ALLENDER BUTZKE ENGINEERS INC.
GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION Q. C.

April 19, 2013 **PN 133123**

PHASE II ENVIRONMENTAL SITE ASSESSMENT

PROPOSED INTERMODAL FACILITY AND PARKING RAMP
9TH STREET AND ELM STREET
DUBUQUE, IOWA

PERFORMED FOR

NEUMANN MONSON ARCHITECTS
221 EAST COLLEGE STREET, SUITE 303
IOWA CITY, IOWA 52240

3660 109TH STREET • URBANDALE, IOWA 50322 • PHONE 515-252-1885 • FAX 515-252-1888

ALLENDER BUTZKE ENGINEERS INC.
3660 109TH STREET • URBANDALE, IOWA 50322 • PHONE 515-252-1885 • FAX 515-252-1888

Neumann Monson Architects
221 East College Street, Suite 303
Iowa City, Iowa 52240

April 19, 2013

Attn: Khalid Khan

RE: Phase II Environmental Site Assessment
Proposed Intermodal Facility and Parking Ramp
9th Street and Elm Street
Dubuque, Iowa
PN 133123

Dear Mr. Khan:

The following Phase II Environmental Site Assessment report presents the results of seven test borings and laboratory chemical analysis of soil and groundwater samples. The objective of the Phase II ESA was to investigate soil and groundwater quality on the subject property in response to environmental concerns associated with past uses of the property and surrounding area.

We appreciate the opportunity to provide our environmental services for this project. If you have any questions concerning this Phase II ESA or require further assistance, please contact our office at your convenience.

Respectfully,
ALLENDER BUTZKE ENGINEERS INC.

Donald D. Edds
Environmental Geologist

1 PC and Email Above
1 PC and Email to City of Dubuque, Attn: Tim Horsfield

TABLE OF CONTENTS

Page No.

1.0 INTRODUCTION 1

2.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS 1

3.0 BOREHOLE DRILLING, SOIL PROFILE AND SOIL SAMPLING 1
- 3.1 Borehole Drilling 1
- 3.2 Soil Profile 2
- 3.3 Soil Sampling 2

4.0 TEST WELL INSTALLATION AND GROUNDWATER SAMPLING 2
- 4.1 Test Well Installation 2
- 4.2 Groundwater Sampling 3

5.0 LABORATORY CHEMICAL ANALYSIS 3

6.0 RESULTS 3

7.0 CONCLUSIONS 4

8.0 GENERAL 5

Table Nos. 1 and 2 6

APPENDIX - Site Map, Boring Logs and Laboratory Analytical Reports

1.0 INTRODUCTION

The following report presents the results of a Phase II Environmental Site Assessment performed at the request of the Neumann Monson Architects on March 18, 2013. The Phase II ESA consisted of seven test borings and laboratory chemical analysis of soil and groundwater samples. The objective of this Phase II ESA was to investigate soil and groundwater quality on the subject property in response to environmental concerns associated with past uses of the property and surrounding area.

It was proposed that the property be investigated with seven test borings. The following report includes information on borehole drilling, soil profile, soil sampling, test well installation, groundwater sampling and laboratory chemical analysis. A Site Map showing the test boring locations (E1 to E7) is enclosed in the Appendix. Environmental test borings performed by IIW Engineers and geotechnical test borings performed by Allender Butzke Engineers are also shown.

2.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

A Phase II ESA report was prepared for the project site by IIW Engineers on April 20, 2011. Seven test borings were drilled on the east side of Elm Street for this investigation and monitoring wells were installed. The IIW Engineers test borings that were located south of E. 11th Street are shown on the enclosed Site Map. All chemical concentrations in the soil samples were found to be less than statewide standards. The Lead (Pb) concentrations in groundwater from two of the test borings (I2 and I7) and the Pentachlorophenol concentration in groundwater from one test boring (I3) were found to exceed the Iowa Land Recycling Program (ILRP) statewide standards.

A follow-up Phase II ESA report was prepared by IIW Engineers on November 30, 2011. Four additional test borings were drilled by IIW Engineers for the follow-up assessment. These test borings were located on the west side of Elm Street and are shown as I1 to I4 on the enclosed map. All chemical concentrations in the soil samples were found to be less than statewide standards. The Arsenic concentration in groundwater from one test boring (I2) and the Lead concentrations in groundwater from two test borings (I3 and I4) were found to exceed the statewide standards. The Chloroform concentrations in two of the test borings (I3 and I4) were reported to have exceeded the statewide standard by IIW Engineers. However, the analytical reports that were included with the report revealed that the Chloroform concentrations were less than the statewide standard.

3.0 BOREHOLE DRILLING, SOIL PROFILE AND SOIL SAMPLING

3.1 Borehole Drilling

Seven test borings were drilled to 25 feet at the project site on March 20 and 21, 2013. The test borings were drilled with 4-inch diameter continuous flight augers and split spoon sampler. All drilling and sampling equipment was cleaned with a pressure washer prior to entering the site to prevent off-site contamination. Separate clean augers were used for each test boring to prevent cross-contamination. Soils were examined in the field for the presence of discoloration or unusual odors. Bag samples were collected at five-foot intervals for PID screening and soil classification.

3.2 Soil Profile

Fill soils were encountered in the upper five to ten feet of the test borings. The fill sediments ranged from lean clay to sand and gravelly sand. Brick rubble, wood and cinders were found within the fill in one or more of the test borings. The fill soils were underlain by lean clay sediments (Cohesive Alluvium) in test borings E-1, E-2 and E-3 and by sand and gravelly sand sediments locally containing interbedded silt seams (Granular Alluvium) in E-4, E-5, E-6 and E-7. All test borings terminated at 25 feet in granular alluvium.

Saturated soil conditions were noted in the test borings at depths ranging from 15 to 16 feet. The borings yielded groundwater when test wells were installed in them. Detailed descriptions of the soils encountered during this Phase II ESA are provided on the enclosed Boring Logs.

3.3 Soil Sampling

Gray soil discoloration, petroleum odors and elevated PID readings were indicated in test boring E-2. Soil discoloration and odors were evident as shallow as 3.5 feet beneath the surface in E-2. The highest PID reading was recorded at a depth of 10 feet. Petroleum odors and elevated PID readings extended to a depth of 15 feet in E-2. No soil discoloration, unusual odors or elevated PID readings were indicated in the other test borings.

Representative soil samples for laboratory chemical analysis were collected from all test borings. The soil samples for RCRA metals analysis were collected from the fill soils at depths ranging from 5 to 10 feet beneath the surface. Metals tend to accumulate in fill soils near the surface. The soil sample for VOC, petroleum hydrocarbon and semi-volatile analysis was collected from a depth of 10 feet, where the highest PID reading was recorded in E-2.

In the absence of detectable PID readings in the other test borings, soil samples for VOC, petroleum and semi-volatile analysis were collected from the alluvial sediments at depths ranging from 15 to 16 feet. These depths were approximately equivalent to the water table as observed during drilling. Many of the VOCs and other chemicals tend to concentrate in soils located near the top of the saturated zone. The soil samples were placed in laboratory-provided glass containers, packed in a cooler and shipped to the laboratory for chemical analysis.

4.0 TEST WELL INSTALLATION AND GROUNDWATER SAMPLING

4.1 Test Well Installation

Temporary test wells that consisted of an end well point, a lower 10 feet of factory-slotted, two-inch diameter PVC screen and an upper 15 feet of two-inch diameter PVC solid casing were installed in the test borings for groundwater sampling purposes. Water levels were measured in the test wells shortly after well installation. The measured water levels ranged from 15 to 16.5 feet.

4.2 Groundwater Sampling

Groundwater samples for laboratory chemical analysis were collected from the test wells on March 20 and 21, 2013. Groundwater samples were collected with separate disposable plastic bailers to prevent cross-contamination. The samples were placed in laboratory-provided glass containers, packed in a cooler with artificial refrigeration and shipped to the laboratory for chemical analysis. A portion of each groundwater sample was filtered using disposable 0.45-micron filters as required for dissolved metals analysis. Upon completion of groundwater sampling, the PVC pipe and screen were removed from the ground and the boreholes were backfilled with granular bentonite.

5.0 LABORATORY CHEMICAL ANALYSIS

Chemical analysis of the soil and groundwater samples was performed by Keystone Laboratories, Inc. All soil samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B, semi-volatile organic compounds by EPA Method 8270C, total extractable hydrocarbons (TEH) by Iowa Method OA-2, and RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) by EPA Methods 6010B and 7471B.

All groundwater samples were analyzed for VOCs by EPA Method 8260B, semi-volatiles by EPA Method 8270C, TEH by Iowa Method OA-2 and dissolved RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) by EPA Methods 6020A and 7470A. In addition, three of the groundwater samples were analyzed for Dioxins and Furans by EPA Method 8290. The test results are shown on the Analytical Reports enclosed in the Appendix. Analytes with detectable concentrations in soil or groundwater are shown in Table Nos. 1 and 2.

6.0 RESULTS

The Analytical Reports for soil indicate that TEH as waste oil was detected at a concentration of 25 ppm in test boring TB-2. However, there are no known Iowa or federal action levels for TEH as waste oil in soil. No other petroleum hydrocarbons, VOCs or semi-volatile organic compounds were detected in the soil samples.

The RCRA metals arsenic, barium, chromium and lead were detected in soil samples collected from all seven test borings. In addition, mercury was detected in soil from test boring E-2 and cadmium was detected in soil from E-4 and E-5. Arsenic concentrations ranged from 1.7 ppm to 6.4 ppm, barium concentrations ranged from 20.3 ppm to 160 ppm, cadmium concentrations ranged from 0.4 ppm to 1.9 ppm, chromium concentrations ranged from 6.7 ppm to 22.5 ppm, lead concentrations ranged from 2.1 ppm to 42.9 ppm and the only detectable mercury concentration was 1.1 ppm. These concentrations are less than the ILRP statewide standards of 17 ppm for arsenic, 15000 ppm for barium, 70 ppm for cadmium, 210 ppm for chromium, 400 ppm for lead and 23 ppm for mercury.

The Analytical Reports for groundwater indicate TEH as diesel fuel was detected at a concentration of 400 ppb and Bis(2-Ethylhexyl) Phthalate was detected at a concentration of 32 ppb in E-2. In addition, Pentachlorophenol was detected at a concentration of 78 ppb in E-3 and Chloroform was detected at concentrations of 3.9 ppb in E-5, 3.6 ppb in E-6 and 2.3 ppb in E-7. Also, the dissolved RCRA metals barium, cadmium and selenium were detected in one more of the groundwater samples. Barium concentrations ranged from 73.6 ppb to 612 ppb, cadmium concentrations ranged from 0.8 ppb to 3.3 ppb, and selenium concentrations ranged from 4.1 ppb to 4.3 ppb. No Dioxins or Furans were detected in the groundwater samples from test borings E-2, E-4 or E-7.

The IDNR corrective action level for TEH as diesel fuel in groundwater is 1200 ppb. The ILRP statewide standards for groundwater are 2000 ppb for Barium, 6 ppb for Bis(2-Ethyhexyl) Phthalate, 5 ppb for Cadmium, 80 ppb for Chloroform, 1 ppb for Pentachlorophenol and 50 ppb for Selenium. Therefore, the 32 ppb Bis(2-Ethylhexyl) Phthalate concentration in E-2 and the 78 ppb Pentachlorophenol concentration in E-3 exceed the statewide standards for groundwater.

7.0 CONCLUSIONS

The only obvious contamination discovered during this assessment was observed in E-2, a test boring drilled on the east side of Elm Street between E. 9th Street and E. 10th Street. Low levels of TEH as waste oil were detected in soil and low levels of TEH as diesel fuel and elevated levels of Bis(2-Ethylhexyl) Phthalate were detected in groundwater from this test boring. Soil discoloration was noted at 3.5 feet in E-2, so a surface or near surface source for the petroleum contamination is probable. Bis(2-Ethylhexyl) Phthalate is commonly used as a plasticizing agent for PVC, but it has other uses. This chemical has also been reported as a possible laboratory contaminant. The source of the soil and groundwater contaminants in E-2 could not be determined during this assessment.

Pentachlorophenol was detected at a concentration of 78 ppb in E-3, a test boring drilled on the east side of Elm Street, north of E-2. This chemical was also detected at a concentration of 147 ppb in groundwater from I-3, a test boring drilled by IIW Engineers in 2011. Test boring I-3 was located in proximity to the northwest of E-3. It is our understanding that a plume of Pentachlorophenol in groundwater had been identified in this area several years ago by another environmental consulting firm. It is likely that the Pentachlorophenol found in E-3 during this Phase II ESA is part of the same contaminant plume. However, the source of the contamination is not known.

It is important to recognize that the method reporting limits for Pentachlorophenol in the groundwater samples ranged from 20 ppb to 30 ppb. These method reporting limits are greater than the statewide standard of 1 ppb for Pentachlorophenol. Therefore, this chemical could be present above the statewide standard in groundwater at other test boring locations. Likewise, other semi-volatile organic compounds had method reporting limits that were greater than their statewide standards. Chloroform was detected at low levels in groundwater from three test borings. Chloroform is a widely used VOC. However, it is also a common laboratory contaminant.

Regulations concerning contamination in soil and groundwater are contained in the Iowa Code and are administered by the Iowa Department of Natural Resources. We recommend that the client consult with representatives of the Contaminated Sites Section of the IDNR with regard to the results of this Phase II Environmental Site Assessment and any additional action that may be required.

8.0 GENERAL

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental assessment practices. Reliance by any other party is prohibited without the written authorization of the client or Allender Butzke Engineers Inc. This investigation is based upon the best information available to us at this time, including visual/olfactory observations, portable vapor detection equipment, and limited laboratory chemical analysis which are assumed to be representative of this site. Evaluation of analytical test results is based on current Iowa Department of Natural Resources (IDNR) and Iowa Land Recycling Program (ILRP) guidelines regarding acceptable concentrations and methods.

Failure to discover hazardous substances or conditions at the time of this report, within the scope of this investigation, does not guarantee unacceptable levels of hazardous materials might not exist at the site. We make no warranty, expressed or implied, for this property nor make certification of the suitability of the future use of the property based on the results of this assessment, except that our services were performed with the level of care and skill ordinarily practiced by members of the profession in this area at this time under similar budget and time restraints.

Table No. 1
Analytes Detected in Soil

Sample No.	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	TEH as Waste Oil
DBQ-1	5.4	116	<0.7	21.1	15.3	<0.11	<5
DBQ-2	2.6	53.0	<0.3	11.3	42.9	1.1	25
DBQ-3	6.4	160	<0.7	22.5	19.2	<0.11	<5
DBQ-4	4.5	67.7	1.9	17.5	28.4	<0.14	<5
DBQ-5	2.0	20.3	0.4	7.9	3.3	<0.12	<5
DBQ-6	2.0	24.8	<0.3	6.7	2.1	<0.14	<5
DBQ-7	1.7	22.6	<0.2	7.5	2.1	<0.09	<5
Statewide Standard	**17**	**15000**	**70**	**210**	**400**	**23**	NAL

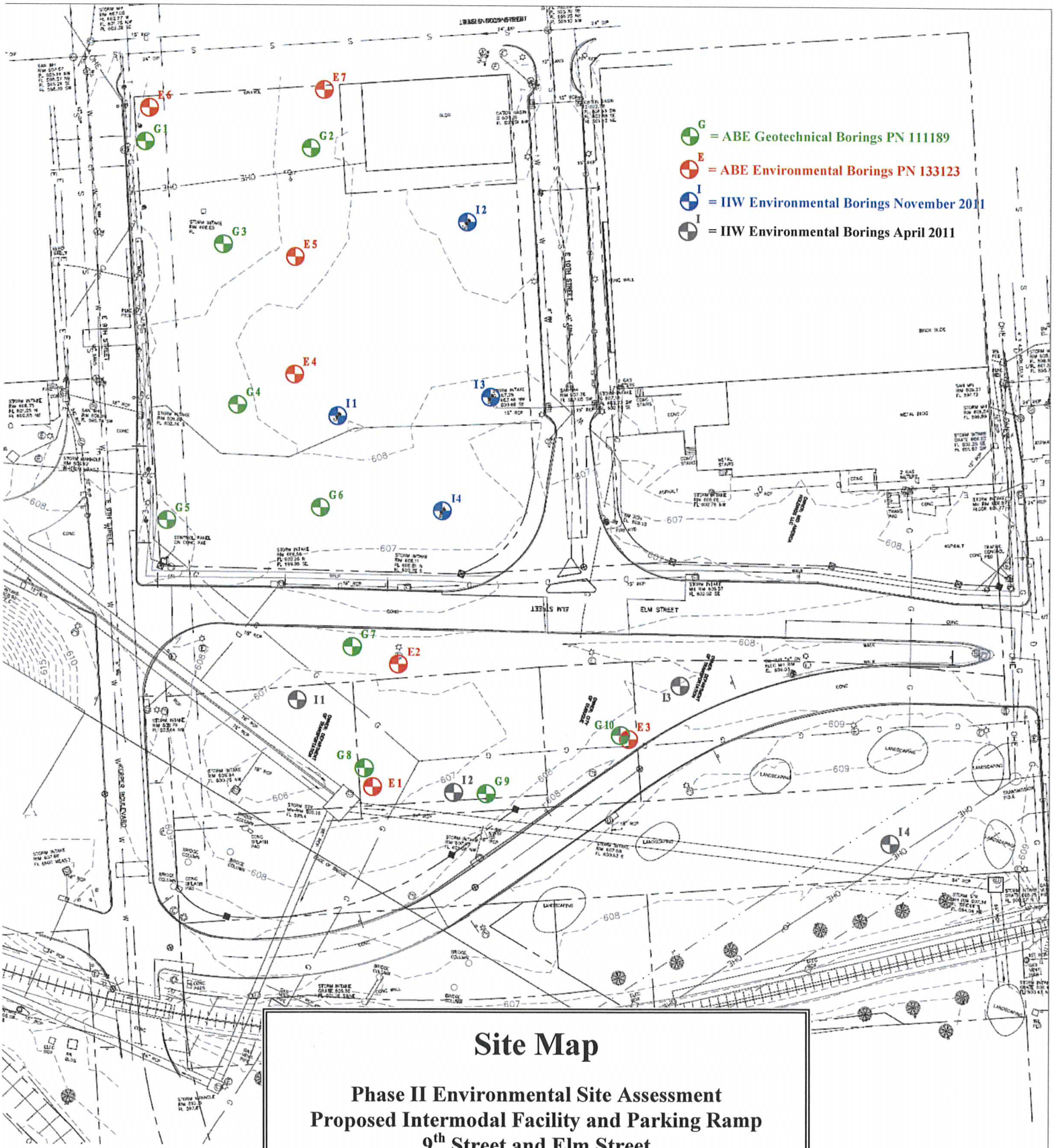
Soil concentrations are listed in mg/kg or parts per million (ppm)
NAL – No Action Level

Table No. 2
Analytes Detected in Groundwater

Sample No.	Barium	Cadmium	Selenium	Chloroform	Pentachlorophenol	Bis(2-Ethylhexl) Phthalate	TEH as Diesel Fuel
DBQ-1W	97.5	1.7	4.3	<1.0	<30	<15	<500
DBQ-2W	612	<0.8	<4.0	<1.0	<28	**32**	400
DBQ-3W	279	0.8	<4.0	<1.0	**78**	<15	<100
DBQ-4W	73.6	1.2	<4.0	<1.0	<20	<10	<100
DBQ-5W	168	3.3	<4.0	3.9	<20	<10	<200
DBQ-6W	91.8	<0.8	4.1	3.6	<20	<10	<100
DBQ-7W	109	<0.8	<4.0	2.3	<20	<10	<100
Statewide Standard	**2000**	**5**	**50**	**80**	**1**	**6**	**1200**

Groundwater concentrations are listed in ug/L or parts per billion (ppb)

APPENDIX



Site Map

Phase II Environmental Site Assessment
Proposed Intermodal Facility and Parking Ramp
9th Street and Elm Street
Dubuque, Iowa

(ABE environmental test boring locations are shown in red)

BORING LOG NO. E-1

Project No.: 133123

Project: Dubuque Intermodal/Parking Ramp
9th Street and Elm Street
Dubuque, Iowa

Client: Neumann Monson Architects
221 East College Street, Suite 303
Iowa City, Iowa 52240

Surface Elevation: N/A
Datum: N/A

Date Drilled: March 20, 2013
Drilling Depth: 25

Drilling Method 4-inch CFA w/ split spoon
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		Brown to dark brown lean clay, trace sand, moist		CL		
		DBQ-1	SS	0						
				0		Brown medium to coarse sand, trace gravel, moist after 4 feet FILL		SP		
				0						
	10			0		Dark gray lean clay, very moist		CL		
				0		Light gray after 12 feet				
		DBQ-1	SS	0		COHESIVE ALLUVIUM			▽	
				0						
	20			0		Reddish-brown lean clay after 21 feet				
				0		Brown medium to coarse sand, trace gravel, wet GRANULAR ALLUVIUM		SP		
				0		End of Boring				
	30									

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation

Time: at completion _____ hrs. _____ days

Depth to water: 16 ft. ▽ _____ ft. ▽ _____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.

Geotechnical - Environmental - Construction Q.C.

BORING LOG NO. E-2

Project No.: 133123

Project: Dubuque Intermodal/Parking Ramp
9th Street and Elm Street
Dubuque, Iowa

Client: Neumann Monson Architects
221 East College Street, Suite 303
Iowa City, Iowa 52240

Surface Elevation: N/A
Datum: N/A

Date Drilled: March 20, 2013
Drilling Depth: 25

Drilling Method 4-inch CFA w/ split spoon
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		Very dark brown sandy lean clay, trace gravel, cinders and brick, moist		CL		
		DBQ-2	SS	0		Dark gray lean clay with slight petroleum odor, moist				
				25	Slight	FILL Brown fine to coarse sand, trace gravel, damp		SP		
				20						
	10	DBQ-2	SS	65	Slight	Dark gray lean clay with slight petroleum odor, very moist		CL		
				10						
				20		No petroleum odor after 15 feet COHESIVE ALLUVIUM Brown-gray after 16 feet			▽	
				0						
	20			0						
				0		Brown fine to coarse sand, trace gravel, wet GRANULAR ALLUVIUM		SP		
				0		End of Boring				
	30									

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation

Time: at completion ____ hrs. ____ days

Depth to water: 15 ft. ▽ ____ ft. ▽ ____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.

Geotechnical - Environmental - Construction Q.C.

BORING LOG NO. E-3

Project No.: 133123

Project: Dubuque Intermodal/Parking Ramp
9th Street and Elm Street
Dubuque, Iowa

Client: Neumann Monson Architects
221 East College Street, Suite 303
Iowa City, Iowa 52240

Surface Elevation: N/A
Datum: N/A

Date Drilled: March 20, 2013
Drilling Depth: 25

Drilling Method 4-inch CFA w/ split spoon
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		Mixed crushed rock and sand, damp		GM		
				0		Very dark gray sandy lean clay, trace gravel and cinders, moist, after 3 feet		CL		
		DBQ-3	SS			Gray silty clay from 5 to 7 feet				
				0		FILL				
				0		Very dark gray lean clay, trace gravel and cinders, after 7 feet				
	10			0		Brick and wood fragments from 9 to 10 feet				
				0		Dark gray lean clay, very moist		CL		
				0						
		DBQ-3	SS	0		COHESIVE ALLUVIUM Brown after 17 feet			▽	
	20			0		Reddish-brown after 20.5 feet				
				0						
				0		Brown medium to coarse sand, trace gravel, wet GRANULAR ALLUVIUM		SP		
				0		End of Boring				
	30									

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation

Time:	at completion	____ hrs.	____ days
Depth to water:	16.5 ft. ▽	____ ft. ▽	____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.

