: D.W. CLARK  
 Address: 15 PINEHURST ROAD Project PO: \_\_\_\_\_  
MARSHFIELD MA Invoice to: M. GERMANO  
 Contact: \_\_\_\_\_

DATE	COLLECTION	SAMPLE LOCATION / ID	CONTAINER		PRESERVATIVE	Analysis Requested										
			TYPE	QUANTITY		REACTIVITY	RECEP & ME	PCBS	TPH	VOCs/SUGs	CONDUCTIV	PH / CORROS	FLASHPOINT	TEMPERATURE		
5/17/1000	LK	ENDRY - DISP - 1	4	8	5066 - 001	X	X	X	X	X	X	X	X	X	X	X

**Matrix Codes:**  
 DW = Drinking Water S = Soil A = Air  
 GW = Ground Water SL = Sludges O = Oil OT = Other  
 WW = Waste Water

**Received on Ice**

**Preservatives**  
 1 = HCl 3 = H2SO4 5 = NaOH 7 = Other  
 2 = HNO3 4 = NaOH/03 6 = MEOH

**Containers:**  
 A = Amber B = Bag 0 = Other  
 G = Glass P = Plastic  
 S = Summa V = Voa

Received by: [Signature] Date / Time: 5:22:17  
10:50

July 18, 2017

Mark A. Germano, LSP  
Mark A. Germano, LSP  
15 Pinehurst Road  
Marshfield, MA 02050

Project Location: DW Clark - East Bridgewater  
Client Job Number:  
Project Number: DW Clark  
Laboratory Work Order Number: 17G0323

Enclosed are results of analyses for samples received by the laboratory on July 11, 2017. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Kerry K. McGee". The signature is written in a cursive, flowing style.

Kerry K. McGee  
Project Manager



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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Mark A. Germano, LSP  
 15 Pinehurst Road  
 Marshfield, MA 02050  
 ATTN: Mark A. Germano, LSP

REPORT DATE: 7/18/2017

PURCHASE ORDER NUMBER:

PROJECT NUMBER: DW Clark

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 17G0323

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: DW Clark - East Bridgewater

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
DISP-7/10-1	17G0323-01	Soil		SM 2540G SW-846 6010C-D	
DISP-7/10-2	17G0323-02	Soil		SM 2540G SW-846 6010C-D	
DISP-7/10-3	17G0323-03	Soil		SM 2540G SW-846 6010C-D	
DISP-7/10-4	17G0323-04	Soil		SM 2540G SW-846 6010C-D	
DISP-7/10-5	17G0323-05	Soil		SM 2540G SW-846 6010C-D	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only a select list of metals were requested and reported except for 17G0323 sample -01 in which only As was requested and reported.

**SW-846 6010C/D SW-846 6020A/B**

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopycinski". The signature is written in a cursive, somewhat stylized script.

Tod E. Kopycinski  
Laboratory Director

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-1

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-01

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	2.5	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:11	QNW

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-1

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	98.4		% Wt	1		SM 2540G	7/14/17	7/17/17 8:41	MRL

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-2

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-02

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.5	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:14	QNW
Beryllium	ND	0.25	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:14	QNW
Copper	100	0.50	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:14	QNW
Nickel	7.0	0.50	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:14	QNW
Thallium	ND	2.5	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:14	QNW
Zinc	5.4	1.0	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:14	QNW

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-2

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	99.7		% Wt	1		SM 2540G	7/14/17	7/17/17 8:41	MRL

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-3

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-03

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.3	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:17	QNW
Beryllium	ND	0.23	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:17	QNW
Copper	2.1	0.46	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:17	QNW
Nickel	5.0	0.46	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:17	QNW
Thallium	ND	2.3	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:17	QNW
Zinc	ND	0.92	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:17	QNW



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-3

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	99.8		% Wt	1		SM 2540G	7/14/17	7/17/17 8:41	MRL

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-4

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-04

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.6	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:22	QNW
Beryllium	ND	0.26	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:22	QNW
Copper	19	0.51	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:22	QNW
Nickel	16	0.51	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:22	QNW
Thallium	ND	2.6	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:22	QNW
Zinc	20	1.0	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:22	QNW

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-4

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.5		% Wt	1		SM 2540G	7/14/17	7/17/17 8:41	MRL

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-5

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-05

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.4	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:26	QNW
Beryllium	ND	0.24	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:26	QNW
Copper	210	0.48	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:26	QNW
Nickel	130	0.48	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:26	QNW
Thallium	ND	2.4	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:26	QNW
Zinc	24	0.96	mg/Kg dry	1		SW-846 6010C-D	7/14/17	7/17/17 18:26	QNW

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: DW Clark - East Bridgewater

Sample Description:

Work Order: 17G0323

Date Received: 7/11/2017

Field Sample #: DISP-7/10-5

Sampled: 7/10/2017 14:00

Sample ID: 17G0323-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	99.9		% Wt	1		SM 2540G	7/14/17	7/17/17 8:41	MRL

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method: % Solids-SM 2540G**

<b>Lab Number [Field ID]</b>	<b>Batch</b>	<b>Date</b>
17G0323-01 [DISP-7/10-1]	B181609	07/14/17
17G0323-02 [DISP-7/10-2]	B181609	07/14/17
17G0323-03 [DISP-7/10-3]	B181609	07/14/17
17G0323-04 [DISP-7/10-4]	B181609	07/14/17
17G0323-05 [DISP-7/10-5]	B181609	07/14/17

**Prep Method: SW-846 3050B-SW-846 6010C-D**

<b>Lab Number [Field ID]</b>	<b>Batch</b>	<b>Initial [g]</b>	<b>Final [mL]</b>	<b>Date</b>
17G0323-01 [DISP-7/10-1]	B181616	1.01	50.0	07/14/17
17G0323-02 [DISP-7/10-2]	B181616	1.01	50.0	07/14/17
17G0323-03 [DISP-7/10-3]	B181616	1.09	50.0	07/14/17
17G0323-04 [DISP-7/10-4]	B181616	1.04	50.0	07/14/17
17G0323-05 [DISP-7/10-5]	B181616	1.04	50.0	07/14/17

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B181616 - SW-846 3050B</b>										
<b>Blank (B181616-BLK1)</b>										
Prepared: 07/14/17 Analyzed: 07/17/17										
Antimony	ND	2.3	mg/Kg wet							
Arsenic	ND	2.3	mg/Kg wet							
Beryllium	ND	0.23	mg/Kg wet							
Copper	ND	0.46	mg/Kg wet							
Nickel	ND	0.46	mg/Kg wet							
Thallium	ND	2.3	mg/Kg wet							
Zinc	ND	0.92	mg/Kg wet							
<b>LCS (B181616-BS1)</b>										
Prepared: 07/14/17 Analyzed: 07/17/17										
Antimony	58.2	5.0	mg/Kg wet	88.2		65.9	0-210.3			
Arsenic	49.1	5.0	mg/Kg wet	57.0		86.1	77.8-122.1			
Beryllium	63.6	0.50	mg/Kg wet	67.5		94.2	82.3-117.7			
Copper	54.9	0.99	mg/Kg wet	56.4		97.3	80.4-119.6			
Nickel	56.6	0.99	mg/Kg wet	61.3		92.4	82.2-117.8			
Thallium	153	5.0	mg/Kg wet	178		85.7	78.2-121.6			
Zinc	184	2.0	mg/Kg wet	198		92.9	79.7-120.8			
<b>LCS Dup (B181616-BSD1)</b>										
Prepared: 07/14/17 Analyzed: 07/17/17										
Antimony	55.8	4.8	mg/Kg wet	88.2		63.3	0-210.3	4.16	30	
Arsenic	45.5	4.8	mg/Kg wet	57.0		79.8	77.8-122.1	7.53	30	
Beryllium	57.4	0.48	mg/Kg wet	67.5		85.0	82.3-117.7	10.3	30	
Copper	48.5	0.96	mg/Kg wet	56.4		86.0	80.4-119.6	12.4	30	
Nickel	51.4	0.96	mg/Kg wet	61.3		83.8	82.2-117.8	9.67	30	
Thallium	140	4.8	mg/Kg wet	178		78.4	78.2-121.6	8.86	30	
Zinc	167	1.9	mg/Kg wet	198		84.2	79.7-120.8	9.88	30	

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**QUALITY CONTROL**

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B181609 - % Solids</b>										
<b>Duplicate (B181609-DUP5)</b>	<b>Source: 17G0323-01</b>			Prepared: 07/14/17 Analyzed: 07/17/17						
% Solids	98.0		% Wt		98.4			0.407	20	
<b>Duplicate (B181609-DUP6)</b>	<b>Source: 17G0323-02</b>			Prepared: 07/14/17 Analyzed: 07/17/17						
% Solids	99.5		% Wt		99.7			0.201	20	



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**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
<i>SW-846 6010C-D in Soil</i>	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2018
RI	Rhode Island Department of Health	LAO00112	12/30/2017
NC	North Carolina Div. of Water Quality	652	12/31/2017
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2017
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2017
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018
NC-DW	North Carolina Department of Health	25703	07/31/2018

39 Spruce Street  
East Longmeadow, MA 01028

# CHAIN OF CUSTODY RECORD

Phone: 413-525-2332  
Fax: 413-525-6405  
Email: info@contestlabs.com  
www.contestlabs.com

1760323

Company Name: MARK A. GERMANO, LSP Telephone: (781) 837-1949  
Address: 15 PINEHURST RD. Project # DW CLARK  
MARSHFIELD, MA Client PO# \_\_\_\_\_

DATA DELIVERY (check all that apply)  
 FAX  EMAIL  WEBSITE  
Project Location: DW CLARK FOUNDRY, E  
Sampled By: L. KOSKA BRIDGEWATER MA Email: MGERMANO910@GMAIL

Format:  PDF  XCEL  OGIS  
 OTHER \_\_\_\_\_

Con-Test Lab ID <small>(laboratory use only)</small>	Client Sample ID / Description	Collection		Composite	Grab	*Matrix Code	Canic Code
		Beginning Date/Time	Ending Date/Time				
1	DISP - 7/10 - 1	7/10/17	1400	X		S	U
2	DISP - 7/10 - 2					I	I
3	DISP - 7/10 - 3					I	I
4	DISP - 7/10 - 4					I	I
5	DISP - 7/10 - 5					I	I

Project Proposal Provided? (for billing purposes)  
 yes \_\_\_\_\_ proposal date \_\_\_\_\_

Comments: \_\_\_\_\_

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:

H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time	Turnaround <sup>†</sup>	Detection Limit Requirements
<u>Mark Koska</u>	7/11/17	<input type="checkbox"/> 7-Day <input type="checkbox"/> 10-Day <input checked="" type="checkbox"/> Other <u>5</u>	Massachusetts: <u>METHOD 1</u> Connecticut: _____ Other: _____
<u>Mark Koska</u>	7-11-17 13:18	<b>RUSH <sup>†</sup></b> <input type="checkbox"/> 14-Hr <input type="checkbox"/> 148-Hr <input type="checkbox"/> 72-Hr <input type="checkbox"/> 14-Day	
<u>Mark Koska</u>	7-11-17 18:30	<b>Require lab approval</b>	
<u>Mark Koska</u>	7/11/17 1836		

# of Containers	** Preservation	*** Container Code	ANALYSIS REQUESTED
4	I	G	BERYLLIUM COPPER NICKEL THALLIUM ZINC
I			ARSENIC
G			

**Disolved Metals**  
 Field Filtered  
 Lab to Filter

**\*\*\*Cont. Code:**  
A=amber glass  
G=glass  
P=plastic  
ST=sterile  
V= vial  
S=summa can  
T=tetlar bag  
O=Other

**\*\*Preservation**  
I = Iced  
H = HCL  
M = Methanol  
N = Nitric Acid  
S = Sulfuric Acid  
B = Sodium bisulfate  
X = Na hydroxide  
T = Na thiosulfate  
O = Other

**\*Matrix Code:**  
GW= groundwater  
WW= wastewater  
DW= drinking water  
A = air  
S = soil/solid  
SL = sludge  
O = other