Geotechnical - Environmental - Construction Q.C.

BORING LOG NO. E-4

Project No.: 133123

Project: Dubuque Intermodal/Parking Ramp
9th Street and Elm Street
Dubuque, Iowa

Client: Neumann Monson Architects
221 East College Street, Suite 303
Iowa City, Iowa 52240

Surface Elevation: N/A
Datum: N/A

Date Drilled: March 20, 2013
Drilling Depth: 25

Drilling Method 4-inch CFA w/ split spoon
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		6 inches mixed crushed rock and sand, damp		GM		
						Very dark gray silty sand, trace gravel and wood, damp to moist		SM		
		DBQ-4	SS	0		FILL				
				0						
				0		Cinders and brick from 6.5 to 7.5 feet				
				0		Dark brown clayey sand, very moist		SC		
	10			0						
				0		Brown fine to medium sand, trace gravel, after 11 feet		SP		
				0						
		DBQ-4	SS	0		Coarse sand, wet, after 16 feet			▽	
				0		GRANULAR ALLUVIUM				
	20			0						
				0						
				0		End of Boring				
	30									

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation
Time: at completion _____ hrs. _____ days
Depth to water: 16 ft. ▽ _____ ft. ▽ _____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.
Geotechnical - Environmental - Construction Q.C.

BORING LOG NO. E-5

Project No.: 133123

Project: Dubuque Intermodal/Parking Ramp
9th Street and Elm Street
Dubuque, Iowa

Client: Neumann Monson Architects
221 East College Street, Suite 303
Iowa City, Iowa 52240

Surface Elevation: N/A
Datum: N/A

Date Drilled: March 20, 2013
Drilling Depth: 25

Drilling Method 4-inch CFA w/ split spoon
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		6 inches mixed crushed rock and sand, damp		GM		
						Very dark gray silty sand, trace gravel cinders and brick, damp		SM		
		DBQ-5	SS	0		FILL				
				0						
						Dark brown clayey fine to medium sand, moist		SC		
				0						
	10			0		Brown medium to coarse sand after 9.5 feet		SW		
				0						
		DBQ-5	SS	0		Moisture seepage at 15 feet			▽	
						GRANULAR ALLUVIUM				
				0						
						Trace gravel from 19 to 20 feet				
	20			0						
				0						
				0		End of Boring				
	30									

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation

Time: at completion _____ hrs. _____ days

Depth to water: 15 ft. ▽ _____ ft. ▽ _____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.

Geotechnical - Environmental - Construction Q.C.

BORING LOG NO. E-6

Project No.: 133123

Project: Dubuque Intermodal/Parking Ramp
9th Street and Elm Street
Dubuque, Iowa

Client: Neumann Monson Architects
221 East College Street, Suite 303
Iowa City, Iowa 52240

Surface Elevation: N/A
Datum: N/A

Date Drilled: March 20, 2013
Drilling Depth: 25

Drilling Method 4-inch CFA w/ split spoon
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0						
						18 inches mixed crushed rock and sand, damp		GM		
				0		Brown silty fine sand, moist		SM		
		DBQ-6	SS			FILL Heavy brick debris from 3.5 to 4 feet				
				0		Very dark gray sandy lean clay with gravel brick and cinders from 4.5 to 5 feet		CL		
				0		Brown fine to coarse sand, trace gravel, moist		SW		
	10			0						
				0						
		DBQ-6	SS	0		Moisture seepage at 15 feet GRANULAR ALLUVIUM			▽	
				0		Silt seam from 17 to 17.5 feet				
	20			0						
				0		Gravelly sand from 21.5 to 23 feet				
				0		End of Boring				
	30									

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation

Time: at completion _____ hrs. _____ days

Depth to water: 15 ft. ▽ _____ ft. ▽ _____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.

Geotechnical - Environmental - Construction Q.C.

BORING LOG NO. E-7

Project No.: 133123

Project: Dubuque Intermodal/Parking Ramp
9th Street and Elm Street
Dubuque, Iowa

Client: Neumann Monson Architects
221 East College Street, Suite 303
Iowa City, Iowa 52240

Surface Elevation: N/A
Datum: N/A

Date Drilled: March 20, 2013
Drilling Depth: 25

Drilling Method 4-inch CFA w/ split spoon
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		18 inches mixed crushed rock and sand, damp		GM		
						Dary gray sandy lean clay, trace gravel, moist		CL		
		DBQ-7	SS	0		Dark brown silty fine sand with cinders, moist FILL		SM		
				0						
				0		Brown medium to coarse sand, trace gravel, moist		SW		
	10			0						
				0						
		DBQ-7	SS	0		Coarse sand with moisture seepage at 14.5 feet GRANULAR ALLUVIUM			▽	
				0		Interbedded silt seams near 17.5 feet				
	20			0						
				0		Gravelly sand after 23 feet				
				0		End of Boring				
	30									

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation

Time: at completion _____ hrs. _____ days

Depth to water: 15 ft. ▽ _____ ft. ▽ _____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.

Geotechnical - Environmental - Construction Q.C.

ANALYTICAL REPORT

April 08, 2013

Work Order: 1C31317

Report To	Work Order Information
Don Edds	Date Received: 03/22/2013 11:25AM
Allender Butzke Engineers, Inc.	Collector: Hoden, Jake
3660 109th Street	Phone: (515) 252-1885
Urbandale, IA 50322	PO Number: Dubuque Project

Project : Site Assessment

Project Number: Dubuque Project

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-01 DBQ-1				Matrix:Soil		Collected: 03/20/13 15:40	
Chloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Vinyl Chloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Bromomethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Chloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,1-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Acetone	<0.100 mg/kg dry	0.100	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Carbon Disulfide	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Methylene Chloride	<0.100 mg/kg dry	0.100	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
trans-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Methyl-t-butyl Ether (MTBE)	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,1-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
cis-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
2-Butanone (MEK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Chloroform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,1,1-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Carbon Tetrachloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Benzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,2-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Trichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,2-Dichloropropane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Bromodichloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
cis-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
4-Methyl-2-pentanone (MIBK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Toluene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
trans-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,1,2-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-01 DBQ-1				Matrix:Soil		Collected: 03/20/13 15:40	
Tetrachloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
2-Hexanone (MBK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Dibromochloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Chlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Ethylbenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Xylenes, total	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Bromoform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,1,2,2-Tetrachloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,3-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,4-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
1,2-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 17:23	
Surrogate: Dibromofluoromethane	*112 %*			*88-125*	TVK	03/26/13 17:23	
Surrogate: 1,2-Dichloroethane-d4	*112 %*			*70-125*	TVK	03/26/13 17:23	
Surrogate: Toluene-d8	*100 %*			*88-115*	TVK	03/26/13 17:23	
Surrogate: 4-Bromofluorobenzene	*105 %*			*81-121*	TVK	03/26/13 17:23	
TEH, as gasoline	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 2:01	
TEH, as #2 diesel fuel	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 2:01	
TEH, as waste oil	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 2:01	
Total Extractable Hydrocarbons	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 2:01	
Surrogate: Pentacosane	*106 %*			*42-129*	EPP	03/28/13 2:01	
N-Nitrosodimethylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Phenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Aniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Bis(2-Chloroethyl) Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2-Chlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
1,3-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
1,4-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Benzyl Alcohol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
1,2-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2-Methylphenol (o-Cresol)	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Bis[2-Chloroisopropyl]ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
n-Nitroso-di-n-propylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
(3 & 4)-Methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Hexachloroethane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Nitrobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Isophorone	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2-Nitrophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2,4-Dimethylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	

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Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-01 DBQ-1				Matrix:Soil		Collected: 03/20/13 15:40	
Bis (2-Chloroethoxy) Methane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2,4-Dichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
1,2,4-Trichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Naphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
4-Chloroaniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Hexachlorobutadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
4-Chloro-3-methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2-Methylnaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Hexachlorocyclopentadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2,4,6-Trichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2,4,5-Trichlorophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2-Chloronaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Dimethylphthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Acenaphthylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2,6-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
3-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Acenaphthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2,4-Dinitrophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Dibenzofuran	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
2,4-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
4-Nitrophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Diethyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Fluorene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
4-Chlorophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
4-Nitroaniline	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
4,6-Dinitro-2-methylphenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
N-Nitrosodiphenylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Azobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
4-Bromophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Hexachlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Pentachlorophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Phenanthrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Di-n-butyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Benzidine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	

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Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-01 DBQ-1				Matrix:Soil		Collected: 03/20/13 15:40	
Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Butyl Benzyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Benzo(a)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Chrysene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Bis(2-Ethylhexyl) Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Di-n-octyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Indeno(1,2,3-cd)Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
3,3´-Dichlorobenzidine	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Benzo(b)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Benzo(k)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Benzo(a)Pyrene	<0.31 mg/kg dry	0.31	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Dibenzo(a,h)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Benzo(g,h,i)perylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/04/13 23:58	
Surrogate: 2-Fluorophenol	*71.7 %*			*15-127*	EPP	04/04/13 23:58	
Surrogate: Phenol-d6	*77.6 %*			*16-132*	EPP	04/04/13 23:58	
Surrogate: Nitrobenzene-d5	*75.4 %*			*15-147*	EPP	04/04/13 23:58	
Surrogate: 2-Fluorobiphenyl	*72.3 %*			*33-133*	EPP	04/04/13 23:58	
Surrogate: 2,4,6-Tribromophenol	*72.5 %*			*24-163*	EPP	04/04/13 23:58	
Surrogate: Terphenyl-dl4	*96.4 %*			*16-151*	EPP	04/04/13 23:58	
% Solids	**78.5 %**	**0.1**	1WC0753	SM 2540 G	MID	03/25/13 9:19	
Silver, total	<0.7 mg/kg dry	0.7	1WC0855	EPA 6010B	DRB	03/29/13 23:09	
Arsenic, total	**5.4 mg/kg dry**	**3.3**	1WC0855	EPA 6010B	DRB	03/29/13 23:09	
Barium, total	**116 mg/kg dry**	**0.66**	1WC0855	EPA 6010B	DRB	03/29/13 23:09	
Cadmium, total	<0.7 mg/kg dry	0.7	1WC0855	EPA 6010B	DRB	03/29/13 23:09	
Chromium, total	**21.1 mg/kg dry**	**2.0**	1WC0855	EPA 6010B	DRB	03/29/13 23:09	
Mercury, total	<0.11 mg/kg dry	0.11	1WD0105	EPA 7471A	RVV	04/03/13 14:23	
Lead, total	**15.3 mg/kg dry**	**3.3**	1WC0855	EPA 6010B	DRB	03/29/13 23:09	
Selenium, total	<2.0 mg/kg dry	2.0	1WC0855	EPA 6010B	DRB	03/29/13 23:09	
1C31317-02 DBQ-2				Matrix:Soil		Collected: 03/20/13 15:00	
Chloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Vinyl Chloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Bromomethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Chloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,1-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Acetone	<0.093 mg/kg dry	0.093	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Carbon Disulfide	<0.009 mg/kg dry	0.009	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Methylene Chloride	<0.093 mg/kg dry	0.093	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
trans-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	

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Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-02 DBQ-2				Matrix:Soil		Collected: 03/20/13 15:00	
Methyl-t-butyl Ether (MTBE)	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,1-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
cis-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
2-Butanone (MEK)	<0.009 mg/kg dry	0.009	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Chloroform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,1,1-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Carbon Tetrachloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Benzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,2-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Trichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,2-Dichloropropane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Bromodichloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
cis-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
4-Methyl-2-pentanone (MIBK)	<0.009 mg/kg dry	0.009	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Toluene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
trans-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,1,2-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Tetrachloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
2-Hexanone (MBK)	<0.009 mg/kg dry	0.009	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Dibromochloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Chlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Ethylbenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Xylenes, total	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Bromoform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,1,2,2-Tetrachloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,3-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,4-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
1,2-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 8:17	
Surrogate: Dibromofluoromethane	*124 %*			*88-125*	TVK	03/27/13 8:17	
Surrogate: 1,2-Dichloroethane-d4	*132 %*			*70-125*	TVK	03/27/13 8:17	S-GC
Surrogate: Toluene-d8	*93.2 %*			*88-115*	TVK	03/27/13 8:17	
Surrogate: 4-Bromofluorobenzene	*97.4 %*			*81-121*	TVK	03/27/13 8:17	
TEH, as gasoline	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 2:51	
TEH, as #2 diesel fuel	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 2:51	
TEH, as waste oil	**25 mg/kg**	**5**	1WC0770	Iowa OA-2	EPP	03/28/13 2:51	
Total Extractable Hydrocarbons	**25 mg/kg**	**5**	1WC0770	Iowa OA-2	EPP	03/28/13 2:51	
Surrogate: Pentacosane	*114 %*			*42-129*	EPP	03/28/13 2:51	
N-Nitrosodimethylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-02 DBQ-2				Matrix:Soil		Collected: 03/20/13 15:00	
Phenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Aniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Bis(2-Chloroethyl) Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2-Chlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
1,3-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
1,4-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Benzyl Alcohol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
1,2-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2-Methylphenol (o-Cresol)	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Bis[2-Chloroisopropyl]ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
n-Nitroso-di-n-propylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
(3 & 4)-Methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Hexachloroethane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Nitrobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Isophorone	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2-Nitrophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2,4-Dimethylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Bis (2-Chloroethoxy) Methane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2,4-Dichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
1,2,4-Trichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Naphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
4-Chloroaniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Hexachlorobutadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
4-Chloro-3-methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2-Methylnaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Hexachlorocyclopentadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2,4,6-Trichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2,4,5-Trichlorophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2-Chloronaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Dimethylphthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Acenaphthylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2,6-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
3-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Acenaphthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
2,4-Dinitrophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Dibenzofuran	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-02 DBQ-2				Matrix:Soil		Collected: 03/20/13 15:00	
2,4-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
4-Nitrophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Diethyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Fluorene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
4-Chlorophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
4-Nitroaniline	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
4,6-Dinitro-2-methylphenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
N-Nitrosodiphenylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Azobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
4-Bromophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Hexachlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Pentachlorophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Phenanthrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Di-n-butyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Benzidine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Butyl Benzyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Benzo(a)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Chrysene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Bis(2-Ethylhexyl) Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Di-n-octyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Indeno(1,2,3-cd)Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
3,3´-Dichlorobenzidine	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Benzo(b)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Benzo(k)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Benzo(a)Pyrene	<0.31 mg/kg dry	0.31	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Dibenzo(a,h)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Benzo(g,h,i)perylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 16:36	
Surrogate: 2-Fluorophenol	*39.6 %*			*15-127*	EPP	04/05/13 16:36	
Surrogate: Phenol-d6	*39.9 %*			*16-132*	EPP	04/05/13 16:36	
Surrogate: Nitrobenzene-d5	*47.4 %*			*15-147*	EPP	04/05/13 16:36	
Surrogate: 2-Fluorobiphenyl	*49.4 %*			*33-133*	EPP	04/05/13 16:36	
Surrogate: 2,4,6-Tribromophenol	*82.5 %*			*24-163*	EPP	04/05/13 16:36	
Surrogate: Terphenyl-dl4	*100 %*			*16-151*	EPP	04/05/13 16:36	
% Solids	**85.5 %**	**0.1**	1WC0753	SM 2540 G	MID	03/25/13 9:19	
Silver, total	<0.3 mg/kg dry	0.3	1WC0855	EPA 6010B	DRB	03/29/13 23:15	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-02 DBQ-2				Matrix:Soil		Collected: 03/20/13 15:00	
Arsenic, total	**2.6 mg/kg dry**	**1.5**	1WC0855	EPA 6010B	DRB	03/29/13 23:15	
Barium, total	**53.0 mg/kg dry**	**0.31**	1WC0855	EPA 6010B	DRB	03/29/13 23:15	
Cadmium, total	<0.3 mg/kg dry	0.3	1WC0855	EPA 6010B	DRB	03/29/13 23:15	
Chromium, total	**11.3 mg/kg dry**	**0.9**	1WC0855	EPA 6010B	DRB	03/29/13 23:15	
Mercury, total	**1.1 mg/kg dry**	**0.09**	1WD0105	EPA 7471A	RVV	04/03/13 14:25	
Lead, total	**42.9 mg/kg dry**	**1.5**	1WC0855	EPA 6010B	DRB	03/29/13 23:15	
Selenium, total	<0.9 mg/kg dry	0.9	1WC0855	EPA 6010B	DRB	03/29/13 23:15	
1C31317-03 DBQ-3				Matrix:Soil		Collected: 03/20/13 16:30	
Chloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Vinyl Chloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Bromomethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Chloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,1-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Acetone	<0.124 mg/kg dry	0.124	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Carbon Disulfide	<0.012 mg/kg dry	0.012	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Methylene Chloride	<0.124 mg/kg dry	0.124	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
trans-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Methyl-t-butyl Ether (MTBE)	<0.005 mg/kg dry	0.005	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,1-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
cis-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
2-Butanone (MEK)	<0.012 mg/kg dry	0.012	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Chloroform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,1,1-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Carbon Tetrachloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Benzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,2-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Trichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,2-Dichloropropane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Bromodichloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
cis-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
4-Methyl-2-pentanone (MIBK)	<0.012 mg/kg dry	0.012	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Toluene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
trans-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,1,2-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Tetrachloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
2-Hexanone (MBK)	<0.012 mg/kg dry	0.012	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Dibromochloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-03 DBQ-3				Matrix:Soil		Collected: 03/20/13 16:30	
Chlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Ethylbenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Xylenes, total	<0.005 mg/kg dry	0.005	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Bromoform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,1,2,2-Tetrachloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,3-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,4-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
1,2-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/27/13 0:12	
Surrogate: Dibromofluoromethane	*121 %*			*88-125*	TVK	03/27/13 0:12	
Surrogate: 1,2-Dichloroethane-d4	*121 %*			*70-125*	TVK	03/27/13 0:12	
Surrogate: Toluene-d8	*92.6 %*			*88-115*	TVK	03/27/13 0:12	
Surrogate: 4-Bromofluorobenzene	*97.1 %*			*81-121*	TVK	03/27/13 0:12	
TEH, as gasoline	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 3:40	
TEH, as #2 diesel fuel	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 3:40	
TEH, as waste oil	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 3:40	
Total Extractable Hydrocarbons	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 3:40	
Surrogate: Pentacosane	*111 %*			*42-129*	EPP	03/28/13 3:40	
N-Nitrosodimethylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Phenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Aniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Bis(2-Chloroethyl) Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2-Chlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
1,3-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
1,4-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Benzyl Alcohol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
1,2-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2-Methylphenol (o-Cresol)	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Bis[2-Chloroisopropyl]ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
n-Nitroso-di-n-propylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
(3 & 4)-Methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Hexachloroethane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Nitrobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Isophorone	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2-Nitrophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2,4-Dimethylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Bis (2-Chloroethoxy) Methane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2,4-Dichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
1,2,4-Trichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	

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3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-03 DBQ-3				Matrix:Soil		Collected: 03/20/13 16:30	
Naphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
4-Chloroaniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Hexachlorobutadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
4-Chloro-3-methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2-Methylnaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Hexachlorocyclopentadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2,4,6-Trichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2,4,5-Trichlorophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2-Chloronaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Dimethylphthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Acenaphthylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2,6-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
3-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Acenaphthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2,4-Dinitrophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Dibenzofuran	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
2,4-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
4-Nitrophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Diethyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Fluorene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
4-Chlorophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
4-Nitroaniline	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
4,6-Dinitro-2-methylphenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
N-Nitrosodiphenylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Azobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
4-Bromophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Hexachlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Pentachlorophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Phenanthrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Di-n-butyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Benzidine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Butyl Benzyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Benzo(a)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-03 DBQ-3				Matrix:Soil		Collected: 03/20/13 16:30	
Chrysene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Bis(2-Ethylhexyl) Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Di-n-octyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Indeno(1,2,3-cd)Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
3,3′-Dichlorobenzidine	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Benzo(b)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Benzo(k)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Benzo(a)Pyrene	<0.31 mg/kg dry	0.31	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Dibenzo(a,h)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Benzo(g,h,i)perylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:09	
Surrogate: 2-Fluorophenol	*39.2 %*			*15-127*	EPP	04/05/13 17:09	
Surrogate: Phenol-d6	*45.2 %*			*16-132*	EPP	04/05/13 17:09	
Surrogate: Nitrobenzene-d5	*56.1 %*			*15-147*	EPP	04/05/13 17:09	
Surrogate: 2-Fluorobiphenyl	*52.8 %*			*33-133*	EPP	04/05/13 17:09	
Surrogate: 2,4,6-Tribromophenol	*75.1 %*			*24-163*	EPP	04/05/13 17:09	
Surrogate: Terphenyl-dl4	*101 %*			*16-151*	EPP	04/05/13 17:09	
% Solids	**79.4 %**	**0.1**	1WC0753	SM 2540 G	MID	03/25/13 9:19	
Silver, total	<0.7 mg/kg dry	0.7	1WC0855	EPA 6010B	DRB	03/29/13 23:20	
Arsenic, total	**6.4 mg/kg dry**	**3.6**	1WC0855	EPA 6010B	DRB	03/29/13 23:20	
Barium, total	**160 mg/kg dry**	**0.72**	1WC0855	EPA 6010B	DRB	03/29/13 23:20	
Cadmium, total	<0.7 mg/kg dry	0.7	1WC0855	EPA 6010B	DRB	03/29/13 23:20	
Chromium, total	**22.5 mg/kg dry**	**2.2**	1WC0855	EPA 6010B	DRB	03/29/13 23:20	
Mercury, total	<0.11 mg/kg dry	0.11	1WD0105	EPA 7471A	RVV	04/03/13 14:27	
Lead, total	**19.2 mg/kg dry**	**3.6**	1WC0855	EPA 6010B	DRB	03/29/13 23:20	
Selenium, total	<2.2 mg/kg dry	2.2	1WC0855	EPA 6010B	DRB	03/29/13 23:20	
1C31317-04 DBQ-4				Matrix:Soil		Collected: 03/20/13 13:47	
Chloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Vinyl Chloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Bromomethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Chloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,1-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Acetone	<0.100 mg/kg dry	0.100	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Carbon Disulfide	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Methylene Chloride	<0.100 mg/kg dry	0.100	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
trans-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Methyl-t-butyl Ether (MTBE)	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,1-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
cis-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-04 DBQ-4				Matrix:Soil		Collected: 03/20/13 13:47	
2-Butanone (MEK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Chloroform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,1,1-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Carbon Tetrachloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Benzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,2-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Trichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,2-Dichloropropane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Bromodichloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
cis-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
4-Methyl-2-pentanone (MIBK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Toluene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
trans-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,1,2-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Tetrachloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
2-Hexanone (MBK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Dibromochloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Chlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Ethylbenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Xylenes, total	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Bromoform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,1,2,2-Tetrachloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,3-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,4-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
1,2-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 16:46	
Surrogate: Dibromofluoromethane	*115 %*			*88-125*	TVK	03/26/13 16:46	
Surrogate: 1,2-Dichloroethane-d4	*113 %*			*70-125*	TVK	03/26/13 16:46	
Surrogate: Toluene-d8	*102 %*			*88-115*	TVK	03/26/13 16:46	
Surrogate: 4-Bromofluorobenzene	*85.6 %*			*81-121*	TVK	03/26/13 16:46	
TEH, as gasoline	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 4:30	
TEH, as #2 diesel fuel	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 4:30	
TEH, as waste oil	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 4:30	
Total Extractable Hydrocarbons	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 4:30	
Surrogate: Pentacosane	*112 %*			*42-129*	EPP	03/28/13 4:30	
N-Nitrosodimethylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Phenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Aniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Bis(2-Chloroethyl) Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	

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3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-04 DBQ-4				Matrix:Soil		Collected: 03/20/13 13:47	
2-Chlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
1,3-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
1,4-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Benzyl Alcohol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
1,2-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2-Methylphenol (o-Cresol)	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Bis[2-Chloroisopropyl]ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
n-Nitroso-di-n-propylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
(3 & 4)-Methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Hexachloroethane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Nitrobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Isophorone	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2-Nitrophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2,4-Dimethylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Bis (2-Chloroethoxy) Methane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2,4-Dichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
1,2,4-Trichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Naphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
4-Chloroaniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Hexachlorobutadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
4-Chloro-3-methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2-Methylnaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Hexachlorocyclopentadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2,4,6-Trichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2,4,5-Trichlorophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2-Chloronaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Dimethylphthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Acenaphthylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2,6-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
3-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Acenaphthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2,4-Dinitrophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Dibenzofuran	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
2,4-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
4-Nitrophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Diethyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-04 DBQ-4				Matrix:Soil		Collected: 03/20/13 13:47	
Fluorene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
4-Chlorophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
4-Nitroaniline	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
4,6-Dinitro-2-methylphenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
N-Nitrosodiphenylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Azobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
4-Bromophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Hexachlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Pentachlorophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Phenanthrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Di-n-butyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Benzidine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Butyl Benzyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Benzo(a)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Chrysene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Bis(2-Ethylhexyl) Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Di-n-octyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Indeno(1,2,3-cd)Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
3,3´-Dichlorobenzidine	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Benzo(b)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Benzo(k)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Benzo(a)Pyrene	<0.31 mg/kg dry	0.31	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Dibenzo(a,h)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Benzo(g,h,i)perylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 17:42	
Surrogate: 2-Fluorophenol	*45.6 %*			*15-127*	EPP	04/05/13 17:42	
Surrogate: Phenol-d6	*53.7 %*			*16-132*	EPP	04/05/13 17:42	
Surrogate: Nitrobenzene-d5	*71.6 %*			*15-147*	EPP	04/05/13 17:42	
Surrogate: 2-Fluorobiphenyl	*58.5 %*			*33-133*	EPP	04/05/13 17:42	
Surrogate: 2,4,6-Tribromophenol	*64.4 %*			*24-163*	EPP	04/05/13 17:42	
Surrogate: Terphenyl-dl4	*96.6 %*			*16-151*	EPP	04/05/13 17:42	
% Solids	**86.4 %**	**0.1**	1WC0878	SM 2540 G	MID	03/28/13 8:24	
Silver, total	<0.8 mg/kg dry	0.8	1WC0855	EPA 6010B	DRB	03/29/13 23:44	
Arsenic, total	**4.5 mg/kg dry**	**4.0**	1WC0855	EPA 6010B	DRB	03/29/13 23:44	
Barium, total	**67.7 mg/kg dry**	**0.81**	1WC0855	EPA 6010B	DRB	03/29/13 23:44	
Cadmium, total	**1.9 mg/kg dry**	**0.8**	1WC0855	EPA 6010B	DRB	03/29/13 23:44	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-04 DBQ-4				Matrix:Soil		Collected: 03/20/13 13:47	
Chromium, total	**17.5 mg/kg dry**	**2.4**	1WC0855	EPA 6010B	DRB	03/29/13 23:44	
Mercury, total	<0.14 mg/kg dry	0.14	1WD0105	EPA 7471A	RVV	04/03/13 14:29	
Lead, total	**28.4 mg/kg dry**	**4.0**	1WC0855	EPA 6010B	DRB	03/29/13 23:44	
Selenium, total	<2.4 mg/kg dry	2.4	1WC0855	EPA 6010B	DRB	03/29/13 23:44	
1C31317-05 DBQ-5				Matrix:Soil		Collected: 03/20/13 14:15	
Chloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Vinyl Chloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Bromomethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Chloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,1-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Acetone	<0.110 mg/kg dry	0.110	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Carbon Disulfide	<0.011 mg/kg dry	0.011	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Methylene Chloride	<0.110 mg/kg dry	0.110	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
trans-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Methyl-t-butyl Ether (MTBE)	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,1-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
cis-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
2-Butanone (MEK)	<0.011 mg/kg dry	0.011	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Chloroform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,1,1-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Carbon Tetrachloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Benzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,2-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Trichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,2-Dichloropropane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Bromodichloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
cis-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
4-Methyl-2-pentanone (MIBK)	<0.011 mg/kg dry	0.011	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Toluene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
trans-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,1,2-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Tetrachloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
2-Hexanone (MBK)	<0.011 mg/kg dry	0.011	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Dibromochloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Chlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Ethylbenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Xylenes, total	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/26/13 14:18	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-05 DBQ-5				Matrix:Soil		Collected: 03/20/13 14:15	
Bromoform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,1,2,2-Tetrachloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,3-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,4-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
1,2-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:18	
Surrogate: Dibromofluoromethane	*114 %*			*88-125*	TVK	03/26/13 14:18	
Surrogate: 1,2-Dichloroethane-d4	*113 %*			*70-125*	TVK	03/26/13 14:18	
Surrogate: Toluene-d8	*95.6 %*			*88-115*	TVK	03/26/13 14:18	
Surrogate: 4-Bromofluorobenzene	*102 %*			*81-121*	TVK	03/26/13 14:18	
TEH, as gasoline	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 5:19	
TEH, as #2 diesel fuel	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 5:19	
TEH, as waste oil	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 5:19	
Total Extractable Hydrocarbons	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 5:19	
Surrogate: Pentacosane	*114 %*			*42-129*	EPP	03/28/13 5:19	
N-Nitrosodimethylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Phenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Aniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Bis(2-Chloroethyl) Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2-Chlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
1,3-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
1,4-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Benzyl Alcohol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
1,2-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2-Methylphenol (o-Cresol)	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Bis[2-Chloroisopropyl]ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
n-Nitroso-di-n-propylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
(3 & 4)-Methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Hexachloroethane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Nitrobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Isophorone	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2-Nitrophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2,4-Dimethylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Bis (2-Chloroethoxy) Methane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2,4-Dichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
1,2,4-Trichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Naphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
4-Chloroaniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Hexachlorobutadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-05 DBQ-5				Matrix:Soil		Collected: 03/20/13 14:15	
4-Chloro-3-methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2-Methylnaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Hexachlorocyclopentadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2,4,6-Trichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2,4,5-Trichlorophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2-Chloronaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Dimethylphthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Acenaphthylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2,6-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
3-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Acenaphthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2,4-Dinitrophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Dibenzofuran	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
2,4-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
4-Nitrophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Diethyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Fluorene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
4-Chlorophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
4-Nitroaniline	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
4,6-Dinitro-2-methylphenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
N-Nitrosodiphenylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Azobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
4-Bromophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Hexachlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Pentachlorophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Phenanthrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Di-n-butyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Benzidine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Butyl Benzyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Benzo(a)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Chrysene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Bis(2-Ethylhexyl) Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Di-n-octyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-05 DBQ-5				Matrix:Soil		Collected: 03/20/13 14:15	
Indeno(1,2,3-cd)Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
3,3´-Dichlorobenzidine	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Benzo(b)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Benzo(k)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Benzo(a)Pyrene	<0.31 mg/kg dry	0.31	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Dibenzo(a,h)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Benzo(g,h,i)perylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 0:30	
Surrogate: 2-Fluorophenol	*43.4 %*			*15-127*	EPP	04/05/13 0:30	
Surrogate: Phenol-d6	*55.2 %*			*16-132*	EPP	04/05/13 0:30	
Surrogate: Nitrobenzene-d5	*69.9 %*			*15-147*	EPP	04/05/13 0:30	
Surrogate: 2-Fluorobiphenyl	*73.9 %*			*33-133*	EPP	04/05/13 0:30	
Surrogate: 2,4,6-Tribromophenol	*62.6 %*			*24-163*	EPP	04/05/13 0:30	
Surrogate: Terphenyl-dl4	*96.6 %*			*16-151*	EPP	04/05/13 0:30	
% Solids	**91.6 %**	**0.1**	1WC0878	SM 2540 G	MID	03/28/13 8:24	
Silver, total	<0.3 mg/kg dry	0.3	1WC0855	EPA 6010B	DRB	03/29/13 23:49	
Arsenic, total	**2.0 mg/kg dry**	**1.7**	1WC0855	EPA 6010B	DRB	03/29/13 23:49	
Barium, total	**20.3 mg/kg dry**	**0.34**	1WC0855	EPA 6010B	DRB	03/29/13 23:49	
Cadmium, total	**0.4 mg/kg dry**	**0.3**	1WC0855	EPA 6010B	DRB	03/29/13 23:49	
Chromium, total	**7.9 mg/kg dry**	**1.0**	1WC0855	EPA 6010B	DRB	03/29/13 23:49	
Mercury, total	<0.12 mg/kg dry	0.12	1WD0105	EPA 7471A	RVV	04/03/13 14:31	
Lead, total	**3.3 mg/kg dry**	**1.7**	1WC0855	EPA 6010B	DRB	03/29/13 23:49	
Selenium, total	<1.0 mg/kg dry	1.0	1WC0855	EPA 6010B	DRB	03/29/13 23:49	
1C31317-06 DBQ-6				Matrix:Soil		Collected: 03/21/13 09:06	
Chloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Vinyl Chloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Bromomethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Chloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,1-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Acetone	<0.117 mg/kg dry	0.117	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Carbon Disulfide	<0.012 mg/kg dry	0.012	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Methylene Chloride	<0.117 mg/kg dry	0.117	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
trans-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Methyl-t-butyl Ether (MTBE)	<0.005 mg/kg dry	0.005	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,1-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
cis-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
2-Butanone (MEK)	<0.012 mg/kg dry	0.012	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Chloroform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,1,1-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-06 DBQ-6				Matrix:Soil		Collected: 03/21/13 09:06	
Carbon Tetrachloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Benzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,2-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Trichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,2-Dichloropropane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Bromodichloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
cis-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
4-Methyl-2-pentanone (MIBK)	<0.012 mg/kg dry	0.012	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Toluene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
trans-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,1,2-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Tetrachloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
2-Hexanone (MBK)	<0.012 mg/kg dry	0.012	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Dibromochloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Chlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Ethylbenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Xylenes, total	<0.005 mg/kg dry	0.005	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Bromoform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,1,2,2-Tetrachloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,3-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,4-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
1,2-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 14:55	
Surrogate: Dibromofluoromethane	*125 %*			*88-125*	TVK	03/26/13 14:55	
Surrogate: 1,2-Dichloroethane-d4	*120 %*			*70-125*	TVK	03/26/13 14:55	
Surrogate: Toluene-d8	*93.8 %*			*88-115*	TVK	03/26/13 14:55	
Surrogate: 4-Bromofluorobenzene	*96.2 %*			*81-121*	TVK	03/26/13 14:55	
TEH, as gasoline	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 6:08	
TEH, as #2 diesel fuel	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 6:08	
TEH, as waste oil	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 6:08	
Total Extractable Hydrocarbons	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 6:08	
Surrogate: Pentacosane	*98.0 %*			*42-129*	EPP	03/28/13 6:08	
N-Nitrosodimethylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Phenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Aniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Bis(2-Chloroethyl) Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2-Chlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
1,3-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
1,4-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-06 DBQ-6				Matrix:Soil		Collected: 03/21/13 09:06	
Benzyl Alcohol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
1,2-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2-Methylphenol (o-Cresol)	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Bis[2-Chloroisopropyl]ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
n-Nitroso-di-n-propylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
(3 & 4)-Methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Hexachloroethane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Nitrobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Isophorone	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2-Nitrophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2,4-Dimethylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Bis (2-Chloroethoxy) Methane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2,4-Dichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
1,2,4-Trichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Naphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
4-Chloroaniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Hexachlorobutadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
4-Chloro-3-methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2-Methylnaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Hexachlorocyclopentadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2,4,6-Trichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2,4,5-Trichlorophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2-Chloronaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Dimethylphthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Acenaphthylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2,6-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
3-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Acenaphthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2,4-Dinitrophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Dibenzofuran	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
2,4-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
4-Nitrophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Diethyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Fluorene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
4-Chlorophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
4-Nitroaniline	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 1:03	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-06 DBQ-6				Matrix:Soil		Collected: 03/21/13 09:06	
4,6-Dinitro-2-methylphenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
N-Nitrosodiphenylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Azobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
4-Bromophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Hexachlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Pentachlorophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Phenanthrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Di-n-butyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Benzidine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Butyl Benzyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Benzo(a)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Chrysene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Bis(2-Ethylhexyl) Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Di-n-octyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Indeno(1,2,3-cd)Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
3,3´-Dichlorobenzidine	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Benzo(b)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Benzo(k)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Benzo(a)Pyrene	<0.31 mg/kg dry	0.31	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Dibenzo(a,h)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Benzo(g,h,i)perylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:03	
Surrogate: 2-Fluorophenol	*27.1 %*			*15-127*	EPP	04/05/13 1:03	
Surrogate: Phenol-d6	*33.5 %*			*16-132*	EPP	04/05/13 1:03	
Surrogate: Nitrobenzene-d5	*88.7 %*			*15-147*	EPP	04/05/13 1:03	
Surrogate: 2-Fluorobiphenyl	*84.6 %*			*33-133*	EPP	04/05/13 1:03	
Surrogate: 2,4,6-Tribromophenol	*59.3 %*			*24-163*	EPP	04/05/13 1:03	
Surrogate: Terphenyl-dl4	*94.2 %*			*16-151*	EPP	04/05/13 1:03	
% Solids	**86.4 %**	**0.1**	1WC0753	SM 2540 G	MID	03/25/13 9:19	
Silver, total	<0.3 mg/kg dry	0.3	1WC0855	EPA 6010B	DRB	03/29/13 23:55	
Arsenic, total	**2.0 mg/kg dry**	**1.3**	1WC0855	EPA 6010B	DRB	03/29/13 23:55	
Barium, total	**24.8 mg/kg dry**	**0.25**	1WC0855	EPA 6010B	DRB	03/29/13 23:55	
Cadmium, total	<0.3 mg/kg dry	0.3	1WC0855	EPA 6010B	DRB	03/29/13 23:55	
Chromium, total	**6.7 mg/kg dry**	**0.8**	1WC0855	EPA 6010B	DRB	03/29/13 23:55	
Mercury, total	<0.14 mg/kg dry	0.14	1WD0105	EPA 7471A	RVV	04/03/13 14:33	
Lead, total	**2.1 mg/kg dry**	**1.3**	1WC0855	EPA 6010B	DRB	03/29/13 23:55	

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3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-06 DBQ-6				Matrix:Soil		Collected: 03/21/13 09:06	
Selenium, total	<0.8 mg/kg dry	0.8	1WC0855	EPA 6010B	DRB	03/29/13 23:55	
1C31317-07 DBQ-7				Matrix:Soil		Collected: 03/21/13 08:38	
Chloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Vinyl Chloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Bromomethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Chloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,1-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Acetone	<0.095 mg/kg dry	0.095	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Carbon Disulfide	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Methylene Chloride	<0.095 mg/kg dry	0.095	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
trans-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Methyl-t-butyl Ether (MTBE)	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,1-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
cis-1,2-Dichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
2-Butanone (MEK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Chloroform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,1,1-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Carbon Tetrachloride	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Benzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,2-Dichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Trichloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,2-Dichloropropane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Bromodichloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
cis-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
4-Methyl-2-pentanone (MIBK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Toluene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
trans-1,3-Dichloropropene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,1,2-Trichloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Tetrachloroethylene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
2-Hexanone (MBK)	<0.010 mg/kg dry	0.010	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Dibromochloromethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Chlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Ethylbenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Xylenes, total	<0.004 mg/kg dry	0.004	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Bromoform	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,1,2,2-Tetrachloroethane	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,3-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	