**Is your project MCP or RCP ?**  
 MCP Analytical Certification Form Required  
 RCP Analysis Certification Form Required  
 MA State DW Form Required PWSID # \_\_\_\_\_

**NECAC & AIHA Certified**  
**WBE/DBE Certified**

TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED. PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.  
 East Longmeadow, MA. 01028  
 P: 413-525-2332  
 F: 413-525-6405  
 www.contestlabs.com



**con-test**<sup>®</sup>  
 ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

Client Mark A Germano  
 Received By SM Date 7/11/17 Time 1836  
 How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
 Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
 Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 2.2  
 By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
 Was Custody Seal Intact? N/A Were Samples Tampered with? F  
 Was COC Relinquished? T Does Chain Agree With Samples? T  
 Are there broken/leaking/loose caps on any samples? F  
 Is COC in ink/ Legible? T Were samples received within holding time? T  
 Did COC include all pertinent Information? Client T Analysis T Sampler Name T  
 Project T ID's T Collection Dates/Times T  
 Are Sample labels filled out and legible? T  
 Are there Lab to Filters? N/A Who was notified? \_\_\_\_\_  
 Are there Rushes? N/A Who was notified? \_\_\_\_\_  
 Are there Short Holds? N/A Who was notified? \_\_\_\_\_  
 Is there enough Volume? T  
 Is there Headspace where applicable? N/A MS/MSD? N/A  
 Proper Media/Containers Used? N/A Is splitting samples required? N/A  
 Were trip blanks received? N/A On COC? N/A  
 Do all samples have the proper pH? N/A Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass	5	Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

**Unused Media**

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

## MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 17G0323
Project Location: DW Clark - East Bridgewater	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]  
17G0323-01 thru 17G0323-05

Matrices: Soil

**CAM Protocol (check all that below)**

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

**Affirmative response to Questions A through F is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E a</b>	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E b</b>	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

**A response to questions G, H and I below is required for "Presumptive Certainty" status**

<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
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**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup>All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.**

Signature: Tod Kopycinski Position: Laboratory Director  
Printed Name: Tod E. Kopycinski Date: 07/18/17

New England Testing Laboratory , Inc.  
(401) 353-3420

## REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number : 8B07007  
Client Project: DW Clark Foundry

Report Date: 13-February-2018

Prepared for:

Mark A Germano  
Mark A. Germano, LSP  
15 Pinehurst Rd  
Marshfield, MA 02050

---

Richard Warila, Laboratory Director  
New England Testing Laboratory, Inc.  
59 Greenhill Street  
West Warwick, RI 02893  
rich.warila@newenglandtesting.com

Project: DW Clark Foundry

Case Number: 8B07007

### Samples in this Report

<b>Lab ID</b>	<b>Sample</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>
8B07007-01	Disp-SUPP-1	Soil	02/05/2018	02/07/2018
8B07007-02	Disp-SUPP-2	Soil	02/05/2018	02/07/2018
8B07007-03	Disp-SUPP-3	Soil	02/05/2018	02/07/2018
8B07007-04	Disp-SUPP-4	Soil	02/05/2018	02/07/2018
8B07007-05	Disp-SUPP-5	Soil	02/05/2018	02/07/2018
8B07007-06	Disp-SUPP-6	Soil	02/05/2018	02/07/2018
8B07007-07	Disp-SUPP-7	Soil	02/05/2018	02/07/2018
8B07007-08	Disp-SUPP-8	Soil	02/05/2018	02/07/2018

Project: DW Clark Foundry

Case Number: 8B07007

## Request for Analysis

### Disp-SUPP-1

Analysis	Method
% Solids	Gravimetric
Arsenic	EPA 6010C
Barium	EPA 6010C
Selenium	EPA 6010C
Silver	EPA 6010C

### Disp-SUPP-2

Analysis	Method
% Solids	Gravimetric
Arsenic	EPA 6010C
Barium	EPA 6010C
Selenium	EPA 6010C
Silver	EPA 6010C

### Disp-SUPP-3

Analysis	Method
% Solids	Gravimetric
Arsenic	EPA 6010C

### Disp-SUPP-4

Analysis	Method
% Solids	Gravimetric
Arsenic	EPA 6010C

### Disp-SUPP-5

Analysis	Method
% Solids	Gravimetric
Arsenic	EPA 6010C

### Disp-SUPP-6

Analysis	Method
% Solids	Gravimetric
Arsenic	EPA 6010C



Project: DW Clark Foundry

Case Number: 8B07007

Disp-SUPP-7

Analysis

% Solids

Arsenic

Method

Gravimetric

EPA 6010C

Disp-SUPP-8

Analysis

% Solids

Arsenic

Method

Gravimetric

EPA 6010C



Project: DW Clark Foundry

Case Number: 8B07007

**Sample: Disp-SUPP-1**  
**8B07007-01 ()**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
<b>Total Metals</b>						
<b>Arsenic</b>	<b>1.12</b>		0.70	mg/kg	02/08/18	02/09/18
<b>Barium</b>	<b>3.30</b>		0.35	mg/kg	02/08/18	02/09/18
Selenium	ND		0.70	mg/kg	02/08/18	02/09/18
Silver	ND		0.35	mg/kg	02/08/18	02/12/18

Project: DW Clark Foundry

Case Number: 8B07007

**Sample: Disp-SUPP-2**  
**8B07007-02 ()**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
<b>Total Metals</b>						
<b>Arsenic</b>	<b>1.15</b>		0.69	mg/kg	02/08/18	02/09/18
<b>Barium</b>	<b>3.72</b>		0.34	mg/kg	02/08/18	02/09/18
Selenium	ND		0.69	mg/kg	02/08/18	02/09/18
Silver	ND		0.34	mg/kg	02/08/18	02/12/18

Project: DW Clark Foundry

Case Number: 8B07007

**Sample: Disp-SUPP-3**  
**8B07007-03 ()**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
<b>Total Metals</b>						
<b>Arsenic</b>	<b>0.82</b>		0.69	mg/kg	02/08/18	02/09/18

Project: DW Clark Foundry

Case Number: 8B07007

**Sample: Disp-SUPP-4**  
**8B07007-04 ()**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
<b>Total Metals</b>						
Arsenic	ND		0.69	mg/kg	02/08/18	02/09/18

Project: DW Clark Foundry

Case Number: 8B07007

**Sample: Disp-SUPP-5**  
**8B07007-05 ()**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
<b>Total Metals</b>						
<b>Arsenic</b>	<b>0.92</b>		0.69	mg/kg	02/08/18	02/09/18

Project: DW Clark Foundry

Case Number: 8B07007

**Sample: Disp-SUPP-6**  
**8B07007-06 ()**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
<b>Total Metals</b>						
Arsenic	ND		0.69	mg/kg	02/08/18	02/09/18



Project: DW Clark Foundry

Case Number: 8B07007

**Sample: Disp-SUPP-7**  
**8B07007-07 ()**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
<b>Total Metals</b>						
<b>Arsenic</b>	<b>1.42</b>		0.69	mg/kg	02/08/18	02/09/18

Project: DW Clark Foundry

Case Number: 8B07007

**Sample: Disp-SUPP-8**  
**8B07007-08 ()**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
<b>Total Metals</b>						
<b>Arsenic</b>	<b>1.19</b>		0.70	mg/kg	02/08/18	02/09/18

Project: DW Clark Foundry

Case Number: 8B07007

### Quality Control

#### Total Metals

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------

#### Batch: B8B0254 - Metals Digestion Soils

##### Blank (B8B0254-BLK1)

Prepared: 02/08/18 Analyzed: 02/09/18

Selenium	ND	0.66	mg/kg
Barium	ND	0.33	mg/kg
Arsenic	ND	0.66	mg/kg
Silver	ND	0.33	mg/kg

##### LCS (B8B0254-BS1)

Prepared: 02/08/18 Analyzed: 02/09/18

Selenium	13.7	0.66	mg/kg	13.3	103	85-115
Barium	67.4	0.33	mg/kg	66.7	101	85-115
Arsenic	14.5	0.66	mg/kg	13.3	108	85-115
Silver	24.5	0.33	mg/kg	26.7	91.8	85-115

Project: DW Clark Foundry

Case Number: 8B07007

### Notes and Definitions

<b>Item</b>	<b>Definition</b>
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.





*CERTIFICATE OF ANALYSIS*

Kevin Beaulieu  
Common Sense Environmental  
38 Elm Street  
New Bedford, MA 02740

**RE: Newport Navy Base (Pipe Work)**  
**ESS Laboratory Work Order Number: 1712539**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
Laboratory Director

**REVIEWED**  
*By ESS Laboratory at 3:38 pm, Jan 03, 2018*

**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**SAMPLE RECEIPT**

The following samples were received on December 22, 2017 for the analyses specified on the enclosed Chain of Custody Record.

**Revision 1 Janury 03 2018 : This report has been revised to include additional metals for PP13.**

<u>Lab Number</u>	<u>Sample Name</u>	<u>Matrix</u>	<u>Analysis</u>
1712539-01	STKPL BLDG A9 - A	Soil	8260B
1712539-02	STKPL BLDG 9	Soil	1010, 6010C, 6020A, 7.3.3.2, 7.3.4.1, 7471B, 8082A, 8100M, 8270D, 9045, 9050A



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**PROJECT NARRATIVE**

**5035/8260B Volatile Organic Compounds / Methanol**

CL72620-BS1 Blank Spike recovery is above upper control limit (B+).  
1,4-Dioxane - Screen (245% @ 44-241%)

**8270D Semi-Volatile Organic Compounds**

C7L0340-CCV1 Calibration required quadratic regression (Q).  
2,4-Dinitrophenol (95% @ 80-120%), 4,6-Dinitro-2-Methylphenol (93% @ 80-120%), Benzoic Acid (98% @ 80-120%), Pentachlorophenol (94% @ 80-120%)

C7L0340-CCV1 Initial Calibration Verification recovery is above upper control limit (ICV+).  
3+4-Methylphenol

C7L0362-CCV1 Calibration required quadratic regression (Q).  
2,4-Dinitrophenol (79% @ 80-120%), 4,6-Dinitro-2-Methylphenol (86% @ 80-120%), Benzoic Acid (90% @ 80-120%), Pentachlorophenol (114% @ 80-120%)

C7L0362-CCV1 Continuing Calibration %Diff/Drift is below control limit (CD-).  
2,4-Dinitrophenol (21% @ 20%)

C7L0365-CCV1 Calibration required quadratic regression (Q).  
2,4-Dinitrophenol (109% @ 80-120%), 4,6-Dinitro-2-Methylphenol (113% @ 80-120%), Benzoic Acid (111% @ 80-120%), Pentachlorophenol (106% @ 80-120%)

C7L0365-CCV1 Continuing Calibration %Diff/Drift is below control limit (CD-).  
Benzo(g,h,i)perylene (24% @ 20%)

**Classical Chemistry**

1712539-02 Test performed from a previously opened container  
Flashpoint

**No other observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

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[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)





*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**CURRENT SW-846 METHODOLOGY VERSIONS**

**Analytical Methods**

- 1010A - Flashpoint
- 6010C - ICP
- 6020A - ICP MS
- 7010 - Graphite Furnace
- 7196A - Hexavalent Chromium
- 7470A - Aqueous Mercury
- 7471B - Solid Mercury
- 8011 - EDB/DBCP/TCP
- 8015C - GRO/DRO
- 8081B - Pesticides
- 8082A - PCB
- 8100M - TPH
- 8151A - Herbicides
- 8260B - VOA
- 8270D - SVOA
- 8270D SIM - SVOA Low Level
- 9014 - Cyanide
- 9038 - Sulfate
- 9040C - Aqueous pH
- 9045D - Solid pH (Corrosivity)
- 9050A - Specific Conductance
- 9056A - Anions (IC)
- 9060A - TOC
- 9095B - Paint Filter
- MADEP 04-1.1 - EPH / VPH

**Prep Methods**

- 3005A - Aqueous ICP Digestion
- 3020A - Aqueous Graphite Furnace / ICP MS Digestion
- 3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
- 3060A - Solid Hexavalent Chromium Digestion
- 3510C - Separatory Funnel Extraction
- 3520C - Liquid / Liquid Extraction
- 3540C - Manual Soxhlet Extraction
- 3541 - Automated Soxhlet Extraction
- 3546 - Microwave Extraction
- 3580A - Waste Dilution
- 5030B - Aqueous Purge and Trap
- 5030C - Aqueous Purge and Trap
- 5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG A9 - A  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95  
Initial Volume: 18.9  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: MD