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Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-07 DBQ-7				Matrix:Soil		Collected: 03/21/13 08:38	
1,4-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
1,2-Dichlorobenzene	<0.002 mg/kg dry	0.002	1WC0836	EPA 8260B	TVK	03/26/13 15:32	
Surrogate: Dibromofluoromethane	*114 %*			*88-125*	TVK	03/26/13 15:32	
Surrogate: 1,2-Dichloroethane-d4	*110 %*			*70-125*	TVK	03/26/13 15:32	
Surrogate: Toluene-d8	*101 %*			*88-115*	TVK	03/26/13 15:32	
Surrogate: 4-Bromofluorobenzene	*102 %*			*81-121*	TVK	03/26/13 15:32	
TEH, as gasoline	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 6:57	
TEH, as #2 diesel fuel	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 6:57	
TEH, as waste oil	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 6:57	
Total Extractable Hydrocarbons	<5 mg/kg	5	1WC0770	Iowa OA-2	EPP	03/28/13 6:57	
Surrogate: Pentacosane	*100 %*			*42-129*	EPP	03/28/13 6:57	
N-Nitrosodimethylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Phenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Aniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Bis(2-Chloroethyl) Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2-Chlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
1,3-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
1,4-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Benzyl Alcohol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
1,2-Dichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2-Methylphenol (o-Cresol)	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Bis[2-Chloroisopropyl]ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
n-Nitroso-di-n-propylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
(3 & 4)-Methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Hexachloroethane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Nitrobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Isophorone	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2-Nitrophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2,4-Dimethylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Bis (2-Chloroethoxy) Methane	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2,4-Dichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
1,2,4-Trichlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Naphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
4-Chloroaniline	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Hexachlorobutadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
4-Chloro-3-methylphenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2-Methylnaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Hexachlorocyclopentadiene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-07 DBQ-7				Matrix:Soil		Collected: 03/21/13 08:38	
2,4,6-Trichlorophenol	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2,4,5-Trichlorophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2-Chloronaphthalene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Dimethylphthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Acenaphthylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2,6-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
3-Nitroaniline	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Acenaphthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2,4-Dinitrophenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Dibenzofuran	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
2,4-Dinitrotoluene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
4-Nitrophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Diethyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Fluorene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
4-Chlorophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
4-Nitroaniline	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
4,6-Dinitro-2-methylphenol	<1.65 mg/kg dry	1.65	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
N-Nitrosodiphenylamine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Azobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
4-Bromophenyl Phenyl Ether	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Hexachlorobenzene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Pentachlorophenol	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Phenanthrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Di-n-butyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Benzidine	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Butyl Benzyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Benzo(a)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Chrysene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Bis(2-Ethylhexyl) Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Di-n-octyl Phthalate	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Indeno(1,2,3-cd)Pyrene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
3,3´-Dichlorobenzidine	<0.66 mg/kg dry	0.66	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Benzo(b)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-07 DBQ-7				Matrix:Soil		Collected: 03/21/13 08:38	
Benzo(k)Fluoranthene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Benzo(a)Pyrene	<0.31 mg/kg dry	0.31	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Dibenzo(a,h)anthracene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Benzo(g,h,i)perylene	<0.33 mg/kg dry	0.33	1WC0958	EPA 8270C	EPP	04/05/13 1:36	
Surrogate: 2-Fluorophenol	*28.4 %*			*15-127*	EPP	04/05/13 1:36	
Surrogate: Phenol-d6	*35.7 %*			*16-132*	EPP	04/05/13 1:36	
Surrogate: Nitrobenzene-d5	*58.0 %*			*15-147*	EPP	04/05/13 1:36	
Surrogate: 2-Fluorobiphenyl	*59.4 %*			*33-133*	EPP	04/05/13 1:36	
Surrogate: 2,4,6-Tribromophenol	*56.5 %*			*24-163*	EPP	04/05/13 1:36	
Surrogate: Terphenyl-dl4	*94.8 %*			*16-151*	EPP	04/05/13 1:36	
% Solids	**85.3 %**	**0.1**	1WC0753	SM 2540 G	MID	03/25/13 9:19	
Silver, total	<0.2 mg/kg dry	0.2	1WC0855	EPA 6010B	DRB	03/30/13 0:00	
Arsenic, total	**1.7 mg/kg dry**	**1.2**	1WC0855	EPA 6010B	DRB	03/30/13 0:00	
Barium, total	**22.6 mg/kg dry**	**0.24**	1WC0855	EPA 6010B	DRB	03/30/13 0:00	
Cadmium, total	<0.2 mg/kg dry	0.2	1WC0855	EPA 6010B	DRB	03/30/13 0:00	
Chromium, total	**7.5 mg/kg dry**	**0.7**	1WC0855	EPA 6010B	DRB	03/30/13 0:00	
Mercury, total	<0.09 mg/kg dry	0.09	1WD0105	EPA 7471A	RVV	04/03/13 14:35	
Lead, total	**2.1 mg/kg dry**	**1.2**	1WC0855	EPA 6010B	DRB	03/30/13 0:00	
Selenium, total	<0.7 mg/kg dry	0.7	1WC0855	EPA 6010B	DRB	03/30/13 0:00	
1C31317-08 DBQ-1W				Matrix:Water		Collected: 03/20/13 15:58	
Chloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Vinyl Chloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Bromomethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Chloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Acetone	<10.0 ug/L	10.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Carbon Disulfide	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Methylene Chloride	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Methyl-t-butyl Ether (MTBE)	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,1-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
2-Butanone (MEK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Chloroform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Carbon Tetrachloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Benzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,2-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-08 DBQ-1W				Matrix:Water	Collected: 03/20/13 15:58		
Trichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,2-Dichloropropane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Bromodichloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Toluene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Tetrachloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Dibromochloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Chlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Ethylbenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Xylenes, total	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Bromoform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,3-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/27/13 23:38	
Surrogate: Dibromofluoromethane	*108 %*			*80-124*	TVK	03/27/13 23:38	
Surrogate: 1,2-Dichloroethane-d4	*115 %*			*78-121*	TVK	03/27/13 23:38	
Surrogate: Toluene-d8	*99.3 %*			*89-115*	TVK	03/27/13 23:38	
Surrogate: 4-Bromofluorobenzene	*93.8 %*			*75-128*	TVK	03/27/13 23:38	
TEH, as gasoline	<0.5 mg/L	0.5	1WC0840	Iowa OA-2	EPP	03/29/13 14:56	
TEH, as #2 diesel fuel	<0.5 mg/L	0.5	1WC0840	Iowa OA-2	EPP	03/29/13 14:56	
TEH, as waste oil	<0.5 mg/L	0.5	1WC0840	Iowa OA-2	EPP	03/29/13 14:56	
Total Extractable Hydrocarbons	<0.5 mg/L	0.5	1WC0840	Iowa OA-2	EPP	03/29/13 14:56	
Surrogate: Pentacosane	*115 %*			*50-153*	EPP	03/29/13 14:56	
N-Nitrosodimethylamine	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Phenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Aniline	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Bis(2-Chloroethyl) Ether	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2-Chlorophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
1,3-Dichlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
1,4-Dichlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Benzyl Alcohol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
1,2-Dichlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2-Methylphenol (o-Cresol)	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-08 DBQ-1W				Matrix:Water		Collected: 03/20/13 15:58	
Bis[2-Chloroisopropyl]ether	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
n-Nitroso-di-n-propylamine	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
(3 & 4)-Methylphenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Hexachloroethane	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Nitrobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Isophorone	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2-Nitrophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2,4-Dimethylphenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Bis (2-Chloroethoxy) Methane	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2,4-Dichlorophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
1,2,4-Trichlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Naphthalene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
4-Chloroaniline	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Hexachlorobutadiene	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
4-Chloro-3-methylphenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2-Methylnaphthalene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Hexachlorocyclopentadiene	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2,4,6-Trichlorophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2,4,5-Trichlorophenol	<75 ug/L	75	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2-Chloronaphthalene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Dimethylphthalate	<22 ug/L	22	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2-Nitroaniline	<75 ug/L	75	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Acenaphthylene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2,6-Dinitrotoluene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
3-Nitroaniline	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Acenaphthene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2,4-Dinitrophenol	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Dibenzofuran	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
2,4-Dinitrotoluene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
4-Nitrophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Diethyl Phthalate	<45 ug/L	45	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Fluorene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
4-Chlorophenyl Phenyl Ether	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
4-Nitroaniline	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
4,6-Dinitro-2-methylphenol	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
N-Nitrosodiphenylamine	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Azobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-08 DBQ-1W				Matrix:Water		Collected: 03/20/13 15:58	
4-Bromophenyl Phenyl Ether	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Hexachlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Pentachlorophenol	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Phenanthrene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Anthracene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Di-n-butyl Phthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Fluoranthene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Benzidine	<75 ug/L	75	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Pyrene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Butyl Benzyl Phthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Benzo(a)anthracene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Chrysene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Bis(2-Ethylhexyl) Phthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Di-n-octyl Phthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Indeno(1,2,3-cd)Pyrene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
3,3´-Dichlorobenzidine	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Benzo(b)Fluoranthene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Benzo(k)Fluoranthene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Benzo(a)Pyrene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Dibenzo(a,h)anthracene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Benzo(g,h,i)perylene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 1:35	
Surrogate: 2-Fluorophenol	*56.8 %*			*21-96*	EPP	04/04/13 1:35	
Surrogate: Phenol-d6	*64.9 %*			*21-109*	EPP	04/04/13 1:35	
Surrogate: Nitrobenzene-d5	*45.8 %*			*20-120*	EPP	04/04/13 1:35	
Surrogate: 2-Fluorobiphenyl	*66.5 %*			*20-110*	EPP	04/04/13 1:35	
Surrogate: 2,4,6-Tribromophenol	*90.9 %*			*41-159*	EPP	04/04/13 1:35	
Surrogate: Terphenyl-dl4	*96.1 %*			*35-144*	EPP	04/04/13 1:35	
Silver, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/29/13 23:39	
Arsenic, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/29/13 23:39	
Barium, dissolved	**0.0975 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/29/13 23:39	
Cadmium, dissolved	**0.0017 mg/L**	**0.0008**	1WC0798	EPA 6020A	RVV	03/29/13 23:39	
Chromium, dissolved	<0.0080 mg/L	0.0080	1WC0798	EPA 6020A	RVV	03/29/13 23:39	
Mercury, dissolved	<0.00050 mg/L	0.00050	1WC0786	EPA 7470A	RVV	03/29/13 13:19	
Lead, dissolved	<0.0020 mg/L	0.0020	1WC0798	EPA 6020A	RVV	03/29/13 23:39	
Selenium, dissolved	**0.0043 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/29/13 23:39	
1C31317-09 DBQ-2W				Matrix:Water		Collected: 03/20/13 15:14	
Chloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Vinyl Chloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-09 DBQ-2W				Matrix:Water		Collected: 03/20/13 15:14	
Bromomethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Chloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Acetone	<10.0 ug/L	10.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Carbon Disulfide	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Methylene Chloride	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Methyl-t-butyl Ether (MTBE)	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,1-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
2-Butanone (MEK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Chloroform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Carbon Tetrachloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Benzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,2-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Trichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,2-Dichloropropane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Bromodichloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Toluene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Tetrachloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Dibromochloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Chlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Ethylbenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Xylenes, total	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Bromoform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,3-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 0:21	
Surrogate: Dibromofluoromethane	*112 %*			*80-124*	TVK	03/28/13 0:21	
Surrogate: 1,2-Dichloroethane-d4	*114 %*			*78-121*	TVK	03/28/13 0:21	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-09 DBQ-2W				Matrix:Water	Collected: 03/20/13 15:14		
Surrogate: Toluene-d8	*97.0 %*			*89-115*	TVK	03/28/13 0:21	
Surrogate: 4-Bromofluorobenzene	*94.8 %*			*75-128*	TVK	03/28/13 0:21	
TEH, as gasoline	<0.2 mg/L	0.2	1WC0840	Iowa OA-2	EPP	03/29/13 15:46	
TEH, as #2 diesel fuel	**0.4 mg/L**	**0.2**	1WC0840	Iowa OA-2	EPP	03/29/13 15:46	D-06
TEH, as waste oil	<0.2 mg/L	0.2	1WC0840	Iowa OA-2	EPP	03/29/13 15:46	
Total Extractable Hydrocarbons	**0.4 mg/L**	**0.2**	1WC0840	Iowa OA-2	EPP	03/29/13 15:46	
Surrogate: Pentacosane	*129 %*			*50-153*	EPP	03/29/13 15:46	
N-Nitrosodimethylamine	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Phenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Aniline	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Bis(2-Chloroethyl) Ether	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2-Chlorophenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
1,3-Dichlorobenzene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
1,4-Dichlorobenzene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Benzyl Alcohol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
1,2-Dichlorobenzene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2-Methylphenol (o-Cresol)	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Bis[2-Chloroisopropyl]ether	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
n-Nitroso-di-n-propylamine	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
(3 & 4)-Methylphenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Hexachloroethane	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Nitrobenzene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Isophorone	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2-Nitrophenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2,4-Dimethylphenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Bis (2-Chloroethoxy) Methane	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2,4-Dichlorophenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
1,2,4-Trichlorobenzene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Naphthalene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
4-Chloroaniline	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Hexachlorobutadiene	<28 ug/L	28	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
4-Chloro-3-methylphenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2-Methylnaphthalene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Hexachlorocyclopentadiene	<28 ug/L	28	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2,4,6-Trichlorophenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2,4,5-Trichlorophenol	<70 ug/L	70	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2-Chloronaphthalene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2-Nitroaniline	<70 ug/L	70	1WC0817	EPA 8270C	EPP	04/04/13 2:08	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-09 DBQ-2W				Matrix:Water		Collected: 03/20/13 15:14	
Dimethylphthalate	<21 ug/L	21	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Acenaphthylene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2,6-Dinitrotoluene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
3-Nitroaniline	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Acenaphthene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2,4-Dinitrophenol	<28 ug/L	28	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Dibenzofuran	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
2,4-Dinitrotoluene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
4-Nitrophenol	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Diethyl Phthalate	<42 ug/L	42	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Fluorene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
4-Chlorophenyl Phenyl Ether	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
4-Nitroaniline	<28 ug/L	28	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
4,6-Dinitro-2-methylphenol	<28 ug/L	28	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
N-Nitrosodiphenylamine	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Azobenzene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
4-Bromophenyl Phenyl Ether	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Hexachlorobenzene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Pentachlorophenol	<28 ug/L	28	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Phenanthrene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Anthracene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Di-n-butyl Phthalate	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Fluoranthene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Benzidine	<70 ug/L	70	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Pyrene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Butyl Benzyl Phthalate	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Benzo(a)anthracene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Chrysene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Bis(2-Ethylhexyl) Phthalate	**32 ug/L**	**14**	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Di-n-octyl Phthalate	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Indeno(1,2,3-cd)Pyrene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
3,3´-Dichlorobenzidine	<28 ug/L	28	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Benzo(b)Fluoranthene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Benzo(k)Fluoranthene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Benzo(a)Pyrene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Dibenzo(a,h)anthracene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	
Benzo(g,h,i)perylene	<14 ug/L	14	1WC0817	EPA 8270C	EPP	04/04/13 2:08	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-09 DBQ-2W				Matrix:Water		Collected: 03/20/13 15:14	
Surrogate: 2-Fluorophenol	*73.8 %*			*21-96*	EPP	04/04/13 2:08	
Surrogate: Phenol-d6	*73.9 %*			*21-109*	EPP	04/04/13 2:08	
Surrogate: Nitrobenzene-d5	*60.4 %*			*20-120*	EPP	04/04/13 2:08	
Surrogate: 2-Fluorobiphenyl	*65.1 %*			*20-110*	EPP	04/04/13 2:08	
Surrogate: 2,4,6-Tribromophenol	*96.1 %*			*41-159*	EPP	04/04/13 2:08	
Surrogate: Terphenyl-dl4	*89.7 %*			*35-144*	EPP	04/04/13 2:08	
Silver, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:01	
Arsenic, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:01	
Barium, dissolved	**0.612 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/30/13 0:01	
Cadmium, dissolved	<0.0008 mg/L	0.0008	1WC0798	EPA 6020A	RVV	03/30/13 0:01	
Chromium, dissolved	<0.0080 mg/L	0.0080	1WC0798	EPA 6020A	RVV	03/30/13 0:01	
Mercury, dissolved	<0.00050 mg/L	0.00050	1WC0786	EPA 7470A	RVV	03/29/13 13:25	
Lead, dissolved	<0.0020 mg/L	0.0020	1WC0798	EPA 6020A	RVV	03/30/13 0:01	
Selenium, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:01	
1C31317-10 DBQ-3W				Matrix:Water		Collected: 03/20/13 16:45	
Chloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Vinyl Chloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Bromomethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Chloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Acetone	<10.0 ug/L	10.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Carbon Disulfide	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Methylene Chloride	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Methyl-t-butyl Ether (MTBE)	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,1-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
2-Butanone (MEK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Chloroform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Carbon Tetrachloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Benzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,2-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Trichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,2-Dichloropropane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Bromodichloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-10 DBQ-3W				Matrix:Water		Collected: 03/20/13 16:45	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Toluene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Tetrachloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Dibromochloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Chlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Ethylbenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Xylenes, total	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Bromoform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,3-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:06	
Surrogate: Dibromofluoromethane	*112 %*			*80-124*	TVK	03/28/13 1:06	
Surrogate: 1,2-Dichloroethane-d4	*118 %*			*78-121*	TVK	03/28/13 1:06	
Surrogate: Toluene-d8	*97.8 %*			*89-115*	TVK	03/28/13 1:06	
Surrogate: 4-Bromofluorobenzene	*95.2 %*			*75-128*	TVK	03/28/13 1:06	
TEH, as gasoline	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 16:35	
TEH, as #2 diesel fuel	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 16:35	
TEH, as waste oil	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 16:35	
Total Extractable Hydrocarbons	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 16:35	
Surrogate: Pentacosane	*117 %*			*50-153*	EPP	03/29/13 16:35	
N-Nitrosodimethylamine	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Phenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Aniline	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Bis(2-Chloroethyl) Ether	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2-Chlorophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
1,3-Dichlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
1,4-Dichlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Benzyl Alcohol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
1,2-Dichlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2-Methylphenol (o-Cresol)	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Bis[2-Chloroisopropyl]ether	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
n-Nitroso-di-n-propylamine	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
(3 & 4)-Methylphenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Hexachloroethane	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-10 DBQ-3W				Matrix:Water		Collected: 03/20/13 16:45	
Nitrobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Isophorone	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2-Nitrophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2,4-Dimethylphenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Bis (2-Chloroethoxy) Methane	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2,4-Dichlorophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
1,2,4-Trichlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Naphthalene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
4-Chloroaniline	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Hexachlorobutadiene	<31 ug/L	31	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
4-Chloro-3-methylphenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2-Methylnaphthalene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Hexachlorocyclopentadiene	<31 ug/L	31	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2,4,6-Trichlorophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2,4,5-Trichlorophenol	<77 ug/L	77	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2-Chloronaphthalene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Dimethylphthalate	<23 ug/L	23	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2-Nitroaniline	<77 ug/L	77	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Acenaphthylene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2,6-Dinitrotoluene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
3-Nitroaniline	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Acenaphthene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2,4-Dinitrophenol	<31 ug/L	31	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Dibenzofuran	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
2,4-Dinitrotoluene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
4-Nitrophenol	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Diethyl Phthalate	<46 ug/L	46	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Fluorene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
4-Chlorophenyl Phenyl Ether	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
4-Nitroaniline	<31 ug/L	31	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
4,6-Dinitro-2-methylphenol	<31 ug/L	31	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
N-Nitrosodiphenylamine	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Azobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
4-Bromophenyl Phenyl Ether	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Hexachlorobenzene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Pentachlorophenol	**78 ug/L**	**31**	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Phenanthrene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	

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3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-10 DBQ-3W				Matrix:Water		Collected: 03/20/13 16:45	
Anthracene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Di-n-butyl Phthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Fluoranthene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Benzidine	<77 ug/L	77	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Pyrene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Butyl Benzyl Phthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Benzo(a)anthracene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Chrysene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Bis(2-Ethylhexyl) Phthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Di-n-octyl Phthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Indeno(1,2,3-cd)Pyrene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
3,3´-Dichlorobenzidine	<31 ug/L	31	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Benzo(b)Fluoranthene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Benzo(k)Fluoranthene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Benzo(a)Pyrene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Dibenzo(a,h)anthracene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Benzo(g,h,i)perylene	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 2:40	
Surrogate: 2-Fluorophenol	*77.1 %*			*21-96*	EPP	04/04/13 2:40	
Surrogate: Phenol-d6	*83.0 %*			*21-109*	EPP	04/04/13 2:40	
Surrogate: Nitrobenzene-d5	*85.3 %*			*20-120*	EPP	04/04/13 2:40	
Surrogate: 2-Fluorobiphenyl	*77.1 %*			*20-110*	EPP	04/04/13 2:40	
Surrogate: 2,4,6-Tribromophenol	*89.2 %*			*41-159*	EPP	04/04/13 2:40	
Surrogate: Terphenyl-dl4	*101 %*			*35-144*	EPP	04/04/13 2:40	
Silver, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:08	
Arsenic, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:08	
Barium, dissolved	**0.279 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/30/13 0:08	
Cadmium, dissolved	**0.0008 mg/L**	**0.0008**	1WC0798	EPA 6020A	RVV	03/30/13 0:08	
Chromium, dissolved	<0.0080 mg/L	0.0080	1WC0798	EPA 6020A	RVV	03/30/13 0:08	
Mercury, dissolved	<0.00050 mg/L	0.00050	1WC0786	EPA 7470A	RVV	03/29/13 13:27	
Lead, dissolved	<0.0020 mg/L	0.0020	1WC0798	EPA 6020A	RVV	03/30/13 0:08	
Selenium, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:08	
1C31317-11 DBQ-4W				Matrix:Water		Collected: 03/20/13 17:00	
Chloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Vinyl Chloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Bromomethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Chloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Acetone	<10.0 ug/L	10.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	

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3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-11 DBQ-4W				Matrix:Water		Collected: 03/20/13 17:00	
Carbon Disulfide	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Methylene Chloride	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Methyl-t-butyl Ether (MTBE)	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,1-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
2-Butanone (MEK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Chloroform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Carbon Tetrachloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Benzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,2-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Trichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,2-Dichloropropane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Bromodichloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Toluene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Tetrachloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Dibromochloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Chlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Ethylbenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Xylenes, total	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Bromoform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,3-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 1:50	
Surrogate: Dibromofluoromethane	*111 %*			*80-124*	TVK	03/28/13 1:50	
Surrogate: 1,2-Dichloroethane-d4	*114 %*			*78-121*	TVK	03/28/13 1:50	
Surrogate: Toluene-d8	*99.5 %*			*89-115*	TVK	03/28/13 1:50	
Surrogate: 4-Bromofluorobenzene	*93.6 %*			*75-128*	TVK	03/28/13 1:50	
TEH, as gasoline	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 17:24	
TEH, as #2 diesel fuel	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 17:24	
TEH, as waste oil	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 17:24	