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1,1,2-Tetrachloroethane	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,1,1-Trichloroethane	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,1,2,2-Tetrachloroethane	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,1,2-Trichloroethane	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,1-Dichloroethane	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,1-Dichloroethene	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,1-Dichloropropene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2,3-Trichlorobenzene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2,3-Trichloropropane	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2,4-Trichlorobenzene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2,4-Trimethylbenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2-Dibromo-3-Chloropropane	ND (0.897)	0.179	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2-Dibromoethane	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2-Dichlorobenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2-Dichloroethane	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,2-Dichloropropane	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,3,5-Trimethylbenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,3-Dichlorobenzene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,3-Dichloropropane	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,4-Dichlorobenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
1,4-Dioxane - Screen	ND (35.9)	34.1	8260B		1	12/26/17 12:46	C7L0379	CL72620
1-Chlorohexane	ND (0.179)	0.0718	8260B		1	12/26/17 12:46	C7L0379	CL72620
2,2-Dichloropropane	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
2-Butanone	ND (0.897)	0.610	8260B		1	12/26/17 12:46	C7L0379	CL72620
2-Chlorotoluene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
2-Hexanone	ND (0.897)	0.269	8260B		1	12/26/17 12:46	C7L0379	CL72620
4-Chlorotoluene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
4-Isopropyltoluene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
4-Methyl-2-Pentanone	ND (0.897)	0.287	8260B		1	12/26/17 12:46	C7L0379	CL72620
Acetone	ND (0.897)	0.485	8260B		1	12/26/17 12:46	C7L0379	CL72620
Benzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Bromobenzene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG A9 - A  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95  
Initial Volume: 18.9  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: MD

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Bromochloromethane	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
Bromodichloromethane	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Bromoform	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Bromomethane	ND (0.179)	0.0718	8260B		1	12/26/17 12:46	C7L0379	CL72620
<b>Carbon Disulfide</b>	<b>J 0.0700</b> (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Carbon Tetrachloride	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Chlorobenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Chloroethane	ND (0.179)	0.0718	8260B		1	12/26/17 12:46	C7L0379	CL72620
Chloroform	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Chloromethane	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
cis-1,2-Dichloroethene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
cis-1,3-Dichloropropene	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
Dibromochloromethane	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Dibromomethane	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
Dichlorodifluoromethane	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
Diethyl Ether	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
Di-isopropyl ether	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Ethyl tertiary-butyl ether	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Ethylbenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Hexachlorobutadiene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Isopropylbenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Methyl tert-Butyl Ether	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
Methylene Chloride	ND (0.359)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Naphthalene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
n-Butylbenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
n-Propylbenzene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
sec-Butylbenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Styrene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
tert-Butylbenzene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Tertiary-amyl methyl ether	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Tetrachloroethene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Tetrahydrofuran	ND (0.897)	0.287	8260B		1	12/26/17 12:46	C7L0379	CL72620



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
 Client Project ID: Newport Navy Base  
 Client Sample ID: STKPL BLDG A9 - A  
 Date Sampled: 12/22/17 09:00  
 Percent Solids: 95  
 Initial Volume: 18.9  
 Final Volume: 15  
 Extraction Method: 5035

ESS Laboratory Work Order: 1712539  
 ESS Laboratory Sample ID: 1712539-01  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: MD

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Toluene	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
trans-1,2-Dichloroethene	ND (0.179)	0.0538	8260B		1	12/26/17 12:46	C7L0379	CL72620
trans-1,3-Dichloropropene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Trichloroethene	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Trichlorofluoromethane	ND (0.179)	0.0718	8260B		1	12/26/17 12:46	C7L0379	CL72620
Vinyl Acetate	ND (0.179)	0.0897	8260B		1	12/26/17 12:46	C7L0379	CL72620
Vinyl Chloride	ND (0.179)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Xylene O	ND (0.179)	0.0179	8260B		1	12/26/17 12:46	C7L0379	CL72620
Xylene P,M	ND (0.359)	0.0359	8260B		1	12/26/17 12:46	C7L0379	CL72620
Xylenes (Total)	ND (0.359)		8260B		1	12/26/17 12:46		[CALC]

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>89 %</i>		<i>70-130</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>93 %</i>		<i>70-130</i>
<i>Surrogate: Dibromofluoromethane</i>	<i>99 %</i>		<i>70-130</i>
<i>Surrogate: Toluene-d8</i>	<i>92 %</i>		<i>70-130</i>



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG 9  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-02  
Sample Matrix: Soil  
Units: mg/kg dry

Extraction Method: 3050B

**Total Metals**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (0.49)		6020A		20	NAR	12/27/17 11:50	2.17	100	CL72245
Arsenic	ND (2.44)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
<b>Barium</b>	<b>11.2</b> (2.44)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
<b>Beryllium</b>	<b>0.35</b> (0.11)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
Cadmium	ND (0.49)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
<b>Chromium</b>	<b>3.80</b> (0.97)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
<b>Copper</b>	<b>3.12</b> (2.44)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
Lead	ND (4.87)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
Mercury	ND (0.033)		7471B		1	MJV	12/27/17 12:38	0.64	40	CL72246
<b>Nickel</b>	<b>2.60</b> (2.44)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
Selenium	ND (1.95)		6020A		20	NAR	12/27/17 11:50	2.17	100	CL72245
Silver	ND (0.49)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245
<b>Zinc</b>	<b>17.2</b> (2.44)		6010C		1	BJV	12/26/17 23:06	2.17	100	CL72245



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG 9  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95  
Initial Volume: 19.2  
Final Volume: 10  
Extraction Method: 3540C

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-02  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: CAD  
Prepared: 12/22/17 16:30

**8082A Polychlorinated Biphenyls (PCB)**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.06)		8082A		1	12/26/17 20:45		CL72205
Aroclor 1221	ND (0.06)		8082A		1	12/26/17 20:45		CL72205
Aroclor 1232	ND (0.06)		8082A		1	12/26/17 20:45		CL72205
Aroclor 1242	ND (0.06)		8082A		1	12/26/17 20:45		CL72205
Aroclor 1248	ND (0.06)		8082A		1	12/26/17 20:45		CL72205
Aroclor 1254	ND (0.06)		8082A		1	12/26/17 20:45		CL72205
Aroclor 1260	ND (0.06)		8082A		1	12/26/17 20:45		CL72205
Aroclor 1262	ND (0.06)		8082A		1	12/26/17 20:45		CL72205
Aroclor 1268	ND (0.06)		8082A		1	12/26/17 20:45		CL72205

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	74 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	86 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	77 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	90 %		30-150



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG 9  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95  
Initial Volume: 19.6  
Final Volume: 1  
Extraction Method: 3546

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-02  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: SMR  
Prepared: 12/25/17 15:03

**8100M Total Petroleum Hydrocarbons**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Total Petroleum Hydrocarbons	ND (40.5)		8100M		1	12/26/17 18:17	C7L0375	CL72209
		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				
<i>Surrogate: O-Terphenyl</i>		<i>92 %</i>		<i>40-140</i>				



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG 9  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95  
Initial Volume: 14.5  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-02  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: TJ  
Prepared: 12/22/17 15:03

**8270D Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1-Biphenyl	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
1,2,4-Trichlorobenzene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
1,2-Dichlorobenzene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
1,3-Dichlorobenzene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
1,4-Dichlorobenzene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2,3,4,6-Tetrachlorophenol	ND (1.83)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2,4,5-Trichlorophenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2,4,6-Trichlorophenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2,4-Dichlorophenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2,4-Dimethylphenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2,4-Dinitrophenol	ND (1.83)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2,4-Dinitrotoluene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2,6-Dinitrotoluene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2-Chloronaphthalene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2-Chlorophenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2-Methylnaphthalene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2-Methylphenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2-Nitroaniline	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
2-Nitrophenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
3,3'-Dichlorobenzidene	ND (0.730)		8270D		1	12/26/17 17:50	C7L0365	CL72208
3+4-Methylphenol	ND (0.730)		8270D		1	12/26/17 17:50	C7L0365	CL72208
3-Nitroaniline	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
4,6-Dinitro-2-Methylphenol	ND (1.83)		8270D		1	12/26/17 17:50	C7L0365	CL72208
4-Bromophenyl-phenylether	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
4-Chloro-3-Methylphenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
4-Chloroaniline	ND (0.730)		8270D		1	12/26/17 17:50	C7L0365	CL72208
4-Chloro-phenyl-phenyl ether	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
4-Nitroaniline	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
4-Nitrophenol	ND (1.83)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Acenaphthene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Acenaphthylene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Acetophenone	ND (0.730)		8270D		1	12/26/17 17:50	C7L0365	CL72208





*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG 9  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95  
Initial Volume: 14.5  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-02  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: TJ  
Prepared: 12/22/17 15:03

**8270D Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aniline	ND (0.730)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Anthracene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Azobenzene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Benzo(a)anthracene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Benzo(a)pyrene	ND (0.183)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Benzo(b)fluoranthene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Benzo(g,h,i)perylene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Benzo(k)fluoranthene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Benzoic Acid	ND (1.83)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Benzyl Alcohol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
bis(2-Chloroethoxy)methane	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
bis(2-Chloroethyl)ether	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
bis(2-chloroisopropyl)Ether	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
bis(2-Ethylhexyl)phthalate	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Butylbenzylphthalate	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Carbazole	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Chrysene	ND (0.183)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Dibenzo(a,h)Anthracene	ND (0.183)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Dibenzofuran	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Diethylphthalate	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Dimethylphthalate	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Di-n-butylphthalate	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Di-n-octylphthalate	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Fluoranthene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Fluorene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Hexachlorobenzene	ND (0.183)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Hexachlorobutadiene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Hexachlorocyclopentadiene	ND (1.83)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Hexachloroethane	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Indeno(1,2,3-cd)Pyrene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Isophorone	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Naphthalene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG 9  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95  
Initial Volume: 14.5  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-02  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: TJ  
Prepared: 12/22/17 15:03

**8270D Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Nitrobenzene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
N-Nitrosodimethylamine	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
N-Nitroso-Di-n-Propylamine	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
N-nitrosodiphenylamine	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Pentachlorophenol	ND (1.83)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Phenanthrene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Phenol	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Pyrene	ND (0.364)		8270D		1	12/26/17 17:50	C7L0365	CL72208
Pyridine	ND (1.83)		8270D		1	12/26/17 17:50	C7L0365	CL72208

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	69 %		30-130
<i>Surrogate: 2,4,6-Tribromophenol</i>	67 %		30-130
<i>Surrogate: 2-Chlorophenol-d4</i>	75 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	73 %		30-130
<i>Surrogate: 2-Fluorophenol</i>	75 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	72 %		30-130
<i>Surrogate: Phenol-d6</i>	77 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	74 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base  
Client Sample ID: STKPL BLDG 9  
Date Sampled: 12/22/17 09:00  
Percent Solids: 95

ESS Laboratory Work Order: 1712539  
ESS Laboratory Sample ID: 1712539-02  
Sample Matrix: Soil

**Classical Chemistry**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>	<u>Batch</u>
Conductivity	WL 198 (5)		9050A		1	PMH	12/26/17 19:20	umhos/cm	CL72636
Corrosivity (pH)	9.45 (N/A)		9045		1	JLK	12/22/17 22:25	S.U.	CL72248
Corrosivity (pH) Sample Temp	Soil pH measured in water at 19.8 °C.								
Flashpoint	>, O 200 (N/A)		1010		1	LAB	12/27/17 15:10	°F	CL72727
Reactive Cyanide	ND (2.0)		7.3.3.2		1	JLK	12/22/17 18:16	mg/kg	CL72241
Reactive Sulfide	ND (2.0)		7.3.4.1		1	JLK	12/22/17 18:16	mg/kg	CL72241



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**Total Metals**

**Batch CL72245 - 3050B**

**Blank**

Antimony	ND	0.50	mg/kg wet
Arsenic	ND	2.50	mg/kg wet
Barium	ND	2.50	mg/kg wet
Beryllium	ND	0.11	mg/kg wet
Cadmium	ND	0.50	mg/kg wet
Chromium	ND	1.00	mg/kg wet
Copper	ND	2.50	mg/kg wet
Lead	ND	5.00	mg/kg wet
Nickel	ND	2.50	mg/kg wet
Selenium	ND	2.00	mg/kg wet
Silver	ND	0.50	mg/kg wet
Thallium	ND	0.50	mg/kg wet
Zinc	ND	2.50	mg/kg wet

**LCS**

Antimony	62.2	4.39	mg/kg wet	48.00	130	0-238
Arsenic	112	8.77	mg/kg wet	123.0	91	80-120
Barium	220	8.77	mg/kg wet	253.0	87	80-120
Beryllium	166	0.39	mg/kg wet	192.0	86	80-120
Cadmium	185	1.75	mg/kg wet	224.0	82	80-120
Chromium	159	3.51	mg/kg wet	179.0	89	80-120
Copper	69.0	8.77	mg/kg wet	78.90	87	80-120
Lead	131	17.5	mg/kg wet	145.0	90	80-120
Nickel	115	8.77	mg/kg wet	143.0	81	80-120
Selenium	40.4	17.5	mg/kg wet	42.40	95	80-120
Silver	77.8	1.75	mg/kg wet	81.60	95	80-120
Thallium	50.0	4.39	mg/kg wet	52.00	96	80-120
Zinc	659	8.77	mg/kg wet	770.0	86	80-120

**LCS Dup**

Antimony	62.7	4.24	mg/kg wet	48.00	131	0-238	0.8	30
Arsenic	113	8.47	mg/kg wet	123.0	92	80-120	0.6	20
Barium	236	8.47	mg/kg wet	253.0	93	80-120	7	20
Beryllium	170	0.37	mg/kg wet	192.0	88	80-120	2	20
Cadmium	188	1.69	mg/kg wet	224.0	84	80-120	2	20
Chromium	162	3.39	mg/kg wet	179.0	90	80-120	1	20
Copper	71.6	8.47	mg/kg wet	78.90	91	80-120	4	20
Lead	135	16.9	mg/kg wet	145.0	93	80-120	3	20
Nickel	120	8.47	mg/kg wet	143.0	84	80-120	4	20
Selenium	39.1	16.9	mg/kg wet	42.40	92	80-120	3	30
Silver	78.6	1.69	mg/kg wet	81.60	96	80-120	1	20
Thallium	49.3	4.24	mg/kg wet	52.00	95	80-120	2	30
Zinc	677	8.47	mg/kg wet	770.0	88	80-120	3	20

**Batch CL72246 - 7471B**

**Blank**



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**Total Metals**

**Batch CL72246 - 7471B**

Mercury	ND	0.033	mg/kg wet							
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**LCS**

Mercury	15.8	1.80	mg/kg wet	17.80		89	80-120			
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**LCS Dup**

Mercury	17.3	1.83	mg/kg wet	17.80		97	80-120	9	20	
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**5035/8260B Volatile Organic Compounds / Methanol**

**Batch CL72620 - 5035**

**Blank**

1,1,1,2-Tetrachloroethane	ND	0.200	mg/kg wet							
1,1,1-Trichloroethane	ND	0.200	mg/kg wet							
1,1,2,2-Tetrachloroethane	ND	0.200	mg/kg wet							
1,1,2-Trichloroethane	ND	0.200	mg/kg wet							
1,1-Dichloroethane	ND	0.200	mg/kg wet							
1,1-Dichloroethene	ND	0.200	mg/kg wet							
1,1-Dichloropropene	ND	0.200	mg/kg wet							
1,2,3-Trichlorobenzene	ND	0.200	mg/kg wet							
1,2,3-Trichloropropane	ND	0.200	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.200	mg/kg wet							
1,2,4-Trimethylbenzene	ND	0.200	mg/kg wet							
1,2-Dibromo-3-Chloropropane	ND	1.00	mg/kg wet							
1,2-Dibromoethane	ND	0.200	mg/kg wet							
1,2-Dichlorobenzene	ND	0.200	mg/kg wet							
1,2-Dichloroethane	ND	0.200	mg/kg wet							
1,2-Dichloropropane	ND	0.200	mg/kg wet							
1,3,5-Trimethylbenzene	ND	0.200	mg/kg wet							
1,3-Dichlorobenzene	ND	0.200	mg/kg wet							
1,3-Dichloropropane	ND	0.200	mg/kg wet							
1,4-Dichlorobenzene	ND	0.200	mg/kg wet							
1,4-Dioxane - Screen	ND	40.0	mg/kg wet							
1-Chlorohexane	ND	0.200	mg/kg wet							
2,2-Dichloropropane	ND	0.200	mg/kg wet							
2-Butanone	ND	1.00	mg/kg wet							
2-Chlorotoluene	ND	0.200	mg/kg wet							
2-Hexanone	ND	1.00	mg/kg wet							
4-Chlorotoluene	ND	0.200	mg/kg wet							
4-Isopropyltoluene	ND	0.200	mg/kg wet							
4-Methyl-2-Pentanone	ND	1.00	mg/kg wet							
Acetone	ND	1.00	mg/kg wet							
Benzene	ND	0.200	mg/kg wet							
Bromobenzene	ND	0.200	mg/kg wet							
Bromochloromethane	ND	0.200	mg/kg wet							
Bromodichloromethane	ND	0.200	mg/kg wet							
Bromoform	ND	0.200	mg/kg wet							



CERTIFICATE OF ANALYSIS

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch CL72620 - 5035**

Bromomethane	ND	0.200	mg/kg wet							
Carbon Disulfide	ND	0.200	mg/kg wet							
Carbon Tetrachloride	ND	0.200	mg/kg wet							
Chlorobenzene	ND	0.200	mg/kg wet							
Chloroethane	ND	0.200	mg/kg wet							
Chloroform	ND	0.200	mg/kg wet							
Chloromethane	ND	0.200	mg/kg wet							
cis-1,2-Dichloroethene	ND	0.200	mg/kg wet							
cis-1,3-Dichloropropene	ND	0.200	mg/kg wet							
Dibromochloromethane	ND	0.200	mg/kg wet							
Dibromomethane	ND	0.200	mg/kg wet							
Dichlorodifluoromethane	ND	0.200	mg/kg wet							
Diethyl Ether	ND	0.200	mg/kg wet							
Di-isopropyl ether	ND	0.200	mg/kg wet							
Ethyl tertiary-butyl ether	ND	0.200	mg/kg wet							
Ethylbenzene	ND	0.200	mg/kg wet							
Hexachlorobutadiene	ND	0.200	mg/kg wet							
Isopropylbenzene	ND	0.200	mg/kg wet							
Methyl tert-Butyl Ether	ND	0.200	mg/kg wet							
Methylene Chloride	ND	0.400	mg/kg wet							
Naphthalene	ND	0.200	mg/kg wet							
n-Butylbenzene	ND	0.200	mg/kg wet							
n-Propylbenzene	ND	0.200	mg/kg wet							
sec-Butylbenzene	ND	0.200	mg/kg wet							
Styrene	ND	0.200	mg/kg wet							
tert-Butylbenzene	ND	0.200	mg/kg wet							
Tertiary-amyl methyl ether	ND	0.200	mg/kg wet							
Tetrachloroethene	ND	0.200	mg/kg wet							
Tetrahydrofuran	ND	1.00	mg/kg wet							
Toluene	ND	0.200	mg/kg wet							
trans-1,2-Dichloroethene	ND	0.200	mg/kg wet							
trans-1,3-Dichloropropene	ND	0.200	mg/kg wet							
Trichloroethene	ND	0.200	mg/kg wet							
Vinyl Acetate	ND	0.200	mg/kg wet							
Vinyl Chloride	ND	0.200	mg/kg wet							
Xylene O	ND	0.200	mg/kg wet							
Xylene P,M	ND	0.400	mg/kg wet							
Xylenes (Total)	ND	0.400	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	4.98		mg/kg wet	5.000		100	70-130			
Surrogate: 4-Bromofluorobenzene	4.79		mg/kg wet	5.000		96	70-130			
Surrogate: Dibromofluoromethane	5.38		mg/kg wet	5.000		108	70-130			
Surrogate: Toluene-d8	4.92		mg/kg wet	5.000		98	70-130			

**LCS**

1,1,1,2-Tetrachloroethane	2.09	0.200	mg/kg wet	2.000		104	70-130			
1,1,1-Trichloroethane	1.78	0.200	mg/kg wet	2.000		89	70-130			



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch CL72620 - 5035**

1,1,2,2-Tetrachloroethane	2.04	0.200	mg/kg wet	2.000		102	70-130			
1,1,2-Trichloroethane	1.83	0.200	mg/kg wet	2.000		91	70-130			
1,1-Dichloroethane	1.64	0.200	mg/kg wet	2.000		82	70-130			
1,1-Dichloroethene	1.80	0.200	mg/kg wet	2.000		90	70-130			
1,1-Dichloropropene	1.77	0.200	mg/kg wet	2.000		88	70-130			
1,2,3-Trichlorobenzene	2.22	0.200	mg/kg wet	2.000		111	70-130			
1,2,3-Trichloropropane	1.98	0.200	mg/kg wet	2.000		99	70-130			
1,2,4-Trichlorobenzene	2.25	0.200	mg/kg wet	2.000		112	70-130			
1,2,4-Trimethylbenzene	1.97	0.200	mg/kg wet	2.000		98	70-130			
1,2-Dibromo-3-Chloropropane	2.15	1.00	mg/kg wet	2.000		108	70-130			
1,2-Dibromoethane	1.99	0.200	mg/kg wet	2.000		100	70-130			
1,2-Dichlorobenzene	2.19	0.200	mg/kg wet	2.000		110	70-130			
1,2-Dichloroethane	1.88	0.200	mg/kg wet	2.000		94	70-130			
1,2-Dichloropropane	1.82	0.200	mg/kg wet	2.000		91	70-130			
1,3,5-Trimethylbenzene	2.01	0.200	mg/kg wet	2.000		101	70-130			
1,3-Dichlorobenzene	2.13	0.200	mg/kg wet	2.000		107	70-130			
1,3-Dichloropropane	1.99	0.200	mg/kg wet	2.000		100	70-130			
1,4-Dichlorobenzene	2.16	0.200	mg/kg wet	2.000		108	70-130			
1,4-Dioxane - Screen	98.0	40.0	mg/kg wet	40.00		245	44-241			B+
1-Chlorohexane	1.90	0.200	mg/kg wet	2.000		95	70-130			
2,2-Dichloropropane	1.76	0.200	mg/kg wet	2.000		88	70-130			
2-Butanone	9.49	1.00	mg/kg wet	10.00		95	70-130			
2-Chlorotoluene	1.93	0.200	mg/kg wet	2.000		97	70-130			
2-Hexanone	9.96	1.00	mg/kg wet	10.00		100	70-130			
4-Chlorotoluene	1.90	0.200	mg/kg wet	2.000		95	70-130			
4-Isopropyltoluene	2.13	0.200	mg/kg wet	2.000		107	70-130			
4-Methyl-2-Pentanone	8.77	1.00	mg/kg wet	10.00		88	70-130			
Acetone	10.0	1.00	mg/kg wet	10.00		100	70-130			
Benzene	1.74	0.200	mg/kg wet	2.000		87	70-130			
Bromobenzene	2.16	0.200	mg/kg wet	2.000		108	70-130			
Bromochloromethane	1.81	0.200	mg/kg wet	2.000		91	70-130			
Bromodichloromethane	1.65	0.200	mg/kg wet	2.000		82	70-130			
Bromoform	1.88	0.200	mg/kg wet	2.000		94	70-130			
Bromomethane	1.70	0.200	mg/kg wet	2.000		85	70-130			
Carbon Disulfide	1.87	0.200	mg/kg wet	2.000		94	70-130			
Carbon Tetrachloride	1.95	0.200	mg/kg wet	2.000		97	70-130			
Chlorobenzene	2.02	0.200	mg/kg wet	2.000		101	70-130			
Chloroethane	1.87	0.200	mg/kg wet	2.000		94	70-130			
Chloroform	1.87	0.200	mg/kg wet	2.000		94	70-130			
Chloromethane	1.64	0.200	mg/kg wet	2.000		82	70-130			
cis-1,2-Dichloroethene	1.78	0.200	mg/kg wet	2.000		89	70-130			
cis-1,3-Dichloropropene	1.88	0.200	mg/kg wet	2.000		94	70-130			
Dibromochloromethane	1.97	0.200	mg/kg wet	2.000		99	70-130			
Dibromomethane	1.79	0.200	mg/kg wet	2.000		90	70-130			
Dichlorodifluoromethane	1.84	0.200	mg/kg wet	2.000		92	70-130			