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3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-11 DBQ-4W				Matrix:Water		Collected: 03/20/13 17:00	
Total Extractable Hydrocarbons	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 17:24	
Surrogate: Pentacosane	*120 %*			*50-153*	EPP	03/29/13 17:24	
N-Nitrosodimethylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Phenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Aniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Bis(2-Chloroethyl) Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2-Chlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
1,3-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
1,4-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Benzyl Alcohol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
1,2-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2-Methylphenol (o-Cresol)	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Bis[2-Chloroisopropyl]ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
n-Nitroso-di-n-propylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
(3 & 4)-Methylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Hexachloroethane	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Nitrobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Isophorone	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2-Nitrophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2,4-Dimethylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Bis (2-Chloroethoxy) Methane	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2,4-Dichlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
1,2,4-Trichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Naphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
4-Chloroaniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Hexachlorobutadiene	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
4-Chloro-3-methylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2-Methylnaphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Hexachlorocyclopentadiene	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2,4,6-Trichlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2,4,5-Trichlorophenol	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2-Chloronaphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Dimethylphthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2-Nitroaniline	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Acenaphthylene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2,6-Dinitrotoluene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
3-Nitroaniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-11 DBQ-4W				Matrix:Water		Collected: 03/20/13 17:00	
Acenaphthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2,4-Dinitrophenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Dibenzofuran	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
2,4-Dinitrotoluene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
4-Nitrophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Diethyl Phthalate	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Fluorene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
4-Chlorophenyl Phenyl Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
4-Nitroaniline	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
4,6-Dinitro-2-methylphenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
N-Nitrosodiphenylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Azobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
4-Bromophenyl Phenyl Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Hexachlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Pentachlorophenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Phenanthrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Di-n-butyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Benzidine	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Butyl Benzyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Benzo(a)anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Chrysene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Bis(2-Ethylhexyl) Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Di-n-octyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Indeno(1,2,3-cd)Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
3,3′-Dichlorobenzidine	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Benzo(b)Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Benzo(k)Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Benzo(a)Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Dibenzo(a,h)anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Benzo(g,h,i)perylene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:13	
Surrogate: 2-Fluorophenol	*50.2 %*			*21-96*	EPP	04/04/13 3:13	
Surrogate: Phenol-d6	*60.1 %*			*21-109*	EPP	04/04/13 3:13	
Surrogate: Nitrobenzene-d5	*77.6 %*			*20-120*	EPP	04/04/13 3:13	
Surrogate: 2-Fluorobiphenyl	*76.0 %*			*20-110*	EPP	04/04/13 3:13	
Surrogate: 2,4,6-Tribromophenol	*43.4 %*			*41-159*	EPP	04/04/13 3:13	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-11 DBQ-4W				Matrix:Water		Collected: 03/20/13 17:00	
Surrogate: Terphenyl-dl4	*91.5 %*			*35-144*	EPP	04/04/13 3:13	
Silver, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:15	
Arsenic, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:15	
Barium, dissolved	**0.0736 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/30/13 0:15	
Cadmium, dissolved	**0.0012 mg/L**	**0.0008**	1WC0798	EPA 6020A	RVV	03/30/13 0:15	
Chromium, dissolved	<0.0080 mg/L	0.0080	1WC0798	EPA 6020A	RVV	03/30/13 0:15	
Mercury, dissolved	<0.00050 mg/L	0.00050	1WC0786	EPA 7470A	RVV	03/29/13 13:29	
Lead, dissolved	<0.0020 mg/L	0.0020	1WC0798	EPA 6020A	RVV	03/30/13 0:15	
Selenium, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:15	
1C31317-12 DBQ-5W				Matrix:Water		Collected: 03/20/13 14:35	
Chloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Vinyl Chloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Bromomethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Chloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Acetone	<10.0 ug/L	10.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Carbon Disulfide	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Methylene Chloride	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Methyl-t-butyl Ether (MTBE)	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,1-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
2-Butanone (MEK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Chloroform	**3.9 ug/L**	**1.0**	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Carbon Tetrachloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Benzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,2-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Trichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,2-Dichloropropane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Bromodichloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Toluene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Tetrachloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-12 DBQ-5W				Matrix:Water		Collected: 03/20/13 14:35	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Dibromochloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Chlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Ethylbenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Xylenes, total	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Bromoform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,3-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 2:34	
Surrogate: Dibromofluoromethane	*110 %*			*80-124*	TVK	03/28/13 2:34	
Surrogate: 1,2-Dichloroethane-d4	*114 %*			*78-121*	TVK	03/28/13 2:34	
Surrogate: Toluene-d8	*95.2 %*			*89-115*	TVK	03/28/13 2:34	
Surrogate: 4-Bromofluorobenzene	*94.4 %*			*75-128*	TVK	03/28/13 2:34	
TEH, as gasoline	<0.2 mg/L	0.2	1WC0840	Iowa OA-2	EPP	03/29/13 18:13	
TEH, as #2 diesel fuel	<0.2 mg/L	0.2	1WC0840	Iowa OA-2	EPP	03/29/13 18:13	
TEH, as waste oil	<0.2 mg/L	0.2	1WC0840	Iowa OA-2	EPP	03/29/13 18:13	
Total Extractable Hydrocarbons	<0.2 mg/L	0.2	1WC0840	Iowa OA-2	EPP	03/29/13 18:13	
Surrogate: Pentacosane	*118 %*			*50-153*	EPP	03/29/13 18:13	
N-Nitrosodimethylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Phenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Aniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Bis(2-Chloroethyl) Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2-Chlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
1,3-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
1,4-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Benzyl Alcohol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
1,2-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2-Methylphenol (o-Cresol)	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Bis[2-Chloroisopropyl]ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
n-Nitroso-di-n-propylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
(3 & 4)-Methylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Hexachloroethane	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Nitrobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Isophorone	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2-Nitrophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2,4-Dimethylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Bis (2-Chloroethoxy) Methane	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-12 DBQ-5W				Matrix:Water		Collected: 03/20/13 14:35	
2,4-Dichlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
1,2,4-Trichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Naphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
4-Chloroaniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Hexachlorobutadiene	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
4-Chloro-3-methylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2-Methylnaphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Hexachlorocyclopentadiene	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2,4,6-Trichlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2,4,5-Trichlorophenol	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2-Chloronaphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Dimethylphthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2-Nitroaniline	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Acenaphthylene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2,6-Dinitrotoluene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
3-Nitroaniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Acenaphthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2,4-Dinitrophenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Dibenzofuran	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
2,4-Dinitrotoluene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
4-Nitrophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Diethyl Phthalate	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Fluorene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
4-Chlorophenyl Phenyl Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
4-Nitroaniline	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
4,6-Dinitro-2-methylphenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
N-Nitrosodiphenylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Azobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
4-Bromophenyl Phenyl Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Hexachlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Pentachlorophenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Phenanthrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Di-n-butyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Benzidine	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-12 DBQ-5W				Matrix:Water		Collected: 03/20/13 14:35	
Butyl Benzyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Benzo(a)anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Chrysene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Bis(2-Ethylhexyl) Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Di-n-octyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Indeno(1,2,3-cd)Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
3,3´-Dichlorobenzidine	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Benzo(b)Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Benzo(k)Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Benzo(a)Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Dibenzo(a,h)anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Benzo(g,h,i)perylene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 3:46	
Surrogate: 2-Fluorophenol	*65.3 %*			*21-96*	EPP	04/04/13 3:46	
Surrogate: Phenol-d6	*69.0 %*			*21-109*	EPP	04/04/13 3:46	
Surrogate: Nitrobenzene-d5	*88.6 %*			*20-120*	EPP	04/04/13 3:46	
Surrogate: 2-Fluorobiphenyl	*84.1 %*			*20-110*	EPP	04/04/13 3:46	
Surrogate: 2,4,6-Tribromophenol	*80.8 %*			*41-159*	EPP	04/04/13 3:46	
Surrogate: Terphenyl-dl4	*105 %*			*35-144*	EPP	04/04/13 3:46	
Silver, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:22	
Arsenic, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:22	
Barium, dissolved	**0.168 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/30/13 0:22	
Cadmium, dissolved	**0.0033 mg/L**	**0.0008**	1WC0798	EPA 6020A	RVV	03/30/13 0:22	
Chromium, dissolved	<0.0080 mg/L	0.0080	1WC0798	EPA 6020A	RVV	03/30/13 0:22	
Mercury, dissolved	<0.00050 mg/L	0.00050	1WC0786	EPA 7470A	RVV	03/29/13 13:31	
Lead, dissolved	<0.0020 mg/L	0.0020	1WC0798	EPA 6020A	RVV	03/30/13 0:22	
Selenium, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:22	
1C31317-13 DBQ-6W				Matrix:Water		Collected: 03/21/13 09:23	
Chloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Vinyl Chloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Bromomethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Chloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Acetone	<10.0 ug/L	10.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Carbon Disulfide	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Methylene Chloride	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Methyl-t-butyl Ether (MTBE)	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,1-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-13 DBQ-6W				Matrix:Water		Collected: 03/21/13 09:23	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
2-Butanone (MEK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Chloroform	**3.6 ug/L**	**1.0**	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Carbon Tetrachloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Benzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,2-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Trichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,2-Dichloropropane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Bromodichloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Toluene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Tetrachloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Dibromochloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Chlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Ethylbenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Xylenes, total	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Bromoform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,3-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 3:17	
Surrogate: Dibromofluoromethane	*109 %*			*80-124*	TVK	03/28/13 3:17	
Surrogate: 1,2-Dichloroethane-d4	*115 %*			*78-121*	TVK	03/28/13 3:17	
Surrogate: Toluene-d8	*98.1 %*			*89-115*	TVK	03/28/13 3:17	
Surrogate: 4-Bromofluorobenzene	*95.7 %*			*75-128*	TVK	03/28/13 3:17	
TEH, as gasoline	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 19:02	
TEH, as #2 diesel fuel	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 19:02	
TEH, as waste oil	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 19:02	
Total Extractable Hydrocarbons	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 19:02	
Surrogate: Pentacosane	*119 %*			*50-153*	EPP	03/29/13 19:02	
N-Nitrosodimethylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Phenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Aniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-13 DBQ-6W				Matrix:Water		Collected: 03/21/13 09:23	
Bis(2-Chloroethyl) Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2-Chlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
1,3-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
1,4-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Benzyl Alcohol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
1,2-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2-Methylphenol (o-Cresol)	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Bis[2-Chloroisopropyl]ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
n-Nitroso-di-n-propylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
(3 & 4)-Methylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Hexachloroethane	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Nitrobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Isophorone	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2-Nitrophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2,4-Dimethylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Bis (2-Chloroethoxy) Methane	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2,4-Dichlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
1,2,4-Trichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Naphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
4-Chloroaniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Hexachlorobutadiene	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
4-Chloro-3-methylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2-Methylnaphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Hexachlorocyclopentadiene	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2,4,6-Trichlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2,4,5-Trichlorophenol	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2-Chloronaphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2-Nitroaniline	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Dimethylphthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Acenaphthylene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2,6-Dinitrotoluene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
3-Nitroaniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Acenaphthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2,4-Dinitrophenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Dibenzofuran	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
2,4-Dinitrotoluene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
4-Nitrophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-13 DBQ-6W				Matrix:Water		Collected: 03/21/13 09:23	
Diethyl Phthalate	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Fluorene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
4-Chlorophenyl Phenyl Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
4-Nitroaniline	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
4,6-Dinitro-2-methylphenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
N-Nitrosodiphenylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Azobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
4-Bromophenyl Phenyl Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Hexachlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Pentachlorophenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Phenanthrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Di-n-butyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Benzidine	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Butyl Benzyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Benzo(a)anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Chrysene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Bis(2-Ethylhexyl) Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Di-n-octyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Indeno(1,2,3-cd)Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
3,3′-Dichlorobenzidine	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Benzo(b)Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Benzo(k)Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Benzo(a)Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Dibenzo(a,h)anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Benzo(g,h,i)perylene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:18	
Surrogate: 2-Fluorophenol	*43.1 %*			*21-96*	EPP	04/04/13 4:18	
Surrogate: Phenol-d6	*45.7 %*			*21-109*	EPP	04/04/13 4:18	
Surrogate: Nitrobenzene-d5	*80.3 %*			*20-120*	EPP	04/04/13 4:18	
Surrogate: 2-Fluorobiphenyl	*73.6 %*			*20-110*	EPP	04/04/13 4:18	
Surrogate: 2,4,6-Tribromophenol	*47.3 %*			*41-159*	EPP	04/04/13 4:18	
Surrogate: Terphenyl-dl4	*97.5 %*			*35-144*	EPP	04/04/13 4:18	
Silver, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:29	
Arsenic, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:29	
Barium, dissolved	**0.0918 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/30/13 0:29	
Cadmium, dissolved	<0.0008 mg/L	0.0008	1WC0798	EPA 6020A	RVV	03/30/13 0:29	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-13 DBQ-6W				Matrix:Water		Collected: 03/21/13 09:23	
Chromium, dissolved	<0.0080 mg/L	0.0080	1WC0798	EPA 6020A	RVV	03/30/13 0:29	
Mercury, dissolved	<0.00050 mg/L	0.00050	1WC0786	EPA 7470A	RVV	03/29/13 13:34	
Lead, dissolved	<0.0020 mg/L	0.0020	1WC0798	EPA 6020A	RVV	03/30/13 0:29	
Selenium, dissolved	**0.0041 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/30/13 0:29	
1C31317-14 DBQ-7W				Matrix:Water		Collected: 03/20/13 09:30	
Chloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Vinyl Chloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Bromomethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Chloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Acetone	<10.0 ug/L	10.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Carbon Disulfide	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Methylene Chloride	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Methyl-t-butyl Ether (MTBE)	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,1-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
2-Butanone (MEK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Chloroform	**2.3 ug/L**	**1.0**	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Carbon Tetrachloride	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Benzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,2-Dichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Trichloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,2-Dichloropropane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Bromodichloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Toluene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Tetrachloroethylene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Dibromochloromethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Chlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Ethylbenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Xylenes, total	<2.0 ug/L	2.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-14 DBQ-7W				Matrix:Water		Collected: 03/20/13 09:30	
Bromoform	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,3-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1WC0908	EPA 8260B	TVK	03/28/13 4:01	
Surrogate: Dibromofluoromethane	*113 %*			*80-124*	TVK	03/28/13 4:01	
Surrogate: 1,2-Dichloroethane-d4	*115 %*			*78-121*	TVK	03/28/13 4:01	
Surrogate: Toluene-d8	*97.5 %*			*89-115*	TVK	03/28/13 4:01	
Surrogate: 4-Bromofluorobenzene	*93.2 %*			*75-128*	TVK	03/28/13 4:01	
TEH, as gasoline	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 19:50	
TEH, as #2 diesel fuel	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 19:50	
TEH, as waste oil	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 19:50	
Total Extractable Hydrocarbons	<0.1 mg/L	0.1	1WC0840	Iowa OA-2	EPP	03/29/13 19:50	
Surrogate: Pentacosane	*114 %*			*50-153*	EPP	03/29/13 19:50	
N-Nitrosodimethylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Phenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Aniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Bis(2-Chloroethyl) Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2-Chlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
1,3-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
1,4-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Benzyl Alcohol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
1,2-Dichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2-Methylphenol (o-Cresol)	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Bis[2-Chloroisopropyl]ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
n-Nitroso-di-n-propylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
(3 & 4)-Methylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Hexachloroethane	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Nitrobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Isophorone	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2-Nitrophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2,4-Dimethylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Bis (2-Chloroethoxy) Methane	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2,4-Dichlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
1,2,4-Trichlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Naphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
4-Chloroaniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Hexachlorobutadiene	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:51	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-14 DBQ-7W				Matrix:Water		Collected: 03/20/13 09:30	
4-Chloro-3-methylphenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2-Methylnaphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Hexachlorocyclopentadiene	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2,4,6-Trichlorophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2,4,5-Trichlorophenol	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2-Chloronaphthalene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2-Nitroaniline	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Dimethylphthalate	<15 ug/L	15	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Acenaphthylene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2,6-Dinitrotoluene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
3-Nitroaniline	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Acenaphthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2,4-Dinitrophenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Dibenzofuran	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
2,4-Dinitrotoluene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
4-Nitrophenol	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Diethyl Phthalate	<30 ug/L	30	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Fluorene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
4-Chlorophenyl Phenyl Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
4-Nitroaniline	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
4,6-Dinitro-2-methylphenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
N-Nitrosodiphenylamine	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Azobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
4-Bromophenyl Phenyl Ether	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Hexachlorobenzene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Pentachlorophenol	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Phenanthrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Di-n-butyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Benzidine	<50 ug/L	50	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Butyl Benzyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Benzo(a)anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Chrysene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Bis(2-Ethylhexyl) Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Di-n-octyl Phthalate	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1C31317-14 DBQ-7W				Matrix:Water		Collected: 03/20/13 09:30	
Indeno(1,2,3-cd)Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
3,3´-Dichlorobenzidine	<20 ug/L	20	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Benzo(b)Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Benzo(k)Fluoranthene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Benzo(a)Pyrene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Dibenzo(a,h)anthracene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Benzo(g,h,i)perylene	<10 ug/L	10	1WC0817	EPA 8270C	EPP	04/04/13 4:51	
Surrogate: 2-Fluorophenol	*47.2 %*			*21-96*	EPP	04/04/13 4:51	
Surrogate: Phenol-d6	*57.7 %*			*21-109*	EPP	04/04/13 4:51	
Surrogate: Nitrobenzene-d5	*75.0 %*			*20-120*	EPP	04/04/13 4:51	
Surrogate: 2-Fluorobiphenyl	*79.5 %*			*20-110*	EPP	04/04/13 4:51	
Surrogate: 2,4,6-Tribromophenol	*72.9 %*			*41-159*	EPP	04/04/13 4:51	
Surrogate: Terphenyl-dl4	*91.9 %*			*35-144*	EPP	04/04/13 4:51	
Silver, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:36	
Arsenic, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:36	
Barium, dissolved	**0.109 mg/L**	**0.0040**	1WC0798	EPA 6020A	RVV	03/30/13 0:36	
Cadmium, dissolved	<0.0008 mg/L	0.0008	1WC0798	EPA 6020A	RVV	03/30/13 0:36	
Chromium, dissolved	<0.0080 mg/L	0.0080	1WC0798	EPA 6020A	RVV	03/30/13 0:36	
Mercury, dissolved	<0.00050 mg/L	0.00050	1WC0786	EPA 7470A	RVV	03/29/13 13:40	
Lead, dissolved	<0.0020 mg/L	0.0020	1WC0798	EPA 6020A	RVV	03/30/13 0:36	
Selenium, dissolved	<0.0040 mg/L	0.0040	1WC0798	EPA 6020A	RVV	03/30/13 0:36	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0836 - EPA 5030B										
Blank (1WC0836-BLK1)				Prepared & Analyzed: 03/26/13						
Surrogate: Dibromofluoromethane	*0.05013*		*mg/kg wet*	*0.0500000*		*100*	*88-125*			
Surrogate: 1,2-Dichloroethane-d4	*0.04932*		*"*	*0.0500000*		*98.6*	*70-125*			
Surrogate: Toluene-d8	*0.05332*		*"*	*0.0500000*		*107*	*88-115*			
Surrogate: 4-Bromofluorobenzene	*0.05066*		*"*	*0.0500000*		*101*	*81-121*			
Chloromethane	ND	0.001	"							
Vinyl Chloride	ND	0.001	"							
Bromomethane	ND	0.001	"							
Chloroethane	ND	0.001	"							
1,1-Dichloroethylene	ND	0.001	"							
Acetone	ND	0.050	"							
Carbon Disulfide	ND	0.005	"							
Methylene Chloride	ND	0.050	"							
trans-1,2-Dichloroethylene	ND	0.001	"							
Methyl-t-butyl Ether (MTBE)	ND	0.002	"							
1,1-Dichloroethane	ND	0.001	"							
cis-1,2-Dichloroethylene	ND	0.001	"							
2-Butanone (MEK)	ND	0.005	"							
Chloroform	ND	0.001	"							
1,1,1-Trichloroethane	ND	0.001	"							
Carbon Tetrachloride	ND	0.001	"							
Benzene	ND	0.001	"							
1,2-Dichloroethane	ND	0.001	"							
Trichloroethylene	ND	0.001	"							
1,2-Dichloropropane	ND	0.001	"							
Bromodichloromethane	ND	0.001	"							
cis-1,3-Dichloropropene	ND	0.001	"							
4-Methyl-2-pentanone (MIBK)	ND	0.005	"							
Toluene	ND	0.001	"							
trans-1,3-Dichloropropene	ND	0.001	"							
1,1,2-Trichloroethane	ND	0.001	"							
Tetrachloroethylene	ND	0.001	"							
2-Hexanone (MBK)	ND	0.005	"							
Dibromochloromethane	ND	0.001	"							
Chlorobenzene	ND	0.001	"							
Ethylbenzene	ND	0.001	"							
Xylenes, total	ND	0.002	"							
Bromoform	ND	0.001	"							
1,1,2,2-Tetrachloroethane	ND	0.001	"							

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0836 - EPA 5030B										
Blank (1WC0836-BLK1)				Prepared & Analyzed: 03/26/13						
1,3-Dichlorobenzene	ND	0.001	mg/kg wet							
1,4-Dichlorobenzene	ND	0.001	"							
1,2-Dichlorobenzene	ND	0.001	"							
LCS (1WC0836-BS1)				Prepared & Analyzed: 03/26/13						
Surrogate: Dibromofluoromethane	*0.04994*		*mg/kg wet*	*0.0500000*		*99.9*	*88-125*			
Surrogate: 1,2-Dichloroethane-d4	*0.05081*		*"*	*0.0500000*		*102*	*70-125*			
Surrogate: Toluene-d8	*0.04987*		*"*	*0.0500000*		*99.7*	*88-115*			
Surrogate: 4-Bromofluorobenzene	*0.05113*		*"*	*0.0500000*		*102*	*81-121*			
Chloromethane	0.1058	0.001	"	0.100400		105	75-139			
Vinyl Chloride	0.1108	0.001	"	0.100000		111	68-157			
Bromomethane	0.0995	0.001	"	0.100400		99.1	52-145			
Chloroethane	0.1066	0.001	"	0.100400		106	56-148			
1,1-Dichloroethylene	0.0529	0.001	"	0.0500000		106	80-130			
Acetone	0.1072	0.050	"	0.112800		95.1	39-161			
Carbon Disulfide	0.1134	0.005	"	0.114400		99.2	70-127			
Methylene Chloride	0.0509	0.050	"	0.0500000		102	82-121			
trans-1,2-Dichloroethylene	0.0527	0.001	"	0.0500000		105	80-131			
Methyl-t-butyl Ether (MTBE)	0.1257	0.002	"	0.130400		96.4	78-119			
1,1-Dichloroethane	0.0504	0.001	"	0.0500000		101	76-131			
cis-1,2-Dichloroethylene	0.0540	0.001	"	0.0500000		108	80-126			
2-Butanone (MEK)	0.1092	0.005	"	0.115600		94.5	54-128			
Chloroform	0.0536	0.001	"	0.0500000		107	84-123			
1,1,1-Trichloroethane	0.0515	0.001	"	0.0500000		103	86-124			
Carbon Tetrachloride	0.0510	0.001	"	0.0500000		102	86-124			
Benzene	0.0521	0.001	"	0.0500000		104	83-128			
1,2-Dichloroethane	0.0520	0.001	"	0.0500000		104	82-126			
Trichloroethylene	0.0521	0.001	"	0.0500000		104	84-129			
1,2-Dichloropropane	0.0531	0.001	"	0.0500000		106	83-126			
Bromodichloromethane	0.0528	0.001	"	0.0500000		106	87-124			
cis-1,3-Dichloropropene	0.0528	0.001	"	0.0500000		106	80-122			
4-Methyl-2-pentanone (MIBK)	0.1160	0.005	"	0.107200		108	68-133			
Toluene	0.0524	0.001	"	0.0500000		105	86-124			
trans-1,3-Dichloropropene	0.0510	0.001	"	0.0500000		102	81-129			
1,1,2-Trichloroethane	0.0511	0.001	"	0.0500000		102	82-121			
Tetrachloroethylene	0.0525	0.001	"	0.0500000		105	85-125			
2-Hexanone (MBK)	0.1129	0.005	"	0.111200		102	69-124			
Dibromochloromethane	0.0516	0.001	"	0.0500000		103	78-126			
Chlorobenzene	0.0520	0.001	"	0.0500000		104	83-124			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0836 - EPA 5030B										
LCS (1WC0836-BS1)				Prepared & Analyzed: 03/26/13						
Ethylbenzene	0.0520	0.001	mg/kg wet	0.0500000		104	82-125			
Xylenes, total	0.1552	0.002	"	0.150000		103	82-124			
Bromoform	0.0523	0.001	"	0.0500000		105	74-130			
1,1,2,2-Tetrachloroethane	0.0533	0.001	"	0.0500000		107	68-134			
1,3-Dichlorobenzene	0.0498	0.001	"	0.0500000		99.7	76-131			
1,4-Dichlorobenzene	0.0490	0.001	"	0.0500000		98.1	74-128			
1,2-Dichlorobenzene	0.0502	0.001	"	0.0500000		100	78-128			
Matrix Spike (1WC0836-MS1)	**Source: 1C31317-05**			Prepared & Analyzed: 03/26/13						
Surrogate: Dibromofluoromethane	*0.1442*		*mg/kg dry*	*0.121882*		*118*	*88-125*			
Surrogate: 1,2-Dichloroethane-d4	*0.1476*		*"*	*0.121882*		*121*	*70-125*			
Surrogate: Toluene-d8	*0.1204*		*"*	*0.121882*		*98.8*	*88-115*			
Surrogate: 4-Bromofluorobenzene	*0.1276*		*"*	*0.121882*		*105*	*81-121*			
Chloromethane	0.2678	0.002	"	0.244739	ND	109	67-137			
Vinyl Chloride	0.2762	0.002	"	0.243764	ND	113	64-150			
Bromomethane	0.2668	0.002	"	0.244739	ND	109	54-142			
Chloroethane	0.2822	0.002	"	0.244739	ND	115	42-139			
1,1-Dichloroethylene	0.1426	0.002	"	0.121882	ND	117	71-131			
Acetone	0.5785	0.112	"	0.274965	0.0255	201	46-170			QS-02
Carbon Disulfide	0.2878	0.011	"	0.278866	ND	103	69-122			
Methylene Chloride	0.1272	0.112	"	0.121882	ND	104	72-127			
trans-1,2-Dichloroethylene	0.1394	0.002	"	0.121882	ND	114	73-129			
Methyl-t-butyl Ether (MTBE)	0.3343	0.004	"	0.317868	ND	105	75-122			
1,1-Dichloroethane	0.1365	0.002	"	0.121882	ND	112	70-128			
cis-1,2-Dichloroethylene	0.1446	0.002	"	0.121882	ND	119	76-123			
2-Butanone (MEK)	0.4099	0.011	"	0.281791	ND	145	49-156			
Chloroform	0.1442	0.002	"	0.121882	ND	118	75-125			
1,1,1-Trichloroethane	0.1273	0.002	"	0.121882	ND	104	74-129			
Carbon Tetrachloride	0.1262	0.002	"	0.121882	ND	104	71-131			
Benzene	0.1230	0.002	"	0.121882	ND	101	76-131			
1,2-Dichloroethane	0.1384	0.002	"	0.121882	ND	114	70-133			
Trichloroethylene	0.1217	0.002	"	0.121882	ND	99.8	78-132			
1,2-Dichloropropane	0.1324	0.002	"	0.121882	ND	109	75-128			
Bromodichloromethane	0.1346	0.002	"	0.121882	ND	110	77-129			
cis-1,3-Dichloropropene	0.1289	0.002	"	0.121882	ND	106	73-125			
4-Methyl-2-pentanone (MIBK)	0.2904	0.011	"	0.261314	ND	111	65-138			
Toluene	0.1172	0.002	"	0.121882	ND	96.1	73-132			
trans-1,3-Dichloropropene	0.1276	0.002	"	0.121882	ND	105	74-130			
1,1,2-Trichloroethane	0.1249	0.002	"	0.121882	ND	102	74-126			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0836 - EPA 5030B										
Matrix Spike (1WC0836-MS1)	**Source: 1C31317-05**			Prepared & Analyzed: 03/26/13						
Tetrachloroethylene	0.1060	0.002	mg/kg dry	0.121882	ND	87.0	69-135			
2-Hexanone (MBK)	0.4322	0.011	"	0.271065	ND	159	51-172			
Dibromochloromethane	0.1256	0.002	"	0.121882	ND	103	72-124			
Chlorobenzene	0.1186	0.002	"	0.121882	ND	97.3	73-128			
Ethylbenzene	0.1138	0.002	"	0.121882	ND	93.4	69-133			
Xylenes, total	0.3465	0.004	"	0.365645	ND	94.8	69-131			
Bromoform	0.1236	0.002	"	0.121882	ND	101	69-126			
1,1,2,2-Tetrachloroethane	0.1238	0.002	"	0.121882	ND	102	61-134			
1,3-Dichlorobenzene	0.1110	0.002	"	0.121882	ND	91.1	57-139			
1,4-Dichlorobenzene	0.1102	0.002	"	0.121882	ND	90.4	58-136			
1,2-Dichlorobenzene	0.1132	0.002	"	0.121882	ND	92.9	59-137			
Matrix Spike Dup (1WC0836-MSD1)	**Source: 1C31317-05**			Prepared & Analyzed: 03/26/13						
Surrogate: Dibromofluoromethane	*0.1336*		*mg/kg dry*	*0.120803*		*111*	*88-125*			
Surrogate: 1,2-Dichloroethane-d4	*0.1304*		*"*	*0.120803*		*108*	*70-125*			
Surrogate: Toluene-d8	*0.1181*		*"*	*0.120803*		*97.8*	*88-115*			
Surrogate: 4-Bromofluorobenzene	*0.1243*		*"*	*0.120803*		*103*	*81-121*			
Chloromethane	0.2802	0.002	"	0.242573	ND	115	67-137	4.51	26	
Vinyl Chloride	0.2958	0.002	"	0.241606	ND	122	64-150	6.84	25	
Bromomethane	0.2623	0.002	"	0.242573	ND	108	54-142	1.69	25	
Chloroethane	0.2836	0.002	"	0.242573	ND	117	42-139	0.518	30	
1,1-Dichloroethylene	0.1432	0.002	"	0.120803	ND	118	71-131	0.368	23	
Acetone	0.2930	0.111	"	0.272532	0.0255	98.2	46-170	65.5	30	QS-02
Carbon Disulfide	0.2948	0.011	"	0.276398	ND	107	69-122	2.40	26	
Methylene Chloride	0.1173	0.111	"	0.120803	ND	97.1	72-127	8.14	18	
trans-1,2-Dichloroethylene	0.1434	0.002	"	0.120803	ND	119	73-129	2.85	24	
Methyl-t-butyl Ether (MTBE)	0.3321	0.004	"	0.315055	ND	105	75-122	0.649	20	
1,1-Dichloroethane	0.1397	0.002	"	0.120803	ND	116	70-128	2.36	21	
cis-1,2-Dichloroethylene	0.1474	0.002	"	0.120803	ND	122	76-123	1.92	22	
2-Butanone (MEK)	0.2698	0.011	"	0.279297	ND	96.6	49-156	41.2	30	QR-02
Chloroform	0.1444	0.002	"	0.120803	ND	120	75-125	0.137	21	
1,1,1-Trichloroethane	0.1372	0.002	"	0.120803	ND	114	74-129	7.48	24	
Carbon Tetrachloride	0.1353	0.002	"	0.120803	ND	112	71-131	6.94	26	
Benzene	0.1329	0.002	"	0.120803	ND	110	76-131	7.72	22	
1,2-Dichloroethane	0.1364	0.002	"	0.120803	ND	113	70-133	1.45	22	
Trichloroethylene	0.1333	0.002	"	0.120803	ND	110	78-132	9.11	22	
1,2-Dichloropropane	0.1380	0.002	"	0.120803	ND	114	75-128	4.17	20	
Bromodichloromethane	0.1390	0.002	"	0.120803	ND	115	77-129	3.24	20	
cis-1,3-Dichloropropene	0.1374	0.002	"	0.120803	ND	114	73-125	6.42	20	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0836 - EPA 5030B										
Matrix Spike Dup (1WC0836-MSD1)	**Source: 1C31317-05**			Prepared & Analyzed: 03/26/13						
4-Methyl-2-pentanone (MIBK)	0.2733	0.011	mg/kg dry	0.259002	ND	106	65-138	6.07	24	
Toluene	0.1298	0.002	"	0.120803	ND	107	73-132	10.2	22	
trans-1,3-Dichloropropene	0.1355	0.002	"	0.120803	ND	112	74-130	6.01	23	
1,1,2-Trichloroethane	0.1303	0.002	"	0.120803	ND	108	74-126	4.23	21	
Tetrachloroethylene	0.1283	0.002	"	0.120803	ND	106	69-135	19.0	26	
2-Hexanone (MBK)	0.2583	0.011	"	0.268666	ND	96.1	51-172	50.4	30	QR-02
Dibromochloromethane	0.1306	0.002	"	0.120803	ND	108	72-124	3.90	20	
Chlorobenzene	0.1288	0.002	"	0.120803	ND	107	73-128	8.27	20	
Ethylbenzene	0.1298	0.002	"	0.120803	ND	107	69-133	13.1	22	
Xylenes, total	0.3961	0.004	"	0.362410	ND	109	69-131	13.4	22	
Bromoform	0.1293	0.002	"	0.120803	ND	107	69-126	4.50	23	
1,1,2,2-Tetrachloroethane	0.1282	0.002	"	0.120803	ND	106	61-134	3.50	29	
1,3-Dichlorobenzene	0.1348	0.002	"	0.120803	ND	112	57-139	19.4	20	
1,4-Dichlorobenzene	0.1308	0.002	"	0.120803	ND	108	58-136	17.1	29	
1,2-Dichlorobenzene	0.1319	0.002	"	0.120803	ND	109	59-137	15.3	25	
Batch 1WC0908 - EPA 5030B										
Blank (1WC0908-BLK1)				Prepared & Analyzed: 03/27/13						
Surrogate: Dibromofluoromethane	*55.1*		*ug/L*	*50.0000*		*110*	*80-124*			
Surrogate: 1,2-Dichloroethane-d4	*57.7*		*"*	*50.0000*		*115*	*78-121*			
Surrogate: Toluene-d8	*49.6*		*"*	*50.0000*		*99.2*	*89-115*			
Surrogate: 4-Bromofluorobenzene	*46.3*		*"*	*50.0000*		*92.6*	*75-128*			
Chloromethane	ND	1.0	"							
Vinyl Chloride	ND	1.0	"							
Bromomethane	ND	1.0	"							
Chloroethane	ND	1.0	"							
1,1-Dichloroethylene	ND	1.0	"							
Acetone	ND	10.0	"							
Carbon Disulfide	ND	1.0	"							
Methylene Chloride	ND	5.0	"							
trans-1,2-Dichloroethylene	ND	1.0	"							
Methyl-t-butyl Ether (MTBE)	ND	2.0	"							
1,1-Dichloroethane	ND	1.0	"							
cis-1,2-Dichloroethylene	ND	1.0	"							
2-Butanone (MEK)	ND	5.0	"							
Chloroform	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Carbon Tetrachloride	ND	1.0	"							