CERTIFICATE OF ANALYSIS

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch CL72620 - 5035**

Diethyl Ether	1.80	0.200	mg/kg wet	2.000		90	70-130			
Di-isopropyl ether	1.75	0.200	mg/kg wet	2.000		88	70-130			
Ethyl tertiary-butyl ether	1.69	0.200	mg/kg wet	2.000		85	70-130			
Ethylbenzene	1.88	0.200	mg/kg wet	2.000		94	70-130			
Hexachlorobutadiene	2.18	0.200	mg/kg wet	2.000		109	70-130			
Isopropylbenzene	1.94	0.200	mg/kg wet	2.000		97	70-130			
Methyl tert-Butyl Ether	1.84	0.200	mg/kg wet	2.000		92	70-130			
Methylene Chloride	1.69	0.400	mg/kg wet	2.000		84	70-130			
Naphthalene	2.14	0.200	mg/kg wet	2.000		107	70-130			
n-Butylbenzene	1.96	0.200	mg/kg wet	2.000		98	70-130			
n-Propylbenzene	1.98	0.200	mg/kg wet	2.000		99	70-130			
sec-Butylbenzene	2.07	0.200	mg/kg wet	2.000		104	70-130			
Styrene	1.97	0.200	mg/kg wet	2.000		98	70-130			
tert-Butylbenzene	2.04	0.200	mg/kg wet	2.000		102	70-130			
Tertiary-amyl methyl ether	1.74	0.200	mg/kg wet	2.000		87	70-130			
Tetrachloroethene	1.65	0.200	mg/kg wet	2.000		82	70-130			
Tetrahydrofuran	1.79	1.00	mg/kg wet	2.000		90	70-130			
Toluene	1.81	0.200	mg/kg wet	2.000		90	70-130			
trans-1,2-Dichloroethene	1.83	0.200	mg/kg wet	2.000		92	70-130			
trans-1,3-Dichloropropene	1.69	0.200	mg/kg wet	2.000		84	70-130			
Trichloroethene	1.83	0.200	mg/kg wet	2.000		92	70-130			
Vinyl Acetate	1.86	0.200	mg/kg wet	2.000		93	70-130			
Vinyl Chloride	1.74	0.200	mg/kg wet	2.000		87	70-130			
Xylene O	1.99	0.200	mg/kg wet	2.000		100	70-130			
Xylene P,M	3.98	0.400	mg/kg wet	4.000		100	70-130			
Xylenes (Total)	5.97	0.400	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	4.72		mg/kg wet	5.000		94	70-130			
Surrogate: 4-Bromofluorobenzene	5.13		mg/kg wet	5.000		103	70-130			
Surrogate: Dibromofluoromethane	5.22		mg/kg wet	5.000		104	70-130			
Surrogate: Toluene-d8	5.13		mg/kg wet	5.000		103	70-130			

**LCS Dup**

1,1,1,2-Tetrachloroethane	2.02	0.200	mg/kg wet	2.000		101	70-130	3	25	
1,1,1-Trichloroethane	1.76	0.200	mg/kg wet	2.000		88	70-130	0.9	25	
1,1,2,2-Tetrachloroethane	2.07	0.200	mg/kg wet	2.000		103	70-130	1	25	
1,1,2-Trichloroethane	1.78	0.200	mg/kg wet	2.000		89	70-130	2	25	
1,1-Dichloroethane	1.74	0.200	mg/kg wet	2.000		87	70-130	6	25	
1,1-Dichloroethene	1.75	0.200	mg/kg wet	2.000		88	70-130	3	25	
1,1-Dichloropropene	1.77	0.200	mg/kg wet	2.000		88	70-130	0	25	
1,2,3-Trichlorobenzene	2.15	0.200	mg/kg wet	2.000		108	70-130	3	25	
1,2,3-Trichloropropane	1.97	0.200	mg/kg wet	2.000		98	70-130	0.7	25	
1,2,4-Trichlorobenzene	2.04	0.200	mg/kg wet	2.000		102	70-130	10	25	
1,2,4-Trimethylbenzene	1.98	0.200	mg/kg wet	2.000		99	70-130	0.8	25	
1,2-Dibromo-3-Chloropropane	2.24	1.00	mg/kg wet	2.000		112	70-130	4	25	
1,2-Dibromoethane	1.96	0.200	mg/kg wet	2.000		98	70-130	2	25	
1,2-Dichlorobenzene	2.15	0.200	mg/kg wet	2.000		108	70-130	2	25	





*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch CL72620 - 5035**

1,2-Dichloroethane	1.85	0.200	mg/kg wet	2.000		92	70-130	2	25	
1,2-Dichloropropane	1.79	0.200	mg/kg wet	2.000		90	70-130	2	25	
1,3,5-Trimethylbenzene	1.95	0.200	mg/kg wet	2.000		98	70-130	3	25	
1,3-Dichlorobenzene	2.08	0.200	mg/kg wet	2.000		104	70-130	2	25	
1,3-Dichloropropane	1.87	0.200	mg/kg wet	2.000		94	70-130	6	25	
1,4-Dichlorobenzene	2.09	0.200	mg/kg wet	2.000		104	70-130	3	25	
1,4-Dioxane - Screen	71.8	40.0	mg/kg wet	40.00		180	44-241	31	200	
1-Chlorohexane	1.83	0.200	mg/kg wet	2.000		92	70-130	4	25	
2,2-Dichloropropane	1.68	0.200	mg/kg wet	2.000		84	70-130	5	25	
2-Butanone	8.83	1.00	mg/kg wet	10.00		88	70-130	7	25	
2-Chlorotoluene	1.80	0.200	mg/kg wet	2.000		90	70-130	7	25	
2-Hexanone	8.90	1.00	mg/kg wet	10.00		89	70-130	11	25	
4-Chlorotoluene	1.87	0.200	mg/kg wet	2.000		93	70-130	2	25	
4-Isopropyltoluene	2.01	0.200	mg/kg wet	2.000		100	70-130	6	25	
4-Methyl-2-Pentanone	8.27	1.00	mg/kg wet	10.00		83	70-130	6	25	
Acetone	9.01	1.00	mg/kg wet	10.00		90	70-130	11	25	
Benzene	1.80	0.200	mg/kg wet	2.000		90	70-130	3	25	
Bromobenzene	2.06	0.200	mg/kg wet	2.000		103	70-130	5	25	
Bromochloromethane	1.98	0.200	mg/kg wet	2.000		99	70-130	9	25	
Bromodichloromethane	1.62	0.200	mg/kg wet	2.000		81	70-130	1	25	
Bromoform	1.95	0.200	mg/kg wet	2.000		97	70-130	3	25	
Bromomethane	1.75	0.200	mg/kg wet	2.000		87	70-130	2	25	
Carbon Disulfide	1.90	0.200	mg/kg wet	2.000		95	70-130	1	25	
Carbon Tetrachloride	1.91	0.200	mg/kg wet	2.000		96	70-130	2	25	
Chlorobenzene	2.01	0.200	mg/kg wet	2.000		100	70-130	0.7	25	
Chloroethane	1.67	0.200	mg/kg wet	2.000		83	70-130	12	25	
Chloroform	1.82	0.200	mg/kg wet	2.000		91	70-130	3	25	
Chloromethane	1.56	0.200	mg/kg wet	2.000		78	70-130	5	25	
cis-1,2-Dichloroethene	1.75	0.200	mg/kg wet	2.000		88	70-130	2	25	
cis-1,3-Dichloropropene	1.81	0.200	mg/kg wet	2.000		91	70-130	4	25	
Dibromochloromethane	1.84	0.200	mg/kg wet	2.000		92	70-130	7	25	
Dibromomethane	1.73	0.200	mg/kg wet	2.000		87	70-130	3	25	
Dichlorodifluoromethane	1.89	0.200	mg/kg wet	2.000		94	70-130	2	25	
Diethyl Ether	1.77	0.200	mg/kg wet	2.000		88	70-130	2	25	
Di-isopropyl ether	1.68	0.200	mg/kg wet	2.000		84	70-130	5	25	
Ethyl tertiary-butyl ether	1.69	0.200	mg/kg wet	2.000		84	70-130	0.4	25	
Ethylbenzene	1.85	0.200	mg/kg wet	2.000		93	70-130	2	25	
Hexachlorobutadiene	2.07	0.200	mg/kg wet	2.000		103	70-130	5	25	
Isopropylbenzene	1.93	0.200	mg/kg wet	2.000		97	70-130	0.2	25	
Methyl tert-Butyl Ether	1.78	0.200	mg/kg wet	2.000		89	70-130	4	25	
Methylene Chloride	1.69	0.400	mg/kg wet	2.000		85	70-130	0.5	25	
Naphthalene	2.03	0.200	mg/kg wet	2.000		102	70-130	5	25	
n-Butylbenzene	1.94	0.200	mg/kg wet	2.000		97	70-130	1	25	
n-Propylbenzene	2.01	0.200	mg/kg wet	2.000		101	70-130	2	25	
sec-Butylbenzene	2.01	0.200	mg/kg wet	2.000		100	70-130	3	25	



CERTIFICATE OF ANALYSIS

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch CL72620 - 5035**

Styrene	1.94	0.200	mg/kg wet	2.000		97	70-130	2	25	
tert-Butylbenzene	2.10	0.200	mg/kg wet	2.000		105	70-130	3	25	
Tertiary-amyl methyl ether	1.62	0.200	mg/kg wet	2.000		81	70-130	7	25	
Tetrachloroethene	1.61	0.200	mg/kg wet	2.000		81	70-130	2	25	
Tetrahydrofuran	1.62	1.00	mg/kg wet	2.000		81	70-130	10	25	
Toluene	1.78	0.200	mg/kg wet	2.000		89	70-130	2	25	
trans-1,2-Dichloroethene	1.84	0.200	mg/kg wet	2.000		92	70-130	0.5	25	
trans-1,3-Dichloropropene	1.61	0.200	mg/kg wet	2.000		81	70-130	4	25	
Trichloroethene	1.79	0.200	mg/kg wet	2.000		90	70-130	2	25	
Vinyl Acetate	1.81	0.200	mg/kg wet	2.000		90	70-130	3	25	
Vinyl Chloride	1.73	0.200	mg/kg wet	2.000		86	70-130	0.7	25	
Xylene O	2.06	0.200	mg/kg wet	2.000		103	70-130	3	25	
Xylene P,M	3.86	0.400	mg/kg wet	4.000		97	70-130	3	25	
Xylenes (Total)	5.92	0.400	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	4.63		mg/kg wet	5.000		93	70-130			
Surrogate: 4-Bromofluorobenzene	5.16		mg/kg wet	5.000		103	70-130			
Surrogate: Dibromofluoromethane	5.21		mg/kg wet	5.000		104	70-130			
Surrogate: Toluene-d8	5.08		mg/kg wet	5.000		102	70-130			

8082A Polychlorinated Biphenyls (PCB)

**Batch CL72205 - 3540C**

<b>Blank</b>										
Aroclor 1016	ND	0.05	mg/kg wet							
Aroclor 1016 [2C]	ND	0.05	mg/kg wet							
Aroclor 1221	ND	0.05	mg/kg wet							
Aroclor 1221 [2C]	ND	0.05	mg/kg wet							
Aroclor 1232	ND	0.05	mg/kg wet							
Aroclor 1232 [2C]	ND	0.05	mg/kg wet							
Aroclor 1242	ND	0.05	mg/kg wet							
Aroclor 1242 [2C]	ND	0.05	mg/kg wet							
Aroclor 1248	ND	0.05	mg/kg wet							
Aroclor 1248 [2C]	ND	0.05	mg/kg wet							
Aroclor 1254	ND	0.05	mg/kg wet							
Aroclor 1254 [2C]	ND	0.05	mg/kg wet							
Aroclor 1260	ND	0.05	mg/kg wet							
Aroclor 1260 [2C]	ND	0.05	mg/kg wet							
Aroclor 1262	ND	0.05	mg/kg wet							
Aroclor 1262 [2C]	ND	0.05	mg/kg wet							
Aroclor 1268	ND	0.05	mg/kg wet							
Aroclor 1268 [2C]	ND	0.05	mg/kg wet							

Surrogate: Decachlorobiphenyl	0.0181		mg/kg wet	0.02500		73	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0227		mg/kg wet	0.02500		91	30-150			
Surrogate: Tetrachloro-m-xylene	0.0187		mg/kg wet	0.02500		75	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0217		mg/kg wet	0.02500		87	30-150			



CERTIFICATE OF ANALYSIS

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8082A Polychlorinated Biphenyls (PCB)

**Batch CL72205 - 3540C**

**LCS**

Aroclor 1016	0.4	0.05	mg/kg wet	0.5000		83	40-140			
Aroclor 1016 [2C]	0.5	0.05	mg/kg wet	0.5000		92	40-140			
Aroclor 1260	0.4	0.05	mg/kg wet	0.5000		84	40-140			
Aroclor 1260 [2C]	0.5	0.05	mg/kg wet	0.5000		91	40-140			
Surrogate: Decachlorobiphenyl	0.0217		mg/kg wet	0.02500		87	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0273		mg/kg wet	0.02500		109	30-150			
Surrogate: Tetrachloro-m-xylene	0.0199		mg/kg wet	0.02500		80	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0218		mg/kg wet	0.02500		87	30-150			

**LCS Dup**

Aroclor 1016	0.4	0.05	mg/kg wet	0.5000		83	40-140	0.06	30	
Aroclor 1016 [2C]	0.5	0.05	mg/kg wet	0.5000		93	40-140	1	30	
Aroclor 1260	0.4	0.05	mg/kg wet	0.5000		84	40-140	0.4	30	
Aroclor 1260 [2C]	0.5	0.05	mg/kg wet	0.5000		95	40-140	4	30	
Surrogate: Decachlorobiphenyl	0.0219		mg/kg wet	0.02500		87	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0260		mg/kg wet	0.02500		104	30-150			
Surrogate: Tetrachloro-m-xylene	0.0202		mg/kg wet	0.02500		81	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0221		mg/kg wet	0.02500		88	30-150			

8100M Total Petroleum Hydrocarbons

**Batch CL72209 - 3546**

**Blank**

Decane (C10)	ND	0.2	mg/kg wet							
Docosane (C22)	ND	0.2	mg/kg wet							
Dodecane (C12)	ND	0.2	mg/kg wet							
Eicosane (C20)	ND	0.2	mg/kg wet							
Hexacosane (C26)	ND	0.2	mg/kg wet							
Hexadecane (C16)	ND	0.2	mg/kg wet							
Nonadecane (C19)	ND	0.2	mg/kg wet							
Nonane (C9)	ND	0.2	mg/kg wet							
Octacosane (C28)	ND	0.2	mg/kg wet							
Octadecane (C18)	ND	0.2	mg/kg wet							
Tetracosane (C24)	ND	0.2	mg/kg wet							
Tetradecane (C14)	ND	0.2	mg/kg wet							
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet							
Triacontane (C30)	ND	0.2	mg/kg wet							

Surrogate: O-Terphenyl	4.85		mg/kg wet	5.000		97	40-140			
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**LCS**

Decane (C10)	2.1	0.2	mg/kg wet	2.500		86	40-140			
Docosane (C22)	2.5	0.2	mg/kg wet	2.500		100	40-140			
Dodecane (C12)	2.3	0.2	mg/kg wet	2.500		92	40-140			
Eicosane (C20)	2.5	0.2	mg/kg wet	2.500		98	40-140			



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**8100M Total Petroleum Hydrocarbons**

**Batch CL72209 - 3546**

Hexacosane (C26)	2.5	0.2	mg/kg wet	2.500		99	40-140			
Hexadecane (C16)	2.4	0.2	mg/kg wet	2.500		97	40-140			
Nonadecane (C19)	2.7	0.2	mg/kg wet	2.500		110	40-140			
Nonane (C9)	1.8	0.2	mg/kg wet	2.500		71	30-140			
Octacosane (C28)	2.5	0.2	mg/kg wet	2.500		100	40-140			
Octadecane (C18)	2.4	0.2	mg/kg wet	2.500		95	40-140			
Tetracosane (C24)	2.5	0.2	mg/kg wet	2.500		100	40-140			
Tetradecane (C14)	2.3	0.2	mg/kg wet	2.500		92	40-140			
Total Petroleum Hydrocarbons	32.8	37.5	mg/kg wet	35.00		94	40-140			
Triacotane (C30)	2.5	0.2	mg/kg wet	2.500		99	40-140			

*Surrogate: O-Terphenyl*

4.88 mg/kg wet 5.000 98 40-140

**LCS Dup**

Decane (C10)	2.2	0.2	mg/kg wet	2.500		87	40-140	1	25	
Docosane (C22)	2.6	0.2	mg/kg wet	2.500		103	40-140	3	25	
Dodecane (C12)	2.4	0.2	mg/kg wet	2.500		95	40-140	2	25	
Eicosane (C20)	2.5	0.2	mg/kg wet	2.500		102	40-140	3	25	
Hexacosane (C26)	2.6	0.2	mg/kg wet	2.500		103	40-140	3	25	
Hexadecane (C16)	2.5	0.2	mg/kg wet	2.500		99	40-140	3	25	
Nonadecane (C19)	2.8	0.2	mg/kg wet	2.500		113	40-140	3	25	
Nonane (C9)	1.7	0.2	mg/kg wet	2.500		69	30-140	2	25	
Octacosane (C28)	2.6	0.2	mg/kg wet	2.500		103	40-140	3	25	
Octadecane (C18)	2.4	0.2	mg/kg wet	2.500		98	40-140	3	25	
Tetracosane (C24)	2.6	0.2	mg/kg wet	2.500		103	40-140	3	25	
Tetradecane (C14)	2.4	0.2	mg/kg wet	2.500		94	40-140	2	25	
Total Petroleum Hydrocarbons	33.7	37.5	mg/kg wet	35.00		96	40-140	3	25	
Triacotane (C30)	2.6	0.2	mg/kg wet	2.500		103	40-140	3	25	

*Surrogate: O-Terphenyl*

4.92 mg/kg wet 5.000 98 40-140

**8270D Semi-Volatile Organic Compounds**

**Batch CL72208 - 3546**

**Blank**

1,1-Biphenyl	ND	0.333	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet							
1,2-Dichlorobenzene	ND	0.333	mg/kg wet							
1,3-Dichlorobenzene	ND	0.333	mg/kg wet							
1,4-Dichlorobenzene	ND	0.333	mg/kg wet							
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet							
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet							
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet							
2,4-Dichlorophenol	ND	0.333	mg/kg wet							
2,4-Dimethylphenol	ND	0.333	mg/kg wet							
2,4-Dinitrophenol	ND	1.67	mg/kg wet							
2,4-Dinitrotoluene	ND	0.333	mg/kg wet							



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**8270D Semi-Volatile Organic Compounds**

**Batch CL72208 - 3546**

2,6-Dinitrotoluene	ND	0.333	mg/kg wet							
2-Chloronaphthalene	ND	0.333	mg/kg wet							
2-Chlorophenol	ND	0.333	mg/kg wet							
2-Methylnaphthalene	ND	0.333	mg/kg wet							
2-Methylphenol	ND	0.333	mg/kg wet							
2-Nitroaniline	ND	0.333	mg/kg wet							
2-Nitrophenol	ND	0.333	mg/kg wet							
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet							
3+4-Methylphenol	ND	0.667	mg/kg wet							
3-Nitroaniline	ND	0.333	mg/kg wet							
4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet							
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet							
4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet							
4-Chloroaniline	ND	0.667	mg/kg wet							
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet							
4-Nitroaniline	ND	0.333	mg/kg wet							
4-Nitrophenol	ND	1.67	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Acetophenone	ND	0.667	mg/kg wet							
Aniline	ND	0.667	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Azobenzene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Benzoic Acid	ND	1.67	mg/kg wet							
Benzyl Alcohol	ND	0.333	mg/kg wet							
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet							
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet							
bis(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet							
bis(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet							
Butylbenzylphthalate	ND	0.333	mg/kg wet							
Carbazole	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Dibenzofuran	ND	0.333	mg/kg wet							
Diethylphthalate	ND	0.333	mg/kg wet							
Dimethylphthalate	ND	0.333	mg/kg wet							
Di-n-butylphthalate	ND	0.333	mg/kg wet							
Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							



CERTIFICATE OF ANALYSIS

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

**Batch CL72208 - 3546**

Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							
Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.60		mg/kg wet	3.333		78	30-130			
Surrogate: 2,4,6-Tribromophenol	3.07		mg/kg wet	5.000		61	30-130			
Surrogate: 2-Chlorophenol-d4	4.17		mg/kg wet	5.000		83	30-130			
Surrogate: 2-Fluorobiphenyl	2.79		mg/kg wet	3.333		84	30-130			
Surrogate: 2-Fluorophenol	4.18		mg/kg wet	5.000		84	30-130			
Surrogate: Nitrobenzene-d5	2.72		mg/kg wet	3.333		82	30-130			
Surrogate: Phenol-d6	4.29		mg/kg wet	5.000		86	30-130			
Surrogate: p-Terphenyl-d14	3.31		mg/kg wet	3.333		99	30-130			

**LCS**

1,1-Biphenyl	2.68	0.333	mg/kg wet	3.333		80	40-140			
1,2,4-Trichlorobenzene	2.62	0.333	mg/kg wet	3.333		79	40-140			
1,2-Dichlorobenzene	2.59	0.333	mg/kg wet	3.333		78	40-140			
1,3-Dichlorobenzene	2.57	0.333	mg/kg wet	3.333		77	40-140			
1,4-Dichlorobenzene	2.52	0.333	mg/kg wet	3.333		75	40-140			
2,3,4,6-Tetrachlorophenol	2.53	1.67	mg/kg wet	3.333		76	30-130			
2,4,5-Trichlorophenol	2.66	0.333	mg/kg wet	3.333		80	30-130			
2,4,6-Trichlorophenol	2.58	0.333	mg/kg wet	3.333		77	30-130			
2,4-Dichlorophenol	2.61	0.333	mg/kg wet	3.333		78	30-130			
2,4-Dimethylphenol	2.73	0.333	mg/kg wet	3.333		82	30-130			
2,4-Dinitrophenol	2.83	1.67	mg/kg wet	3.333		85	30-130			
2,4-Dinitrotoluene	2.72	0.333	mg/kg wet	3.333		82	40-140			
2,6-Dinitrotoluene	2.84	0.333	mg/kg wet	3.333		85	40-140			
2-Chloronaphthalene	2.42	0.333	mg/kg wet	3.333		73	40-140			
2-Chlorophenol	2.64	0.333	mg/kg wet	3.333		79	30-130			
2-Methylnaphthalene	2.64	0.333	mg/kg wet	3.333		79	40-140			
2-Methylphenol	2.25	0.333	mg/kg wet	3.333		68	30-130			
2-Nitroaniline	2.41	0.333	mg/kg wet	3.333		72	40-140			
2-Nitrophenol	2.44	0.333	mg/kg wet	3.333		73	30-130			
3,3'-Dichlorobenzidine	1.61	0.667	mg/kg wet	3.333		48	40-140			