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Work Order: 1C31317

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0908 - EPA 5030B										
Blank (1WC0908-BLK1)				Prepared & Analyzed: 03/27/13						
Benzene	ND	1.0	ug/L							
1,2-Dichloroethane	ND	1.0	"							
Trichloroethylene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
4-Methyl-2-pentanone (MIBK)	ND	5.0	"							
Toluene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
Tetrachloroethylene	ND	1.0	"							
2-Hexanone (MBK)	ND	5.0	"							
Dibromochloromethane	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	2.0	"							
Bromoform	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
LCS (1WC0908-BS1)				Prepared & Analyzed: 03/27/13						
Surrogate: Dibromofluoromethane	*52.7*		*ug/L*	*50.0000*		*105*	*80-124*			
Surrogate: 1,2-Dichloroethane-d4	*50.9*		*"*	*50.0000*		*102*	*78-121*			
Surrogate: Toluene-d8	*49.7*		*"*	*50.0000*		*99.3*	*89-115*			
Surrogate: 4-Bromofluorobenzene	*52.0*		*"*	*50.0000*		*104*	*75-128*			
Chloromethane	115.8	1.0	"	100.400		115	74-146			
Vinyl Chloride	121.1	1.0	"	100.000		121	89-147			
Bromomethane	111.7	1.0	"	100.400		111	46-173			
Chloroethane	102.4	1.0	"	100.400		102	84-129			
1,1-Dichloroethylene	52.70	1.0	"	50.0000		105	85-129			
Acetone	131.6	10.0	"	112.800		117	52-150			
Carbon Disulfide	106.7	1.0	"	114.400		93.3	83-124			
Methylene Chloride	48.29	5.0	"	50.0000		96.6	82-121			
trans-1,2-Dichloroethylene	50.96	1.0	"	50.0000		102	86-126			
Methyl-t-butyl Ether (MTBE)	121.0	2.0	"	130.400		92.8	72-122			
1,1-Dichloroethane	47.10	1.0	"	50.0000		94.2	82-127			
cis-1,2-Dichloroethylene	47.27	1.0	"	50.0000		94.5	82-124			

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3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0908 - EPA 5030B										
LCS (1WC0908-BS1)				Prepared & Analyzed: 03/27/13						
2-Butanone (MEK)	100.7	5.0	ug/L	115.600		87.1	56-127			
Chloroform	50.91	1.0	"	50.0000		102	87-121			
1,1,1-Trichloroethane	55.73	1.0	"	50.0000		111	89-124			
Carbon Tetrachloride	55.56	1.0	"	50.0000		111	89-126			
Benzene	46.91	1.0	"	50.0000		93.8	83-123			
1,2-Dichloroethane	52.43	1.0	"	50.0000		105	83-121			
Trichloroethylene	49.69	1.0	"	50.0000		99.4	90-123			
1,2-Dichloropropane	47.32	1.0	"	50.0000		94.6	85-124			
Bromodichloromethane	51.28	1.0	"	50.0000		103	89-121			
cis-1,3-Dichloropropene	48.22	1.0	"	50.0000		96.4	78-122			
4-Methyl-2-pentanone (MIBK)	105.3	5.0	"	107.200		98.2	70-127			
Toluene	47.19	1.0	"	50.0000		94.4	84-121			
trans-1,3-Dichloropropene	49.62	1.0	"	50.0000		99.2	81-124			
1,1,2-Trichloroethane	47.86	1.0	"	50.0000		95.7	83-116			
Tetrachloroethylene	50.32	1.0	"	50.0000		101	88-122			
2-Hexanone (MBK)	108.3	5.0	"	111.200		97.4	66-129			
Dibromochloromethane	50.54	1.0	"	50.0000		101	84-115			
Chlorobenzene	48.64	1.0	"	50.0000		97.3	84-120			
Ethylbenzene	48.67	1.0	"	50.0000		97.3	78-123			
Xylenes, total	150.6	2.0	"	150.000		100	78-122			
Bromoform	51.05	1.0	"	50.0000		102	82-117			
1,1,2,2-Tetrachloroethane	45.50	1.0	"	50.0000		91.0	75-125			
1,3-Dichlorobenzene	49.42	1.0	"	50.0000		98.8	80.5-127			
1,4-Dichlorobenzene	50.80	1.0	"	50.0000		102	79-121			
1,2-Dichlorobenzene	54.24	1.0	"	50.0000		108	82-122			
Matrix Spike (1WC0908-MS1)		**Source: 1C31317-08**		Prepared & Analyzed: 03/27/13						
Surrogate: Dibromofluoromethane	*52.0*		*ug/L*	*50.0000*		*104*	*80-124*			
Surrogate: 1,2-Dichloroethane-d4	*56.5*		*"*	*50.0000*		*113*	*78-121*			
Surrogate: Toluene-d8	*50.1*		*"*	*50.0000*		*100*	*89-115*			
Surrogate: 4-Bromofluorobenzene	*50.1*		*"*	*50.0000*		*100*	*75-128*			
Chloromethane	1075	10.0	"	1004.00	ND	107	72-145			
Vinyl Chloride	1131	10.0	"	1000.00	ND	113	83-151			
Bromomethane	1062	10.0	"	1004.00	ND	106	46-165			
Chloroethane	990.1	10.0	"	1004.00	ND	98.6	79-132			
1,1-Dichloroethylene	504.4	10.0	"	500.000	ND	101	85-125			
Acetone	1064	100	"	1128.00	ND	94.3	52-137			
Carbon Disulfide	1037	10.0	"	1144.00	ND	90.6	82-121			
Methylene Chloride	475.9	50.0	"	500.000	ND	95.2	83-121			

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3660 109th Street
Urbandale, IA 50322

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0908 - EPA 5030B										
Matrix Spike (1WC0908-MS1)	**Source: 1C31317-08**			Prepared & Analyzed: 03/27/13						
trans-1,2-Dichloroethylene	492.8	10.0	ug/L	500.000	ND	98.6	85-124			
Methyl-t-butyl Ether (MTBE)	1199	20.0	"	1304.00	ND	92.0	76-121			
1,1-Dichloroethane	468.3	10.0	"	500.000	ND	93.7	83-124			
cis-1,2-Dichloroethylene	455.6	10.0	"	500.000	ND	91.1	84-121			
2-Butanone (MEK)	1026	50.0	"	1156.00	ND	88.7	54-124			
Chloroform	494.1	10.0	"	500.000	ND	98.8	87-119			
1,1,1-Trichloroethane	537.9	10.0	"	500.000	ND	108	88-122			
Carbon Tetrachloride	540.0	10.0	"	500.000	ND	108	90-121			
Benzene	470.6	10.0	"	500.000	ND	94.1	82-125			
1,2-Dichloroethane	494.2	10.0	"	500.000	ND	98.8	83-123			
Trichloroethylene	490.4	10.0	"	500.000	ND	98.1	87-122			
1,2-Dichloropropane	457.8	10.0	"	500.000	ND	91.6	84-124			
Bromodichloromethane	500.3	10.0	"	500.000	ND	100	89-123			
cis-1,3-Dichloropropene	477.2	10.0	"	500.000	ND	95.4	82-122			
4-Methyl-2-pentanone (MIBK)	1077	50.0	"	1072.00	ND	100	70-131			
Toluene	469.1	10.0	"	500.000	ND	93.8	84-121			
trans-1,3-Dichloropropene	485.5	10.0	"	500.000	ND	97.1	83-123			
1,1,2-Trichloroethane	475.2	10.0	"	500.000	ND	95.0	83-118			
Tetrachloroethylene	492.1	10.0	"	500.000	ND	98.4	85-123			
2-Hexanone (MBK)	1050	50.0	"	1112.00	ND	94.4	67-128			
Dibromochloromethane	489.2	10.0	"	500.000	ND	97.8	86-118			
Chlorobenzene	482.0	10.0	"	500.000	ND	96.4	86-118			
Ethylbenzene	469.6	10.0	"	500.000	ND	93.9	76-123			
Xylenes, total	1452	20.0	"	1500.00	ND	96.8	80-120			
Bromoform	486.5	10.0	"	500.000	ND	97.3	83-120			
1,1,2,2-Tetrachloroethane	465.2	10.0	"	500.000	ND	93.0	77-128			
1,3-Dichlorobenzene	473.8	10.0	"	500.000	ND	94.8	84-123			
1,4-Dichlorobenzene	480.7	10.0	"	500.000	ND	96.1	82-119			
1,2-Dichlorobenzene	518.6	10.0	"	500.000	ND	104	83-122			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0908 - EPA 5030B										
Matrix Spike Dup (1WC0908-MSD1)	**Source: 1C31317-08**			Prepared & Analyzed: 03/27/13						
Surrogate: Dibromofluoromethane	*50.2*		*ug/L*	*50.0000*		*100*	*80-124*			
Surrogate: 1,2-Dichloroethane-d4	*56.2*		*"*	*50.0000*		*112*	*78-121*			
Surrogate: Toluene-d8	*50.6*		*"*	*50.0000*		*101*	*89-115*			
Surrogate: 4-Bromofluorobenzene	*51.8*		*"*	*50.0000*		*104*	*75-128*			
Chloromethane	1056	10.0	"	1004.00	ND	105	72-145	1.80	10	
Vinyl Chloride	1106	10.0	"	1000.00	ND	111	83-151	2.23	10	
Bromomethane	1071	10.0	"	1004.00	ND	107	46-165	0.844	10	
Chloroethane	1001	10.0	"	1004.00	ND	99.7	79-132	1.06	11	
1,1-Dichloroethylene	502.1	10.0	"	500.000	ND	100	85-125	0.457	10	
Acetone	1123	100	"	1128.00	ND	99.6	52-137	5.38	13	
Carbon Disulfide	1034	10.0	"	1144.00	ND	90.3	82-121	0.300	10	
Methylene Chloride	478.5	50.0	"	500.000	ND	95.7	83-121	0.545	10	
trans-1,2-Dichloroethylene	495.1	10.0	"	500.000	ND	99.0	85-124	0.466	10	
Methyl-t-butyl Ether (MTBE)	1226	20.0	"	1304.00	ND	94.0	76-121	2.23	10	
1,1-Dichloroethane	464.4	10.0	"	500.000	ND	92.9	83-124	0.836	10	
cis-1,2-Dichloroethylene	464.9	10.0	"	500.000	ND	93.0	84-121	2.02	10	
2-Butanone (MEK)	1057	50.0	"	1156.00	ND	91.4	54-124	3.00	13	
Chloroform	502.3	10.0	"	500.000	ND	100	87-119	1.65	10	
1,1,1-Trichloroethane	541.5	10.0	"	500.000	ND	108	88-122	0.667	10	
Carbon Tetrachloride	536.9	10.0	"	500.000	ND	107	90-121	0.576	11	
Benzene	489.6	10.0	"	500.000	ND	97.9	82-125	3.96	11	
1,2-Dichloroethane	517.9	10.0	"	500.000	ND	104	83-123	4.68	10	
Trichloroethylene	510.9	10.0	"	500.000	ND	102	87-122	4.09	10	
1,2-Dichloropropane	498.0	10.0	"	500.000	ND	99.6	84-124	8.41	10	
Bromodichloromethane	516.2	10.0	"	500.000	ND	103	89-123	3.13	10	
cis-1,3-Dichloropropene	499.1	10.0	"	500.000	ND	99.8	82-122	4.49	10	
4-Methyl-2-pentanone (MIBK)	1140	50.0	"	1072.00	ND	106	70-131	5.71	10	
Toluene	489.9	10.0	"	500.000	ND	98.0	84-121	4.34	11	
trans-1,3-Dichloropropene	513.9	10.0	"	500.000	ND	103	83-123	5.68	10	
1,1,2-Trichloroethane	503.0	10.0	"	500.000	ND	101	83-118	5.68	10	
Tetrachloroethylene	523.9	10.0	"	500.000	ND	105	85-123	6.26	10	
2-Hexanone (MBK)	1133	50.0	"	1112.00	ND	102	67-128	7.55	11	
Dibromochloromethane	517.9	10.0	"	500.000	ND	104	86-118	5.70	10	
Chlorobenzene	509.3	10.0	"	500.000	ND	102	86-118	5.51	10	
Ethylbenzene	502.6	10.0	"	500.000	ND	101	76-123	6.79	10	
Xylenes, total	1520	20.0	"	1500.00	ND	101	80-120	4.63	10	
Bromoform	531.9	10.0	"	500.000	ND	106	83-120	8.92	10	
1,1,2,2-Tetrachloroethane	474.5	10.0	"	500.000	ND	94.9	77-128	1.98	11	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0908 - EPA 5030B										
Matrix Spike Dup (1WC0908-MSD1)	**Source: 1C31317-08**			Prepared & Analyzed: 03/27/13						
1,3-Dichlorobenzene	501.7	10.0	ug/L	500.000	ND	100	84-123	5.72	11	
1,4-Dichlorobenzene	521.5	10.0	"	500.000	ND	104	82-119	8.14	10	
1,2-Dichlorobenzene	529.0	10.0	"	500.000	ND	106	83-122	1.99	11	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Extractable Petroleum Hydrocarbons - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0770 - 3545 OA-2 PFE										
Blank (1WC0770-BLK1)				Prepared: 03/25/13 Analyzed: 03/27/13						
Surrogate: Pentacosane	*2.96*		*mg/kg*	*2.49000*		*119*	*42-129*			
TEH, as gasoline	ND	5	"							
TEH, as #2 diesel fuel	ND	5	"							
TEH, as waste oil	ND	5	"							
Total Extractable Hydrocarbons	ND	5	"							
LCS (1WC0770-BS1)				Prepared: 03/25/13 Analyzed: 03/28/13						
Surrogate: Pentacosane	*2.94*		*mg/kg*	*2.49000*		*118*	*42-129*			
TEH, as #2 diesel fuel	246.0	5	"	375.550		65.5	48-125			
Matrix Spike (1WC0770-MS1)	**Source: 1C31231-01**			Prepared: 03/25/13 Analyzed: 03/28/13						
Surrogate: Pentacosane	*2.77*		*mg/kg*	*2.48379*		*112*	*42-129*			
TEH, as #2 diesel fuel	193.8	5	"	374.614	ND	51.7	34-110			
Matrix Spike Dup (1WC0770-MSD1)	**Source: 1C31231-01**			Prepared: 03/25/13 Analyzed: 03/28/13						
Surrogate: Pentacosane	*2.96*		*mg/kg*	*2.48503*		*119*	*42-129*			
TEH, as #2 diesel fuel	218.5	5	"	374.800	ND	58.3	34-110	12.0	30	
Reference (1WC0770-SRM1)				Prepared: 03/25/13 Analyzed: 03/28/13						
Surrogate: Pentacosane	*2.88*		*mg/kg*	*2.49000*		*116*	*42-129*			
TEH, as #2 diesel fuel	348.1	5	"	375.550		92.7	70-130			
Batch 1WC0840 - 3510C OA-2 Sep Fnl										
Blank (1WC0840-BLK1)				Prepared: 03/27/13 Analyzed: 03/29/13						
Surrogate: Pentacosane	*0.0573*		*mg/L*	*0.0498000*		*115*	*50-153*			
TEH, as gasoline	ND	0.1	"							
TEH, as #2 diesel fuel	ND	0.1	"							
TEH, as waste oil	ND	0.1	"							
Total Extractable Hydrocarbons	ND	0.1	"							

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Extractable Petroleum Hydrocarbons - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0840 - 3510C OA-2 Sep Fnl										
LCS (1WC0840-BS1)				Prepared: 03/27/13 Analyzed: 03/29/13						
Surrogate: Pentacosane	*0.0604*		*mg/L*	*0.0498000*		*121*	*50-153*			
TEH, as #2 diesel fuel	6.71	0.1	"	7.51100		89.4	44-125			
LCS Dup (1WC0840-BSD1)				Prepared: 03/27/13 Analyzed: 03/29/13						
Surrogate: Pentacosane	*0.0622*		*mg/L*	*0.0498000*		*125*	*50-153*			
TEH, as #2 diesel fuel	6.53	0.1	"	7.51100		86.9	44-125	2.78	30	
Reference (1WC0840-SRM1)				Prepared: 03/27/13 Analyzed: 03/29/13						
Surrogate: Pentacosane	*0.0575*		*mg/L*	*0.0498000*		*116*	*50-153*			
TEH, as #2 diesel fuel	7.00	0.1	"	7.51100		93.2	70-130			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
Blank (1WC0817-BLK1)				Prepared: 03/26/13 Analyzed: 04/03/13						
Surrogate: 2-Fluorophenol	*55.9*		*ug/L*	*72.4000*		*77.2*	*21-96*			
Surrogate: Phenol-d6	*60.3*		*"*	*72.2000*		*83.5*	*21-109*			
Surrogate: Nitrobenzene-d5	*60.1*		*"*	*71.9600*		*83.6*	*20-120*			
Surrogate: 2-Fluorobiphenyl	*59.9*		*"*	*72.8800*		*82.1*	*20-110*			
Surrogate: 2,4,6-Tribromophenol	*61.8*		*"*	*72.2000*		*85.6*	*41-159*			
Surrogate: Terphenyl-dl4	*68.2*		*"*	*72.0000*		*94.7*	*35-144*			
N-Nitrosodimethylamine	ND	10	"							
Phenol	ND	10	"							
Aniline	ND	10	"							
Bis(2-Chloroethyl) Ether	ND	10	"							
2-Chlorophenol	ND	10	"							
1,3-Dichlorobenzene	ND	10	"							
1,4-Dichlorobenzene	ND	10	"							
Benzyl Alcohol	ND	10	"							
1,2-Dichlorobenzene	ND	10	"							
2-Methylphenol (o-Cresol)	ND	10	"							
Bis[2-Chloroisopropyl]ether	ND	10	"							
n-Nitroso-di-n-propylamine	ND	10	"							
(3 & 4)-Methylphenol	ND	10	"							
Hexachloroethane	ND	10	"							
Nitrobenzene	ND	10	"							
Isophorone	ND	10	"							
2-Nitrophenol	ND	10	"							
2,4-Dimethylphenol	ND	10	"							
Bis (2-Chloroethoxy) Methane	ND	10	"							
2,4-Dichlorophenol	ND	10	"							
1,2,4-Trichlorobenzene	ND	10	"							
Naphthalene	ND	10	"							
4-Chloroaniline	ND	10	"							
Hexachlorobutadiene	ND	20	"							
4-Chloro-3-methylphenol	ND	10	"							
2-Methylnaphthalene	ND	10	"							
Hexachlorocyclopentadiene	ND	20	"							
2,4,6-Trichlorophenol	ND	10	"							
2,4,5-Trichlorophenol	ND	50	"							
2-Chloronaphthalene	ND	10	"							
2-Nitroaniline	ND	50	"							
Dimethylphthalate	ND	15	"							

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
Blank (1WC0817-BLK1)				Prepared: 03/26/13 Analyzed: 04/03/13						
Acenaphthylene	ND	10	ug/L							
2,6-Dinitrotoluene	ND	10	"							
3-Nitroaniline	ND	10	"							
Acenaphthene	ND	10	"							
2,4-Dinitrophenol	ND	20	"							
Dibenzofuran	ND	10	"							
2,4-Dinitrotoluene	ND	10	"							
4-Nitrophenol	ND	10	"							
Diethyl Phthalate	ND	30	"							
Fluorene	ND	10	"							
4-Chlorophenyl Phenyl Ether	ND	10	"							
4-Nitroaniline	ND	20	"							
4,6-Dinitro-2-methylphenol	ND	20	"							
N-Nitrosodiphenylamine	ND	10	"							
Azobenzene	ND	10	"							
4-Bromophenyl Phenyl Ether	ND	10	"							
Hexachlorobenzene	ND	10	"							
Pentachlorophenol	ND	20	"							
Phenanthrene	ND	10	"							
Anthracene	ND	10	"							
Di-n-butyl Phthalate	ND	10	"							
Fluoranthene	ND	10	"							
Benzidine	ND	50	"							
Pyrene	ND	10	"							
Butyl Benzyl Phthalate	ND	10	"							
Benzo(a)anthracene	ND	10	"							
Chrysene	ND	10	"							
Bis(2-Ethylhexyl) Phthalate	ND	10	"							
Di-n-octyl Phthalate	ND	10	"							
Indeno(1,2,3-cd)Pyrene	ND	10	"							
3,3´-Dichlorobenzidine	ND	20	"							
Benzo(b)Fluoranthene	ND	10	"							
Benzo(k)Fluoranthene	ND	10	"							
Benzo(a)Pyrene	ND	10	"							
Dibenzo(a,h)anthracene	ND	10	"							
Benzo(g,h,i)perylene	ND	10	"							