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

**Batch CL72208 - 3546**

3+4-Methylphenol	6.60	0.667	mg/kg wet	6.667		99	30-130			
3-Nitroaniline	2.64	0.333	mg/kg wet	3.333		79	40-140			
4,6-Dinitro-2-Methylphenol	3.48	1.67	mg/kg wet	3.333		104	30-130			
4-Bromophenyl-phenylether	2.72	0.333	mg/kg wet	3.333		82	40-140			
4-Chloro-3-Methylphenol	2.78	0.333	mg/kg wet	3.333		84	30-130			
4-Chloroaniline	1.85	0.667	mg/kg wet	3.333		55	40-140			
4-Chloro-phenyl-phenyl ether	2.83	0.333	mg/kg wet	3.333		85	40-140			
4-Nitroaniline	2.62	0.333	mg/kg wet	3.333		79	40-140			
4-Nitrophenol	2.48	1.67	mg/kg wet	3.333		74	30-130			
Acenaphthene	2.54	0.333	mg/kg wet	3.333		76	40-140			
Acenaphthylene	2.66	0.333	mg/kg wet	3.333		80	40-140			
Acetophenone	2.78	0.667	mg/kg wet	3.333		83	40-140			
Aniline	1.44	0.667	mg/kg wet	3.333		43	40-140			
Anthracene	2.69	0.333	mg/kg wet	3.333		81	40-140			
Azobenzene	2.65	0.333	mg/kg wet	3.333		80	40-140			
Benzo(a)anthracene	2.60	0.333	mg/kg wet	3.333		78	40-140			
Benzo(a)pyrene	2.80	0.167	mg/kg wet	3.333		84	40-140			
Benzo(b)fluoranthene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Benzo(g,h,i)perylene	2.47	0.333	mg/kg wet	3.333		74	40-140			
Benzo(k)fluoranthene	2.86	0.333	mg/kg wet	3.333		86	40-140			
Benzoic Acid	3.02	1.67	mg/kg wet	3.333		91	40-140			
Benzyl Alcohol	1.92	0.333	mg/kg wet	3.333		58	40-140			
bis(2-Chloroethoxy)methane	2.58	0.333	mg/kg wet	3.333		78	40-140			
bis(2-Chloroethyl)ether	2.61	0.333	mg/kg wet	3.333		78	40-140			
bis(2-chloroisopropyl)Ether	2.48	0.333	mg/kg wet	3.333		74	40-140			
bis(2-Ethylhexyl)phthalate	3.04	0.333	mg/kg wet	3.333		91	40-140			
Butylbenzylphthalate	2.89	0.333	mg/kg wet	3.333		87	40-140			
Carbazole	2.74	0.333	mg/kg wet	3.333		82	40-140			
Chrysene	2.66	0.167	mg/kg wet	3.333		80	40-140			
Dibenzo(a,h)Anthracene	2.59	0.167	mg/kg wet	3.333		78	40-140			
Dibenzofuran	2.78	0.333	mg/kg wet	3.333		83	40-140			
Diethylphthalate	2.95	0.333	mg/kg wet	3.333		89	40-140			
Dimethylphthalate	2.80	0.333	mg/kg wet	3.333		84	40-140			
Di-n-butylphthalate	3.06	0.333	mg/kg wet	3.333		92	40-140			
Di-n-octylphthalate	3.01	0.333	mg/kg wet	3.333		90	40-140			
Fluoranthene	2.74	0.333	mg/kg wet	3.333		82	40-140			
Fluorene	2.97	0.333	mg/kg wet	3.333		89	40-140			
Hexachlorobenzene	2.71	0.167	mg/kg wet	3.333		81	40-140			
Hexachlorobutadiene	2.55	0.333	mg/kg wet	3.333		76	40-140			
Hexachlorocyclopentadiene	1.95	1.67	mg/kg wet	3.333		59	40-140			
Hexachloroethane	2.52	0.333	mg/kg wet	3.333		76	40-140			
Indeno(1,2,3-cd)Pyrene	2.59	0.333	mg/kg wet	3.333		78	40-140			
Isophorone	2.46	0.333	mg/kg wet	3.333		74	40-140			
Naphthalene	2.65	0.333	mg/kg wet	3.333		80	40-140			
Nitrobenzene	2.60	0.333	mg/kg wet	3.333		78	40-140			



CERTIFICATE OF ANALYSIS

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

**Batch CL72208 - 3546**

N-Nitrosodimethylamine	2.59	0.333	mg/kg wet	3.333		78	40-140			
N-Nitroso-Di-n-Propylamine	2.62	0.333	mg/kg wet	3.333		79	40-140			
N-nitrosodiphenylamine	2.79	0.333	mg/kg wet	3.333		84	40-140			
Pentachlorophenol	3.10	1.67	mg/kg wet	3.333		93	30-130			
Phenanthrene	2.65	0.333	mg/kg wet	3.333		79	40-140			
Phenol	2.70	0.333	mg/kg wet	3.333		81	30-130			
Pyrene	2.64	0.333	mg/kg wet	3.333		79	40-140			
Pyridine	2.15	1.67	mg/kg wet	3.333		64	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.75		mg/kg wet	3.333		82	30-130			
Surrogate: 2,4,6-Tribromophenol	4.55		mg/kg wet	5.000		91	30-130			
Surrogate: 2-Chlorophenol-d4	4.64		mg/kg wet	5.000		93	30-130			
Surrogate: 2-Fluorobiphenyl	3.03		mg/kg wet	3.333		91	30-130			
Surrogate: 2-Fluorophenol	4.57		mg/kg wet	5.000		91	30-130			
Surrogate: Nitrobenzene-d5	2.96		mg/kg wet	3.333		89	30-130			
Surrogate: Phenol-d6	4.66		mg/kg wet	5.000		93	30-130			
Surrogate: p-Terphenyl-d14	3.17		mg/kg wet	3.333		95	30-130			

**LCS Dup**

1,1-Biphenyl	2.69	0.333	mg/kg wet	3.333		81	40-140	0.4	30	
1,2,4-Trichlorobenzene	2.71	0.333	mg/kg wet	3.333		81	40-140	3	30	
1,2-Dichlorobenzene	2.52	0.333	mg/kg wet	3.333		76	40-140	3	30	
1,3-Dichlorobenzene	2.51	0.333	mg/kg wet	3.333		75	40-140	2	30	
1,4-Dichlorobenzene	2.48	0.333	mg/kg wet	3.333		74	40-140	1	30	
2,3,4,6-Tetrachlorophenol	2.58	1.67	mg/kg wet	3.333		77	30-130	2	30	
2,4,5-Trichlorophenol	2.74	0.333	mg/kg wet	3.333		82	30-130	3	30	
2,4,6-Trichlorophenol	2.66	0.333	mg/kg wet	3.333		80	30-130	3	30	
2,4-Dichlorophenol	2.72	0.333	mg/kg wet	3.333		82	30-130	4	30	
2,4-Dimethylphenol	2.82	0.333	mg/kg wet	3.333		85	30-130	3	30	
2,4-Dinitrophenol	2.89	1.67	mg/kg wet	3.333		87	30-130	2	30	
2,4-Dinitrotoluene	2.81	0.333	mg/kg wet	3.333		84	40-140	3	30	
2,6-Dinitrotoluene	2.92	0.333	mg/kg wet	3.333		88	40-140	3	30	
2-Chloronaphthalene	2.48	0.333	mg/kg wet	3.333		74	40-140	2	30	
2-Chlorophenol	2.59	0.333	mg/kg wet	3.333		78	30-130	2	30	
2-Methylnaphthalene	2.73	0.333	mg/kg wet	3.333		82	40-140	4	30	
2-Methylphenol	2.32	0.333	mg/kg wet	3.333		70	30-130	3	30	
2-Nitroaniline	2.49	0.333	mg/kg wet	3.333		75	40-140	3	30	
2-Nitrophenol	2.59	0.333	mg/kg wet	3.333		78	30-130	6	30	
3,3'-Dichlorobenzidine	1.83	0.667	mg/kg wet	3.333		55	40-140	13	30	
3+4-Methylphenol	6.67	0.667	mg/kg wet	6.667		100	30-130	1	30	
3-Nitroaniline	2.81	0.333	mg/kg wet	3.333		84	40-140	6	30	
4,6-Dinitro-2-Methylphenol	3.57	1.67	mg/kg wet	3.333		107	30-130	3	30	
4-Bromophenyl-phenylether	2.82	0.333	mg/kg wet	3.333		85	40-140	4	30	
4-Chloro-3-Methylphenol	2.89	0.333	mg/kg wet	3.333		87	30-130	4	30	
4-Chloroaniline	2.08	0.667	mg/kg wet	3.333		63	40-140	12	30	
4-Chloro-phenyl-phenyl ether	2.88	0.333	mg/kg wet	3.333		86	40-140	2	30	
4-Nitroaniline	2.75	0.333	mg/kg wet	3.333		82	40-140	5	30	





*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

**Batch CL72208 - 3546**

4-Nitrophenol	2.54	1.67	mg/kg wet	3.333		76	30-130	3	30	
Acenaphthene	2.34	0.333	mg/kg wet	3.333		70	40-140	8	30	
Acenaphthylene	2.74	0.333	mg/kg wet	3.333		82	40-140	3	30	
Acetophenone	2.74	0.667	mg/kg wet	3.333		82	40-140	1	30	
Aniline	1.67	0.667	mg/kg wet	3.333		50	40-140	15	30	
Anthracene	2.82	0.333	mg/kg wet	3.333		85	40-140	5	30	
Azobenzene	2.74	0.333	mg/kg wet	3.333		82	40-140	3	30	
Benzo(a)anthracene	2.59	0.333	mg/kg wet	3.333		78	40-140	0.6	30	
Benzo(a)pyrene	2.85	0.167	mg/kg wet	3.333		85	40-140	2	30	
Benzo(b)fluoranthene	2.79	0.333	mg/kg wet	3.333		84	40-140	2	30	
Benzo(g,h,i)perylene	2.46	0.333	mg/kg wet	3.333		74	40-140	0.6	30	
Benzo(k)fluoranthene	2.91	0.333	mg/kg wet	3.333		87	40-140	2	30	
Benzoic Acid	3.11	1.67	mg/kg wet	3.333		93	40-140	3	30	
Benzyl Alcohol	2.16	0.333	mg/kg wet	3.333		65	40-140	12	30	
bis(2-Chloroethoxy)methane	2.70	0.333	mg/kg wet	3.333		81	40-140	4	30	
bis(2-Chloroethyl)ether	2.54	0.333	mg/kg wet	3.333		76	40-140	3	30	
bis(2-chloroisopropyl)Ether	2.42	0.333	mg/kg wet	3.333		73	40-140	2	30	
bis(2-Ethylhexyl)phthalate	3.02	0.333	mg/kg wet	3.333		91	40-140	0.6	30	
Butylbenzylphthalate	2.89	0.333	mg/kg wet	3.333		87	40-140	0.09	30	
Carbazole	2.92	0.333	mg/kg wet	3.333		88	40-140	6	30	
Chrysene	2.64	0.167	mg/kg wet	3.333		79	40-140	0.9	30	
Dibenzo(a,h)Anthracene	2.61	0.167	mg/kg wet	3.333		78	40-140	0.7	30	
Dibenzofuran	2.83	0.333	mg/kg wet	3.333		85	40-140	2	30	
Diethylphthalate	3.02	0.333	mg/kg wet	3.333		91	40-140	2	30	
Dimethylphthalate	2.88	0.333	mg/kg wet	3.333		86	40-140	3	30	
Di-n-butylphthalate	3.16	0.333	mg/kg wet	3.333		95	40-140	3	30	
Di-n-octylphthalate	3.09	0.333	mg/kg wet	3.333		93	40-140	3	30	
Fluoranthene	2.90	0.333	mg/kg wet	3.333		87	40-140	6	30	
Fluorene	2.82	0.333	mg/kg wet	3.333		85	40-140	5	30	
Hexachlorobenzene	2.78	0.167	mg/kg wet	3.333		83	40-140	3	30	
Hexachlorobutadiene	2.64	0.333	mg/kg wet	3.333		79	40-140	3	30	
Hexachlorocyclopentadiene	2.01	1.67	mg/kg wet	3.333		60	40-140	3	30	
Hexachloroethane	2.45	0.333	mg/kg wet	3.333		73	40-140	3	30	
Indeno(1,2,3-cd)Pyrene	2.62	0.333	mg/kg wet	3.333		79	40-140	1	30	
Isophorone	2.55	0.333	mg/kg wet	3.333		76	40-140	4	30	
Naphthalene	2.72	0.333	mg/kg wet	3.333		82	40-140	3	30	
Nitrobenzene	2.68	0.333	mg/kg wet	3.333		80	40-140	3	30	
N-Nitrosodimethylamine	2.41	0.333	mg/kg wet	3.333		72	40-140	7	30	
N-Nitroso-Di-n-Propylamine	2.61	0.333	mg/kg wet	3.333		78	40-140	0.4	30	
N-nitrosodiphenylamine	2.87	0.333	mg/kg wet	3.333		86	40-140	3	30	
Pentachlorophenol	3.37	1.67	mg/kg wet	3.333		101	30-130	8	30	
Phenanthrene	2.76	0.333	mg/kg wet	3.333		83	40-140	4	30	
Phenol	2.68	0.333	mg/kg wet	3.333		80	30-130	0.9	30	
Pyrene	2.66	0.333	mg/kg wet	3.333		80	40-140	0.6	30	
Pyridine	2.11	1.67	mg/kg wet	3.333		63	40-140	2	30	



CERTIFICATE OF ANALYSIS

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

**Batch CL72208 - 3546**

Surrogate: 1,2-Dichlorobenzene-d4	2.44		mg/kg wet	3.333		73	30-130			
Surrogate: 2,4,6-Tribromophenol	4.17		mg/kg wet	5.000		83	30-130			
Surrogate: 2-Chlorophenol-d4	4.04		mg/kg wet	5.000		81	30-130			
Surrogate: 2-Fluorobiphenyl	2.72		mg/kg wet	3.333		82	30-130			
Surrogate: 2-Fluorophenol	4.03		mg/kg wet	5.000		81	30-130			
Surrogate: Nitrobenzene-d5	2.72		mg/kg wet	3.333		82	30-130			
Surrogate: Phenol-d6	4.16		mg/kg wet	5.000		83	30-130			
Surrogate: p-Terphenyl-d14	2.78		mg/kg wet	3.333		84	30-130			

Classical Chemistry

**Batch CL72241 - General Preparation**

**Blank**

Reactive Cyanide	ND	2.0	mg/kg							
Reactive Sulfide	ND	2.0	mg/kg							

**LCS**

Reactive Cyanide	3.9	2.0	mg/kg	100.3		4	0.68-5.41			
Reactive Sulfide	ND	2.0	mg/kg	10.00		0	0-44			

**Batch CL72636 - General Preparation**

**Blank**

Conductivity	ND	5	umhos/cm							
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**LCS**

Conductivity	1320		umhos/cm	1411		94	90-110			
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**Batch CL72727 - General Preparation**

**Reference**

Flashpoint	82		°F	81.00		101	97.9-102.1			
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*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**Notes and Definitions**

- Z-10 Soil pH measured in water at 19.8 °C.
- WL Results obtained from a deionized water leach of the sample.
- U Analyte included in the analysis, but not detected
- Q Calibration required quadratic regression (Q).
- O Test performed from a previously opened container
- J Reported between MDL and MRL
- ICV+ Initial Calibration Verification recovery is above upper control limit (ICV+).
- D Diluted.
- CD- Continuing Calibration %Diff/Drift is below control limit (CD-).
- B+ Blank Spike recovery is above upper control limit (B+).
- > Greater than.
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte
- SUB Subcontracted analysis; see attached report
- RL Reporting Limit
- EDL Estimated Detection Limit



*CERTIFICATE OF ANALYSIS*

Client Name: Common Sense Environmental  
Client Project ID: Newport Navy Base

ESS Laboratory Work Order: 1712539

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/OutOfStateCommercialLaboratories.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf)

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/meecd/environmental-health/dwp/partners/labCert.shtml>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

[http://datamine2.state.nj.us/DEP\\_OPRA/OpraMain/pi\\_main?mode=pi\\_by\\_site&sort\\_order=PI\\_NAMEA&Select+a+Site:=58715](http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715)

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

## ESS Laboratory Sample and Cooler Receipt Checklist

Client: Common Sense Environmental - KP/B/TB/HDM

ESS Project ID: 1712539

Shipped/Delivered Via: ESS Courier

Date Received: 12/22/2017

Project Due Date: 1/2/2018

Days for Project: 5 Day

- 1. Air bill manifest present?  No  
Air No.: NA
- 2. Were custody seals present?  No
- 3. Is radiation count <100 CPM?  Yes
- 4. Is a Cooler Present?  Yes  
Temp: 5.8 Iced with: Ice
- 5. Was COC signed and dated by client?  Yes

- 6. Does COC match bottles?  Yes
- 7. Is COC complete and correct?  Yes
- 8. Were samples received intact?  Yes
- 9. Were labs informed about short holds & rushes?  Yes / No / NA
- 10. Were any analyses received outside of hold time?  Yes / No

- 11. Any Subcontracting needed? Yes  No  
ESS Sample IDs: \_\_\_\_\_  
Analysis: \_\_\_\_\_  
TAT: \_\_\_\_\_

- 12. Were VOAs received?  Yes / No
- a. Air bubbles in aqueous VOAs?  Yes / No
- b. Does methanol cover soil completely?  Yes / No / NA

- 13. Are the samples properly preserved?  Yes / No
- a. If metals preserved upon receipt: Date: \_\_\_\_\_ Time: \_\_\_\_\_ By: \_\_\_\_\_
- b. Low Level VOA vials frozen: Date: \_\_\_\_\_ Time: \_\_\_\_\_ By: \_\_\_\_\_

Sample Receiving Notes:

\_\_\_\_\_

\_\_\_\_\_

- 14. Was there a need to contact Project Manager? Yes  No
- a. Was there a need to contact the client? Yes / No
- Who was contacted? \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ By: \_\_\_\_\_

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	193009	Yes	NA	Yes	VOA Vial - Methanol	NaOH	
02	193010	Yes	NA	Yes	8 oz. Jar - Unpres	NP	

**2nd Review**

Are barcode labels on correct containers?  Yes / No

Completed By: [Signature] Date & Time: 12/22/17 1200

Reviewed By: [Signature] Date & Time: 12/22/17 1305

Delivered By: [Signature] Date & Time: 12/22/17 1305

# ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211

Tel. (401) 461-7181 Fax (401) 461-4486

www.esslaboratory.com

# CHAIN OF CUSTODY

Page 1 of 1

Turn Time <input checked="" type="checkbox"/> Standard Other _____ If faster than 5 days, prior approval by laboratory is required # _____	Reporting Limits <b>GB-L</b>	ESS LAB PROJECT ID <b>172539</b>
State where samples were collected from: MA <input type="checkbox"/> RI <input checked="" type="checkbox"/> CT NH NJ NY ME Other _____	Electronic Deliverable <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Is this project for any of the following: MA-MCP Navy USACE Other _____	Format: Excel <input checked="" type="checkbox"/> Access <input type="checkbox"/> PDF <input checked="" type="checkbox"/> Other _____	

Co. Name <b>Common Sense Environmental</b>		Project #	Project Name (20 Char. or less) <b>Newport Navy Base - PIPE WORK</b>		Number of Containers	Type of Containers	Circle and/or Write Required Analysis																		
Contact Person <b>Kevin Beaulieu</b>		Address <b>38 Elm Street</b>					Pres Code	8260 8260 8015 MIB/ATEX GRO	624	524.2	8015 VPH w/Targets	8100 TPH DRO	EPH w/PAHs 4 Diesel	608 PCB Pesticides	625 PAH 8270	RCRA5 RCRA8 PPI3 TAL23	TCLP-RCRA NBC7	MCP-METALS (13) w/Hg	Corrosivity	Flammability	Reactivity	Conductivity			
City <b>New Bedford</b>		State <b>MA</b>	Zip <b>02740</b>	PO#																					
Telephone # <b>(508) 863-3102 (c)</b>		Fax #		Email Address <b>kevin@commonsenseenv.com</b>																					
ESS LAB Sample#	Date	Collection Time	COMP	CRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 8260	624	524.2	8015 VPH w/Targets	8100 TPH DRO	EPH w/PAHs 4 Diesel	608 PCB Pesticides	625 PAH 8270	RCRA5 RCRA8 PPI3 TAL23	TCLP-RCRA NBC7	MCP-METALS (13) w/Hg	Corrosivity	Flammability	Reactivity	Conductivity	
1	12-22-17	09:00		X	S	STKPL BIDG A9 (A)	6	1	V																
2	12-22-17	09:00	X		S	STKPL BLDG A9	1	1	G				X		X	X	X	X			X	X	X	X	

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Internal Use Only <input type="checkbox"/>	Preservation Code: 1- NP, 2- HCl, 3- H <sub>2</sub> SO <sub>4</sub> , 4- HNO <sub>3</sub> , 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____
Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No NA: _____ [ ] Pickup	Sampled by: <b>Kevin Beaulieu</b>	Comments: <b>Please use composite sample for % moisture</b>
Cooler Temp: <b>5.5 Ice</b> [ ] Technicians _____		

Relinquished by: (Signature) <i>Kevin Beaulieu</i>	Date/Time <b>12/22/17 10:00</b>	Received by: (Signature) <i>[Signature]</i>	Date/Time <b>12/22/17 10:07</b>	Relinquished by: (Signature) <i>[Signature]</i>	Date/Time <b>12/22/17 11:24</b>	Received by: (Signature) <i>[Signature]</i>	Date/Time <b>12/20/17 11:51</b>
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

\*By circling MA-MCP, client acknowledges samples were collected in accordance with MA DEP CAM 10.00A

Please fax all changes to Chain of Custody in writing.

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State where samples were collected from: MA <input type="checkbox"/> RI <input checked="" type="checkbox"/> CT NH NJ NY ME Other _____	Electronic Deliverable <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Is this project for any of the following: MA-MCP <input type="checkbox"/> Navy <input type="checkbox"/> USACE Other _____	Format: Excel <input checked="" type="checkbox"/> Access <input type="checkbox"/> PDF <input checked="" type="checkbox"/> Other _____	

Co. Name <b>Common Sense Environmental</b>		Project #		Project Name (20 Char. or less) <u>Newport Navy Base - PIPE work</u>	
Contact Person <b>Kevin Beaulieu</b>		Address <b>38 Elm Street</b>			
City <b>New Bedford</b>		State <b>MA</b>		Zip <b>02740</b>	
Telephone # <b>(508) 863-3102 (c)</b>		Fax #		PO#	
ESS LAB Sample#		Date		Collection Time	
COMP		CRAB		MATRIX	
Sample Identification (20 Char. or less)		Pres Code		Number of Containers	
				Type of Containers	
				Circle and/or Write Required Analysis	
				624 524.2	
				8015 VPH w/targets	
				8015 GRO	
				8100 TPH DRO	
				EPH w/PAHs 4 Diesel	
				608 PCB	
				608 PCB Pesticides	
				625 PAH 8270	
				8270 SVOA	
				RCRA5 PPI3 TAL23	
				TCLP-RCRA5 NBC7	
				MCP-METALS (13) w/Hg	
				Corrosivity	
				Flammability	
				Reactivity	
				Conductivity	

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Internal Use Only	Preservation Code: 1- NP, 2- HCl, 3- H <sub>2</sub> SO <sub>4</sub> , 4- HNO <sub>3</sub> , 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____
Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No NA: _____ [ ] Pickup		Sampled by: <b>Kevin Beaulieu</b>
Cooler Temp: <u>5.5 Ice</u> [ ] Technicians _____		Comments: <u>Please use composite sample for % moisture</u>

Relinquished by: (Signature) <i>Kevin Beaulieu</i>	Date/Time <u>12/22/17 10:07</u>	Received by: (Signature) <i>[Signature]</i>	Date/Time <u>12/22/17 10:07</u>	Relinquished by: (Signature) <i>[Signature]</i>	Date/Time <u>12/22/17 11:24</u>	Received by: (Signature) <i>[Signature]</i>	Date/Time <u>12/20/17 11:51</u>
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

\*By circling MA-MCP, client acknowledges samples were collected in accordance with MA DEP CAM 10.00A

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