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
LCS (1WC0817-BS1)				Prepared: 03/26/13 Analyzed: 04/03/13						
Surrogate: 2-Fluorophenol	*57.8*		*ug/L*	*72.4000*		*79.9*	*21-96*			
Surrogate: Phenol-d6	*52.1*		*"*	*72.2000*		*72.2*	*21-109*			
Surrogate: Nitrobenzene-d5	*54.0*		*"*	*71.9600*		*75.1*	*20-120*			
Surrogate: 2-Fluorobiphenyl	*61.4*		*"*	*72.8800*		*84.3*	*20-110*			
Surrogate: 2,4,6-Tribromophenol	*61.7*		*"*	*72.2000*		*85.4*	*41-159*			
Surrogate: Terphenyl-dl4	*60.9*		*"*	*72.0000*		*84.6*	*35-144*			
N-Nitrosodimethylamine	40.9	10	"	44.8000		91.3	25-127			
Phenol	33.9	10	"	44.8000		75.6	28-104			
Bis(2-Chloroethyl) Ether	38.3	10	"	44.8000		85.5	28-101			
2-Chlorophenol	32.4	10	"	44.8000		72.2	28-97.5			
1,3-Dichlorobenzene	33.0	10	"	44.8000		73.7	10-103			
1,4-Dichlorobenzene	33.9	10	"	44.8000		75.6	28-92			
Benzyl Alcohol	35.0	10	"	44.8000		78.0	28-104			
1,2-Dichlorobenzene	33.3	10	"	44.8000		74.4	24-100			
2-Methylphenol (o-Cresol)	32.5	10	"	44.8000		72.6	27-109			
Bis[2-Chloroisopropyl]ether	36.2	10	"	44.8000		80.9	24-102			
n-Nitroso-di-n-propylamine	35.6	10	"	44.8000		79.4	30-111			
(3 & 4)-Methylphenol	34.3	10	"	44.8000		76.5	10-137			
Hexachloroethane	34.0	10	"	44.8000		76.0	18-102			
Nitrobenzene	37.6	10	"	44.8000		84.0	25-105			
Isophorone	35.2	10	"	44.8000		78.6	34-110			
2-Nitrophenol	34.2	10	"	44.8000		76.2	29-117			
2,4-Dimethylphenol	14.8	10	"	44.8000		33.1	10-123			
Bis (2-Chloroethoxy) Methane	29.0	10	"	44.8000		64.8	31-112			
2,4-Dichlorophenol	33.4	10	"	44.8000		74.7	36-125			
1,2,4-Trichlorobenzene	31.1	10	"	44.8000		69.4	21-114			
Naphthalene	38.7	10	"	44.8000		86.5	21-122			
4-Chloroaniline	26.6	10	"	44.9400		59.2	10-89.5			
Hexachlorobutadiene	36.5	20	"	44.8000		81.4	24-133			
4-Chloro-3-methylphenol	38.1	10	"	44.8000		85.1	50-139			
2-Methylnaphthalene	34.0	10	"	44.8000		75.9	31-116			
Hexachlorocyclopentadiene	18.4	20	"	44.8000		41.1	11-79			
2,4,6-Trichlorophenol	40.0	10	"	44.8000		89.2	32-127			
2,4,5-Trichlorophenol	43.0	50	"	44.8000		96.0	44-129			
2-Chloronaphthalene	38.7	10	"	44.8000		86.4	14-144			
2-Nitroaniline	41.5	50	"	44.9540		92.3	37-119			
Dimethylphthalate	42.6	15	"	44.8000		95.1	38-141			
Acenaphthylene	34.8	10	"	44.8000		77.7	29-126			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: **1C31317**

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
LCS (1WC0817-BS1)				Prepared: 03/26/13 Analyzed: 04/03/13						
2,6-Dinitrotoluene	41.8	10	ug/L	44.8000		93.2	41-134			
3-Nitroaniline	38.9	10	"	44.8000		86.8	22-146			
Acenaphthene	38.8	10	"	44.8000		86.7	30-137			
2,4-Dinitrophenol	43.0	20	"	44.8000		95.9	49-143			
Dibenzofuran	40.0	10	"	44.8000		89.2	42-117			
2,4-Dinitrotoluene	35.4	10	"	44.8000		79.0	40-135			
4-Nitrophenol	50.2	10	"	44.8000		112	44-151			
Diethyl Phthalate	45.0	30	"	44.8000		101	49-138			
Fluorene	37.2	10	"	44.8000		83.1	39-135			
4-Chlorophenyl Phenyl Ether	38.6	10	"	44.2400		87.3	41-145			
4-Nitroaniline	35.7	20	"	44.8840		79.5	27-140			
4,6-Dinitro-2-methylphenol	41.0	20	"	44.8000		91.6	47-138			
N-Nitrosodiphenylamine	34.4	10	"	44.8000		76.7	30-139			
Azobenzene	41.2	10	"	44.9400		91.6	36-131			
4-Bromophenyl Phenyl Ether	42.1	10	"	44.8000		93.9	23-141			
Hexachlorobenzene	42.0	10	"	44.8000		93.8	29-135			
Pentachlorophenol	47.4	20	"	44.8000		106	47-148			
Phenanthrene	42.6	10	"	44.8000		95.1	44-137			
Anthracene	42.9	10	"	44.8000		95.8	41-136			
Di-n-butyl Phthalate	44.9	10	"	44.8000		100	53-134			
Fluoranthene	44.3	10	"	44.8000		99.0	50-128			
Pyrene	35.4	10	"	44.8000		78.9	47-126			
Butyl Benzyl Phthalate	43.1	10	"	44.8000		96.2	49-131			
Benzo(a)anthracene	39.7	10	"	44.8000		88.5	60-122			
Chrysene	40.3	10	"	44.8000		90.0	52-122			
Bis(2-Ethylhexyl) Phthalate	40.5	10	"	44.8000		90.3	53-150			
Di-n-octyl Phthalate	42.0	10	"	44.8000		93.7	40-169			
Indeno(1,2,3-cd)Pyrene	48.7	10	"	44.8000		109	39-144			
Benzo(b)Fluoranthene	43.9	10	"	44.8000		97.9	42-165			
Benzo(k)Fluoranthene	40.4	10	"	44.8000		90.2	38-171			
Benzo(a)Pyrene	40.8	10	"	44.8000		91.1	44-144			
Dibenzo(a,h)anthracene	48.0	10	"	44.8000		107	37-151			
Benzo(g,h,i)perylene	48.2	10	"	44.8000		107	27-147			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
LCS Dup (1WC0817-BSD1)				Prepared: 03/26/13 Analyzed: 04/03/13						
Surrogate: 2-Fluorophenol	*57.3*		*ug/L*	*72.4000*		*79.1*	*21-96*			
Surrogate: Phenol-d6	*55.8*		*"*	*72.2000*		*77.3*	*21-109*			
Surrogate: Nitrobenzene-d5	*53.2*		*"*	*71.9600*		*74.0*	*20-120*			
Surrogate: 2-Fluorobiphenyl	*60.4*		*"*	*72.8800*		*82.9*	*20-110*			
Surrogate: 2,4,6-Tribromophenol	*64.7*		*"*	*72.2000*		*89.6*	*41-159*			
Surrogate: Terphenyl-dl4	*60.1*		*"*	*72.0000*		*83.5*	*35-144*			
N-Nitrosodimethylamine	37.5	10	"	44.8000		83.6	25-127	8.75	30	
Phenol	35.4	10	"	44.8000		79.0	28-104	4.36	29	
Bis(2-Chloroethyl) Ether	38.7	10	"	44.8000		86.4	28-101	1.01	30	
2-Chlorophenol	34.1	10	"	44.8000		76.0	28-97.5	5.15	29	
1,3-Dichlorobenzene	34.6	10	"	44.8000		77.1	10-103	4.59	30	
1,4-Dichlorobenzene	37.8	10	"	44.8000		84.5	28-92	11.1	30	
Benzyl Alcohol	37.6	10	"	44.8000		84.0	28-104	7.36	30	
1,2-Dichlorobenzene	35.2	10	"	44.8000		78.5	24-100	5.40	30	
2-Methylphenol (o-Cresol)	33.0	10	"	44.8000		73.7	27-109	1.47	30	
Bis[2-Chloroisopropyl]ether	35.4	10	"	44.8000		79.1	24-102	2.23	30	
n-Nitroso-di-n-propylamine	37.8	10	"	44.8000		84.4	30-111	6.05	30	
(3 & 4)-Methylphenol	33.9	10	"	44.8000		75.7	10-137	1.14	30	
Hexachloroethane	34.9	10	"	44.8000		77.8	18-102	2.44	30	
Nitrobenzene	38.7	10	"	44.8000		86.5	25-105	2.85	30	
Isophorone	38.0	10	"	44.8000		84.7	34-110	7.52	30	
2-Nitrophenol	33.8	10	"	44.8000		75.4	29-117	1.15	30	
2,4-Dimethylphenol	15.4	10	"	44.8000		34.3	10-123	3.71	30	
Bis (2-Chloroethoxy) Methane	36.5	10	"	44.8000		81.6	31-112	22.9	30	
2,4-Dichlorophenol	36.2	10	"	44.8000		80.8	36-125	7.92	30	
1,2,4-Trichlorobenzene	35.8	10	"	44.8000		79.8	21-114	14.0	30	
Naphthalene	41.2	10	"	44.8000		91.9	21-122	6.11	30	
4-Chloroaniline	31.7	10	"	44.9400		70.5	10-89.5	17.4	30	
Hexachlorobutadiene	33.3	20	"	44.8000		74.3	24-133	9.12	30	
4-Chloro-3-methylphenol	39.0	10	"	44.8000		86.9	50-139	2.18	30	
2-Methylnaphthalene	36.0	10	"	44.8000		80.4	31-116	5.71	30	
Hexachlorocyclopentadiene	17.9	20	"	44.8000		39.9	11-79	2.87	30	
2,4,6-Trichlorophenol	40.7	10	"	44.8000		90.8	32-127	1.79	30	
2,4,5-Trichlorophenol	40.8	50	"	44.8000		91.1	44-129	5.18	30	
2-Chloronaphthalene	34.4	10	"	44.8000		76.8	14-144	11.7	30	
2-Nitroaniline	41.3	50	"	44.9540		91.8	37-119	0.604	30	
Dimethylphthalate	40.6	15	"	44.8000		90.6	38-141	4.88	30	
Acenaphthylene	36.0	10	"	44.8000		80.3	29-126	3.30	30	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: **1C31317**

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
LCS Dup (1WC0817-BSD1)				Prepared: 03/26/13 Analyzed: 04/03/13						
2,6-Dinitrotoluene	39.6	10	ug/L	44.8000		88.4	41-134	5.28	30	
3-Nitroaniline	39.9	10	"	44.8000		89.0	22-146	2.46	30	
Acenaphthene	37.2	10	"	44.8000		83.1	30-137	4.23	30	
2,4-Dinitrophenol	42.3	20	"	44.8000		94.3	49-143	1.64	30	
Dibenzofuran	40.4	10	"	44.8000		90.2	42-117	1.02	30	
2,4-Dinitrotoluene	39.2	10	"	44.8000		87.4	40-135	10.2	30	
4-Nitrophenol	46.3	10	"	44.8000		103	44-151	8.10	30	
Diethyl Phthalate	45.3	30	"	44.8000		101	49-138	0.642	30	
Fluorene	41.2	10	"	44.8000		92.0	39-135	10.2	30	
4-Chlorophenyl Phenyl Ether	42.7	10	"	44.2400		96.4	41-145	9.89	30	
4-Nitroaniline	37.6	20	"	44.8840		83.7	27-140	5.13	30	
4,6-Dinitro-2-methylphenol	40.6	20	"	44.8000		90.7	47-138	0.979	30	
N-Nitrosodiphenylamine	35.6	10	"	44.8000		79.4	30-139	3.38	30	
Azobenzene	43.7	10	"	44.9400		97.2	36-131	5.87	30	
4-Bromophenyl Phenyl Ether	44.2	10	"	44.8000		98.7	23-141	4.94	30	
Hexachlorobenzene	42.6	10	"	44.8000		95.2	29-135	1.44	30	
Pentachlorophenol	49.1	20	"	44.8000		110	47-148	3.50	30	
Phenanthrene	48.1	10	"	44.8000		107	44-137	12.2	30	
Anthracene	43.6	10	"	44.8000		97.2	41-136	1.53	30	
Di-n-butyl Phthalate	44.7	10	"	44.8000		99.9	53-134	0.357	30	
Fluoranthene	44.2	10	"	44.8000		98.7	50-128	0.316	30	
Pyrene	38.3	10	"	44.8000		85.4	47-126	7.90	30	
Butyl Benzyl Phthalate	36.1	10	"	44.8000		80.6	49-131	17.7	30	
Benzo(a)anthracene	40.8	10	"	44.8000		91.2	60-122	2.96	30	
Chrysene	36.9	10	"	44.8000		82.4	52-122	8.81	30	
Bis(2-Ethylhexyl) Phthalate	48.2	10	"	44.8000		108	53-150	17.4	30	
Di-n-octyl Phthalate	41.7	10	"	44.8000		93.1	40-169	0.693	30	
Indeno(1,2,3-cd)Pyrene	52.9	10	"	44.8000		118	39-144	8.21	30	
Benzo(b)Fluoranthene	48.1	10	"	44.8000		107	42-165	9.20	30	
Benzo(k)Fluoranthene	43.3	10	"	44.8000		96.7	38-171	7.02	30	
Benzo(a)Pyrene	44.8	10	"	44.8000		100	44-144	9.41	30	
Dibenzo(a,h)anthracene	49.3	10	"	44.8000		110	37-151	2.59	30	
Benzo(g,h,i)perylene	48.2	10	"	44.8000		108	27-147	0.125	30	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
Reference (1WC0817-SRM1)				Prepared: 03/26/13 Analyzed: 04/03/13						
Surrogate: 2-Fluorophenol	*66.1*		*ug/L*	*72.4000*		*91.4*	*21-96*			
Surrogate: Phenol-d6	*66.3*		*"*	*72.2000*		*91.8*	*21-109*			
Surrogate: 2,4,6-Tribromophenol	*66.5*		*"*	*72.2000*		*92.2*	*41-159*			
N-Nitrosodimethylamine	44.1	10	"	44.8000		98.5	70-130			
Phenol	40.3	10	"	44.8000		90.0	70-130			
Bis(2-Chloroethyl) Ether	43.2	10	"	44.8000		96.5	70-130			
2-Chlorophenol	41.2	10	"	44.8000		91.9	70-130			
2-Methylphenol (o-Cresol)	36.4	10	"	44.8000		81.3	70-130			
Bis[2-Chloroisopropyl]ether	36.8	10	"	44.8000		82.1	70-130			
n-Nitroso-di-n-propylamine	41.5	10	"	44.8000		92.7	70-130			
(3 & 4)-Methylphenol	37.2	10	"	44.8000		83.0	70-130			
2-Nitrophenol	44.3	10	"	44.8000		98.9	70-130			
2,4-Dimethylphenol	25.7	10	"	44.8000		57.3	70-130			QR-06
Bis (2-Chloroethoxy) Methane	50.2	10	"	44.8000		112	70-130			
2,4-Dichlorophenol	45.0	10	"	44.8000		100	70-130			
4-Chloro-3-methylphenol	44.5	10	"	44.8000		99.4	70-130			
2,4,6-Trichlorophenol	45.7	10	"	44.8000		102	70-130			
2,4,5-Trichlorophenol	43.7	50	"	44.8000		97.5	70-130			
Dimethylphthalate	39.3	15	"	44.8000		87.8	70-130			
2,4-Dinitrophenol	41.6	20	"	44.8000		93.0	70-130			
4-Nitrophenol	46.4	10	"	44.8000		103	70-130			
Diethyl Phthalate	42.7	30	"	44.8000		95.4	70-130			
4-Chlorophenyl Phenyl Ether	41.5	10	"	44.2400		93.8	70-130			
4,6-Dinitro-2-methylphenol	39.4	20	"	44.8000		88.0	70-130			
N-Nitrosodiphenylamine	26.9	10	"	44.8000		60.0	70-130			QR-06
4-Bromophenyl Phenyl Ether	41.3	10	"	44.8000		92.1	70-130			
Pentachlorophenol	45.3	20	"	44.8000		101	70-130			
Di-n-butyl Phthalate	43.5	10	"	44.8000		97.1	70-130			
Butyl Benzyl Phthalate	41.7	10	"	44.8000		93.0	70-130			
Bis(2-Ethylhexyl) Phthalate	40.3	10	"	44.8000		90.0	70-130			
Di-n-octyl Phthalate	40.8	10	"	44.8000		91.0	70-130			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
Reference (1WC0817-SRM2)				Prepared: 03/26/13 Analyzed: 04/03/13						
Surrogate: Nitrobenzene-d5	*66.5*		*ug/L*	*71.9600*		*92.4*	*20-120*			
Surrogate: 2-Fluorobiphenyl	*75.2*		*"*	*72.8800*		*103*	*20-110*			
Surrogate: Terphenyl-dl4	*72.5*		*"*	*72.0000*		*101*	*35-144*			
Aniline	47.3	10	"	44.8000		106	70-130			
1,3-Dichlorobenzene	41.8	10	"	44.8000		93.3	70-130			
1,4-Dichlorobenzene	44.1	10	"	44.8000		98.4	70-130			
Benzyl Alcohol	48.5	10	"	44.8000		108	70-130			
1,2-Dichlorobenzene	42.5	10	"	44.8000		94.8	70-130			
Hexachloroethane	45.4	10	"	44.8000		101	70-130			
Nitrobenzene	43.7	10	"	44.8000		97.5	70-130			
Isophorone	46.0	10	"	44.8000		103	70-130			
1,2,4-Trichlorobenzene	42.8	10	"	44.8000		95.5	70-130			
Naphthalene	41.8	10	"	44.8000		93.4	70-130			
4-Chloroaniline	45.2	10	"	44.9400		101	70-130			
Hexachlorobutadiene	42.4	20	"	44.8000		94.7	70-130			
2-Methylnaphthalene	42.3	10	"	44.8000		94.3	70-130			
Hexachlorocyclopentadiene	41.6	20	"	44.8000		92.9	70-130			
2-Chloronaphthalene	44.4	10	"	44.8000		99.1	70-130			
2-Nitroaniline	44.4	50	"	44.9540		98.8	70-130			
Acenaphthylene	43.0	10	"	44.8000		95.9	70-130			
2,6-Dinitrotoluene	42.9	10	"	44.8000		95.8	70-130			
3-Nitroaniline	51.1	10	"	44.8000		114	70-130			
Acenaphthene	45.1	10	"	44.8000		101	70-130			
Dibenzofuran	45.6	10	"	44.8000		102	70-130			
2,4-Dinitrotoluene	39.8	10	"	44.8000		88.8	70-130			
Fluorene	44.7	10	"	44.8000		99.7	70-130			
4-Nitroaniline	38.9	20	"	44.8840		86.8	70-130			
Azobenzene	43.5	10	"	44.9400		96.8	70-130			
Hexachlorobenzene	44.2	10	"	44.8000		98.7	70-130			
Phenanthrene	46.2	10	"	44.8000		103	70-130			
Anthracene	42.5	10	"	44.8000		94.8	70-130			
Fluoranthene	47.7	10	"	44.8000		106	70-130			
Pyrene	49.6	10	"	44.8000		111	70-130			
Benzo(a)anthracene	47.4	10	"	44.8000		106	70-130			
Chrysene	47.9	10	"	44.8000		107	70-130			
Indeno(1,2,3-cd)Pyrene	52.6	10	"	44.8000		117	70-130			
Benzo(b)Fluoranthene	48.2	10	"	44.8000		108	70-130			
Benzo(k)Fluoranthene	47.2	10	"	44.8000		105	70-130			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0817 - 3520C BNA Cont Liq										
Reference (1WC0817-SRM2)				Prepared: 03/26/13 Analyzed: 04/03/13						
Benzo(a)Pyrene	45.8	10	ug/L	44.8000		102	70-130			
Dibenzo(a,h)anthracene	50.4	10	"	44.8000		112	70-130			
Benzo(g,h,i)perylene	47.5	10	"	44.8000		106	70-130			
Batch 1WC0958 - 3545 BNA PFE										
Blank (1WC0958-BLK1)				Prepared: 03/29/13 Analyzed: 04/04/13						
Surrogate: 2-Fluorophenol	*1.51*		*mg/kg wet*	*2.41333*		*62.5*	*15-127*			
Surrogate: Phenol-d6	*1.58*		*"*	*2.40667*		*65.4*	*16-132*			
Surrogate: Nitrobenzene-d5	*1.77*		*"*	*2.39867*		*73.9*	*15-147*			
Surrogate: 2-Fluorobiphenyl	*1.89*		*"*	*2.42933*		*77.7*	*33-133*			
Surrogate: 2,4,6-Tribromophenol	*1.82*		*"*	*2.40667*		*75.5*	*24-163*			
Surrogate: Terphenyl-dl4	*2.39*		*"*	*2.40000*		*99.5*	*16-151*			
N-Nitrosodimethylamine	ND	0.33	"							
Phenol	ND	0.33	"							
Aniline	ND	0.33	"							
Bis(2-Chloroethyl) Ether	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
Benzyl Alcohol	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
2-Methylphenol (o-Cresol)	ND	0.33	"							
Bis[2-Chloroisopropyl]ether	ND	0.33	"							
n-Nitroso-di-n-propylamine	ND	0.33	"							
(3 & 4)-Methylphenol	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Bis (2-Chloroethoxy) Methane	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
Naphthalene	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
Blank (1WC0958-BLK1)				Prepared: 03/29/13 Analyzed: 04/04/13						
Hexachlorocyclopentadiene	ND	0.33	mg/kg wet							
2,4,6-Trichlorophenol	ND	0.33	"							
2,4,5-Trichlorophenol	ND	1.65	"							
2-Chloronaphthalene	ND	0.33	"							
2-Nitroaniline	ND	1.65	"							
Dimethylphthalate	ND	0.33	"							
Acenaphthylene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							
3-Nitroaniline	ND	1.65	"							
Acenaphthene	ND	0.33	"							
2,4-Dinitrophenol	ND	1.65	"							
Dibenzofuran	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
4-Nitrophenol	ND	0.66	"							
Diethyl Phthalate	ND	0.33	"							
Fluorene	ND	0.33	"							
4-Chlorophenyl Phenyl Ether	ND	0.33	"							
4-Nitroaniline	ND	0.66	"							
4,6-Dinitro-2-methylphenol	ND	1.65	"							
N-Nitrosodiphenylamine	ND	0.33	"							
Azobenzene	ND	0.33	"							
4-Bromophenyl Phenyl Ether	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Pentachlorophenol	ND	0.66	"							
Phenanthrene	ND	0.33	"							
Anthracene	ND	0.33	"							
Di-n-butyl Phthalate	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Benzidine	ND	0.33	"							
Pyrene	ND	0.33	"							
Butyl Benzyl Phthalate	ND	0.33	"							
Benzo(a)anthracene	ND	0.33	"							
Chrysene	ND	0.33	"							
Bis(2-Ethylhexyl) Phthalate	ND	0.33	"							
Di-n-octyl Phthalate	ND	0.33	"							
Indeno(1,2,3-cd)Pyrene	ND	0.33	"							
3,3´-Dichlorobenzidine	ND	0.66	"							
Benzo(b)Fluoranthene	ND	0.33	"							
Benzo(k)Fluoranthene	ND	0.33	"							

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
Blank (1WC0958-BLK1)				Prepared: 03/29/13 Analyzed: 04/04/13						
Benzo(a)Pyrene	ND	0.31	mg/kg wet							
Dibenzo(a,h)anthracene	ND	0.33	"							
Benzo(g,h,i)perylene	ND	0.33	"							
LCS (1WC0958-BS1)				Prepared: 03/29/13 Analyzed: 04/04/13						
Surrogate: 2-Fluorophenol	*1.19*		*mg/kg wet*	*2.41333*		*49.4*	*15-127*			
Surrogate: Phenol-d6	*1.30*		*"*	*2.40667*		*53.8*	*16-132*			
Surrogate: Nitrobenzene-d5	*1.33*		*"*	*2.39867*		*55.5*	*15-147*			
Surrogate: 2-Fluorobiphenyl	*1.48*		*"*	*2.42933*		*61.1*	*33-133*			
Surrogate: 2,4,6-Tribromophenol	*1.85*		*"*	*2.40667*		*76.8*	*24-163*			
Surrogate: Terphenyl-dl4	*1.92*		*"*	*2.40000*		*79.8*	*16-151*			
N-Nitrosodimethylamine	0.854	0.33	"	1.49333		57.2	19-108			
Phenol	0.776	0.33	"	1.49333		52.0	36.2-101			
Bis(2-Chloroethyl) Ether	0.943	0.33	"	1.49333		63.1	21-98			
2-Chlorophenol	0.747	0.33	"	1.49333		50.0	41-93.9			
1,3-Dichlorobenzene	0.647	0.33	"	1.49333		43.3	36-92			
1,4-Dichlorobenzene	0.718	0.33	"	1.49333		48.1	39-91			
Benzyl Alcohol	0.835	0.33	"	1.49333		55.9	26-100			
1,2-Dichlorobenzene	0.768	0.33	"	1.49333		51.4	40-92			
2-Methylphenol (o-Cresol)	0.765	0.33	"	1.49333		51.2	38-93			
Bis[2-Chloroisopropyl]ether	0.834	0.33	"	1.49333		55.8	36-97			
n-Nitroso-di-n-propylamine	0.920	0.33	"	1.49333		61.6	29-107			
(3 & 4)-Methylphenol	0.768	0.33	"	1.49333		51.5	34-91			
Hexachloroethane	0.817	0.33	"	1.49333		54.7	39-95			
Nitrobenzene	0.870	0.33	"	1.49333		58.2	40-99			
Isophorone	0.836	0.33	"	1.49333		56.0	43-97			
2-Nitrophenol	0.813	0.33	"	1.49333		54.4	45-104			
2,4-Dimethylphenol	0.461	0.33	"	1.49333		30.8	13-82			
Bis (2-Chloroethoxy) Methane	0.843	0.33	"	1.49333		56.5	41-105			
2,4-Dichlorophenol	0.829	0.33	"	1.49333		55.5	42-106			
1,2,4-Trichlorobenzene	0.761	0.33	"	1.49333		51.0	27-111			
Naphthalene	0.859	0.33	"	1.49333		57.5	19-134			
Hexachlorobutadiene	0.834	0.33	"	1.49333		55.8	26-126			
4-Chloro-3-methylphenol	0.879	0.33	"	1.49333		58.8	50-122			
2-Methylnaphthalene	0.868	0.33	"	1.49333		58.1	34-110			
Hexachlorocyclopentadiene	0.942	0.33	"	1.49333		63.1	19-94.4			
2,4,6-Trichlorophenol	0.913	0.33	"	1.49333		61.1	36-130			
2,4,5-Trichlorophenol	0.974	1.65	"	1.49333		65.2	45-125			
2-Chloronaphthalene	0.865	0.33	"	1.49333		57.9	37-108			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
LCS (1WC0958-BS1)				Prepared: 03/29/13 Analyzed: 04/04/13						
2-Nitroaniline	1.009	1.65	mg/kg wet	1.49847		67.4	41-119			
Dimethylphthalate	1.054	0.33	"	1.49333		70.6	46-138			
Acenaphthylene	0.872	0.33	"	1.49333		58.4	43-120			
2,6-Dinitrotoluene	0.995	0.33	"	1.49333		66.6	37-142			
3-Nitroaniline	0.656	1.65	"	1.49333		43.9	16-91			
Acenaphthene	0.962	0.33	"	1.49333		64.4	41-130			
2,4-Dinitrophenol	1.202	1.65	"	1.49333		80.5	41-146			
Dibenzofuran	0.959	0.33	"	1.49333		64.2	40-120			
2,4-Dinitrotoluene	1.002	0.33	"	1.49333		67.1	45-141			
4-Nitrophenol	1.088	0.66	"	1.49333		72.8	27-155			
Diethyl Phthalate	1.185	0.33	"	1.49333		79.4	28-168			
Fluorene	1.073	0.33	"	1.49333		71.8	53-120			
4-Chlorophenyl Phenyl Ether	0.959	0.33	"	1.47467		65.0	47-151			
4-Nitroaniline	0.890	0.66	"	1.49613		59.5	39-117			
4,6-Dinitro-2-methylphenol	1.225	1.65	"	1.49333		82.0	46-143			
N-Nitrosodiphenylamine	0.692	0.33	"	1.49333		46.4	22-99.3			
Azobenzene	1.062	0.33	"	1.49800		70.9	36-135			
4-Bromophenyl Phenyl Ether	1.292	0.33	"	1.49333		86.5	44-128			
Hexachlorobenzene	1.325	0.33	"	1.49333		88.7	35-139			
Pentachlorophenol	1.354	0.66	"	1.49333		90.7	50-132			
Phenanthrene	1.283	0.33	"	1.49333		85.9	43.4-139			
Anthracene	1.113	0.33	"	1.49333		74.5	36-127			
Di-n-butyl Phthalate	1.431	0.33	"	1.49333		95.8	24-180			
Fluoranthene	1.296	0.33	"	1.49333		86.8	52-136			
Pyrene	1.287	0.33	"	1.49333		86.2	43-132			
Butyl Benzyl Phthalate	1.307	0.33	"	1.49333		87.5	43-148			
Benzo(a)anthracene	1.177	0.33	"	1.49333		78.8	49-128			
Chrysene	1.209	0.33	"	1.49333		81.0	53-130			
Bis(2-Ethylhexyl) Phthalate	1.411	0.33	"	1.49333		94.5	40-147			
Di-n-octyl Phthalate	1.658	0.33	"	1.49333		111	32-167			
Indeno(1,2,3-cd)Pyrene	1.313	0.33	"	1.49333		87.9	24-139			
Benzo(b)Fluoranthene	1.338	0.33	"	1.49333		89.6	56-122			
Benzo(k)Fluoranthene	1.360	0.33	"	1.49333		91.1	45-153			
Benzo(a)Pyrene	1.239	0.31	"	1.49333		83.0	39-117			
Dibenzo(a,h)anthracene	1.245	0.33	"	1.49333		83.4	38-144			
Benzo(g,h,i)perylene	1.163	0.33	"	1.49333		77.9	35-148			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
Matrix Spike (1WC0958-MS1)	**Source: 1C31317-02**			Prepared: 03/29/13 Analyzed: 04/05/13						
Surrogate: 2-Fluorophenol	*1.24*		*mg/kg dry*	*2.81726*		*44.1*	*15-127*			
Surrogate: Phenol-d6	*1.55*		*"*	*2.80947*		*55.2*	*16-132*			
Surrogate: Nitrobenzene-d5	*1.63*		*"*	*2.80014*		*58.1*	*15-147*			
Surrogate: 2-Fluorobiphenyl	*2.09*		*"*	*2.83593*		*73.6*	*33-133*			
Surrogate: 2,4,6-Tribromophenol	*2.28*		*"*	*2.80947*		*81.2*	*24-163*			
Surrogate: Terphenyl-dl4	*2.68*		*"*	*2.80169*		*95.5*	*16-151*			
N-Nitrosodimethylamine	1.012	0.33	"	1.74328	ND	58.1	28-104			
Phenol	0.944	0.33	"	1.74328	ND	54.2	23-127			
Bis(2-Chloroethyl) Ether	0.840	0.33	"	1.74328	ND	48.2	15-127			
2-Chlorophenol	0.869	0.33	"	1.74328	ND	49.8	24-115			
1,3-Dichlorobenzene	0.718	0.33	"	1.74328	ND	41.2	23-110			
1,4-Dichlorobenzene	0.723	0.33	"	1.74328	ND	41.5	23-114			
Benzyl Alcohol	1.001	0.33	"	1.74328	ND	57.4	17-139			
1,2-Dichlorobenzene	0.722	0.33	"	1.74328	ND	41.4	35-106			
2-Methylphenol (o-Cresol)	0.961	0.33	"	1.74328	ND	55.1	14-131			
Bis[2-Chloroisopropyl]ether	0.904	0.33	"	1.74328	ND	51.8	27-122			
n-Nitroso-di-n-propylamine	1.236	0.33	"	1.74328	ND	70.9	15-147			
(3 & 4)-Methylphenol	1.151	0.33	"	1.74328	ND	66.0	17-136			
Hexachloroethane	0.774	0.33	"	1.74328	ND	44.4	18-130			
Nitrobenzene	0.869	0.33	"	1.74328	ND	49.8	29-124			
Isophorone	1.200	0.33	"	1.74328	ND	68.9	27-130			
2-Nitrophenol	0.883	0.33	"	1.74328	ND	50.6	28-136			
2,4-Dimethylphenol	0.555	0.33	"	1.74328	ND	31.8	10-115			
Bis (2-Chloroethoxy) Methane	1.028	0.33	"	1.74328	ND	59.0	36-114			
2,4-Dichlorophenol	1.154	0.33	"	1.74328	ND	66.2	22-132			
1,2,4-Trichlorobenzene	0.805	0.33	"	1.74328	ND	46.2	35-130			
Naphthalene	0.938	0.33	"	1.74328	ND	53.8	28-122			
Hexachlorobutadiene	0.793	0.33	"	1.74328	ND	45.5	30-144			
4-Chloro-3-methylphenol	1.410	0.33	"	1.74328	ND	80.9	36-138			
2-Methylnaphthalene	0.995	0.33	"	1.74328	ND	57.1	16-133			
Hexachlorocyclopentadiene	0.828	0.33	"	1.74328	ND	47.5	21-109			
2,4,6-Trichlorophenol	1.431	0.33	"	1.74328	ND	82.1	25-143			
2,4,5-Trichlorophenol	1.404	1.65	"	1.74328	ND	80.6	52-141			
2-Chloronaphthalene	1.094	0.33	"	1.74328	ND	62.8	40-123			
Dimethylphthalate	1.491	0.33	"	1.74328	ND	85.5	49-139			
2-Nitroaniline	1.279	1.65	"	1.74927	ND	73.1	44-130			
Acenaphthylene	1.246	0.33	"	1.74328	ND	71.5	44-130			
2,6-Dinitrotoluene	1.281	0.33	"	1.74328	ND	73.5	38-139			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
Matrix Spike (1WC0958-MS1)	**Source: 1C31317-02**			Prepared: 03/29/13 Analyzed: 04/05/13						
3-Nitroaniline	0.856	1.65	mg/kg dry	1.74328	ND	49.1	16-92			
Acenaphthene	1.301	0.33	"	1.74328	ND	74.6	33-128			
2,4-Dinitrophenol	1.360	1.65	"	1.74328	ND	78.0	38-155			
Dibenzofuran	1.210	0.33	"	1.74328	ND	69.4	42-133			
2,4-Dinitrotoluene	1.294	0.33	"	1.74328	ND	74.2	50-139			
4-Nitrophenol	1.380	0.66	"	1.74328	ND	79.2	44-138			
Diethyl Phthalate	1.499	0.33	"	1.74328	ND	86.0	36-145			
Fluorene	1.449	0.33	"	1.74328	ND	83.1	27-148			
4-Chlorophenyl Phenyl Ether	1.386	0.33	"	1.72148	ND	80.5	40-153			
4-Nitroaniline	0.906	0.66	"	1.74654	ND	51.9	27-110			
4,6-Dinitro-2-methylphenol	1.511	1.65	"	1.74328	ND	86.7	55-146			
N-Nitrosodiphenylamine	1.468	0.33	"	1.74328	ND	84.2	27-152			
Azobenzene	1.362	0.33	"	1.74872	ND	77.9	41-141			
4-Bromophenyl Phenyl Ether	1.509	0.33	"	1.74328	ND	86.5	34-151			
Hexachlorobenzene	1.479	0.33	"	1.74328	ND	84.8	43-135			
Pentachlorophenol	1.826	0.66	"	1.74328	ND	105	48-163			
Phenanthrene	1.567	0.33	"	1.74328	ND	89.9	40-142			
Anthracene	1.196	0.33	"	1.74328	ND	68.6	22-134			
Di-n-butyl Phthalate	1.804	0.33	"	1.74328	ND	103	31-151			
Fluoranthene	1.506	0.33	"	1.74328	ND	86.4	37-146			
Pyrene	1.837	0.33	"	1.74328	ND	105	29-143			
Butyl Benzyl Phthalate	1.719	0.33	"	1.74328	ND	98.6	22-185			
Benzo(a)anthracene	1.407	0.33	"	1.74328	ND	80.7	38-128			
Chrysene	1.446	0.33	"	1.74328	ND	83.0	34-140			
Bis(2-Ethylhexyl) Phthalate	1.659	0.33	"	1.74328	ND	95.2	50-163			
Di-n-octyl Phthalate	2.177	0.33	"	1.74328	ND	125	50-150			
Indeno(1,2,3-cd)Pyrene	1.165	0.33	"	1.74328	ND	66.8	11-134			
Benzo(b)Fluoranthene	1.778	0.33	"	1.74328	ND	102	33-154			
Benzo(k)Fluoranthene	1.608	0.33	"	1.74328	ND	92.2	26-148			
Benzo(a)Pyrene	1.505	0.31	"	1.74328	ND	86.3	26-138			
Dibenzo(a,h)anthracene	1.048	0.33	"	1.74328	ND	60.1	15-125			
Benzo(g,h,i)perylene	1.042	0.33	"	1.74328	ND	59.8	25-114			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
Matrix Spike Dup (1WC0958-MSD1)	**Source: 1C31317-02**		Prepared: 03/29/13 Analyzed: 04/05/13							
Surrogate: 2-Fluorophenol	*0.911*		*mg/kg dry*	*2.77842*		*32.8*	*15-127*			
Surrogate: Phenol-d6	*1.38*		*"*	*2.77075*		*49.7*	*16-132*			
Surrogate: Nitrobenzene-d5	*1.31*		*"*	*2.76154*		*47.4*	*15-147*			
Surrogate: 2-Fluorobiphenyl	*2.04*		*"*	*2.79684*		*73.0*	*33-133*			
Surrogate: 2,4,6-Tribromophenol	*2.44*		*"*	*2.77075*		*88.0*	*24-163*			
Surrogate: Terphenyl-dl4	*2.81*		*"*	*2.76307*		*102*	*16-151*			
N-Nitrosodimethylamine	0.756	0.33	"	1.71924	ND	44.0	28-104	29.0	30	
Phenol	0.835	0.33	"	1.71924	ND	48.5	23-127	12.3	30	
Bis(2-Chloroethyl) Ether	0.757	0.33	"	1.71924	ND	44.0	15-127	10.4	30	
2-Chlorophenol	0.654	0.33	"	1.71924	ND	38.0	24-115	28.2	30	
1,3-Dichlorobenzene	0.526	0.33	"	1.71924	ND	30.6	23-110	31.0	30	QM-07
1,4-Dichlorobenzene	0.570	0.33	"	1.71924	ND	33.1	23-114	23.8	30	
Benzyl Alcohol	0.944	0.33	"	1.71924	ND	54.9	17-139	5.84	26	
1,2-Dichlorobenzene	0.591	0.33	"	1.71924	ND	34.4	35-106	19.9	30	QM-07
2-Methylphenol (o-Cresol)	0.876	0.33	"	1.71924	ND	50.9	14-131	9.26	30	
Bis[2-Chloroisopropyl]ether	0.656	0.33	"	1.71924	ND	38.2	27-122	31.7	30	QR-02
n-Nitroso-di-n-propylamine	1.051	0.33	"	1.71924	ND	61.1	15-147	16.2	30	
(3 & 4)-Methylphenol	1.067	0.33	"	1.71924	ND	62.1	17-136	7.56	30	
Hexachloroethane	0.592	0.33	"	1.71924	ND	34.4	18-130	26.7	30	
Nitrobenzene	0.754	0.33	"	1.71924	ND	43.9	29-124	14.1	30	
Isophorone	1.208	0.33	"	1.71924	ND	70.2	27-130	0.602	30	
2-Nitrophenol	0.840	0.33	"	1.71924	ND	48.9	28-136	4.93	30	
2,4-Dimethylphenol	0.382	0.33	"	1.71924	ND	22.2	10-115	36.8	30	QR-02
Bis (2-Chloroethoxy) Methane	1.000	0.33	"	1.71924	ND	58.2	36-114	2.72	30	
2,4-Dichlorophenol	1.169	0.33	"	1.71924	ND	68.0	22-132	1.31	30	
1,2,4-Trichlorobenzene	0.688	0.33	"	1.71924	ND	40.0	35-130	15.7	30	
Naphthalene	0.882	0.33	"	1.71924	ND	51.3	28-122	6.14	30	
Hexachlorobutadiene	0.637	0.33	"	1.71924	ND	37.1	30-144	21.9	30	
4-Chloro-3-methylphenol	1.438	0.33	"	1.71924	ND	83.7	36-138	1.98	30	
2-Methylnaphthalene	1.058	0.33	"	1.71924	ND	61.6	16-133	6.18	30	
Hexachlorocyclopentadiene	0.677	0.33	"	1.71924	ND	39.4	21-109	20.1	30	
2,4,6-Trichlorophenol	1.579	0.33	"	1.71924	ND	91.8	25-143	9.83	30	
2,4,5-Trichlorophenol	1.462	1.65	"	1.71924	ND	85.0	52-141	4.03	30	
2-Chloronaphthalene	1.192	0.33	"	1.71924	ND	69.4	40-123	8.58	30	
Dimethylphthalate	1.501	0.33	"	1.71924	ND	87.3	49-139	0.679	25	
2-Nitroaniline	1.366	1.65	"	1.72516	ND	79.2	44-130	6.53	28	
Acenaphthylene	1.243	0.33	"	1.71924	ND	72.3	44-130	0.208	27	
2,6-Dinitrotoluene	1.260	0.33	"	1.71924	ND	73.3	38-139	1.69	28	

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3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
Matrix Spike Dup (1WC0958-MSD1)	**Source: 1C31317-02**			Prepared: 03/29/13 Analyzed: 04/05/13						
3-Nitroaniline	0.798	1.65	mg/kg dry	1.71924	ND	46.4	16-92	7.00	30	
Acenaphthene	1.283	0.33	"	1.71924	ND	74.6	33-128	1.39	25	
2,4-Dinitrophenol	1.497	1.65	"	1.71924	ND	87.1	38-155	9.59	30	
Dibenzofuran	1.367	0.33	"	1.71924	ND	79.5	42-133	12.2	26	
2,4-Dinitrotoluene	1.398	0.33	"	1.71924	ND	81.3	50-139	7.74	26	
4-Nitrophenol	1.888	0.66	"	1.71924	ND	110	44-138	31.1	30	QR-02
Diethyl Phthalate	1.801	0.33	"	1.71924	ND	105	36-145	18.3	26	
Fluorene	1.463	0.33	"	1.71924	ND	85.1	27-148	0.921	20	
4-Chlorophenyl Phenyl Ether	1.486	0.33	"	1.69776	ND	87.5	40-153	6.98	26	
4-Nitroaniline	0.885	0.66	"	1.72247	ND	51.4	27-110	2.34	30	
4,6-Dinitro-2-methylphenol	1.434	1.65	"	1.71924	ND	83.4	55-146	5.25	30	
N-Nitrosodiphenylamine	1.441	0.33	"	1.71924	ND	83.8	27-152	1.84	29	
Azobenzene	1.349	0.33	"	1.72462	ND	78.2	41-141	0.989	27	
4-Bromophenyl Phenyl Ether	1.491	0.33	"	1.71924	ND	86.7	34-151	1.18	23	
Hexachlorobenzene	1.467	0.33	"	1.71924	ND	85.3	43-135	0.837	22	
Pentachlorophenol	1.723	0.66	"	1.71924	ND	100	48-163	5.81	26	
Phenanthrene	1.595	0.33	"	1.71924	ND	92.8	40-142	1.76	25	
Anthracene	1.266	0.33	"	1.71924	ND	73.6	22-134	5.68	30	
Di-n-butyl Phthalate	1.613	0.33	"	1.71924	ND	93.8	31-151	11.1	30	
Fluoranthene	1.523	0.33	"	1.71924	ND	88.6	37-146	1.14	30	
Pyrene	1.630	0.33	"	1.71924	ND	94.8	29-143	12.0	30	
Butyl Benzyl Phthalate	1.860	0.33	"	1.71924	ND	108	22-185	7.88	29	
Benzo(a)anthracene	1.460	0.33	"	1.71924	ND	84.9	38-128	3.68	30	
Chrysene	1.487	0.33	"	1.71924	ND	86.5	34-140	2.80	28	
Bis(2-Ethylhexyl) Phthalate	1.699	0.33	"	1.71924	ND	98.8	50-163	2.36	30	
Di-n-octyl Phthalate	2.456	0.33	"	1.71924	ND	143	50-150	12.1	30	
Indeno(1,2,3-cd)Pyrene	1.018	0.33	"	1.71924	ND	59.2	11-134	13.5	28	
Benzo(b)Fluoranthene	1.777	0.33	"	1.71924	ND	103	33-154	0.0620	30	
Benzo(k)Fluoranthene	1.755	0.33	"	1.71924	ND	102	26-148	8.73	30	
Benzo(a)Pyrene	1.588	0.31	"	1.71924	ND	92.4	26-138	5.41	24	
Dibenzo(a,h)anthracene	0.923	0.33	"	1.71924	ND	53.7	15-125	12.8	25	
Benzo(g,h,i)perylene	0.930	0.33	"	1.71924	ND	54.1	25-114	11.4	30	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
Reference (1WC0958-SRM1)				Prepared: 03/29/13 Analyzed: 04/04/13						
Surrogate: 2-Fluorophenol	*2.26*		*mg/kg wet*	*2.41333*		*93.4*	*15-127*			
Surrogate: Phenol-d6	*2.19*		*"*	*2.40667*		*91.1*	*16-132*			
Surrogate: Nitrobenzene-d5	*2.15*		*"*	*2.39867*		*89.7*	*15-147*			
Surrogate: 2-Fluorobiphenyl	*2.44*		*"*	*2.42933*		*101*	*33-133*			
Surrogate: 2,4,6-Tribromophenol	*1.88*		*"*	*2.40667*		*78.2*	*24-163*			
Surrogate: Terphenyl-dl4	*2.30*		*"*	*2.40000*		*95.6*	*16-151*			
N-Nitrosodimethylamine	1.709	0.33	"	1.49333		114	70-130			
Phenol	1.304	0.33	"	1.49333		87.3	70-130			
Aniline	1.311	0.33	"	1.49333		87.8	70-130			
Bis(2-Chloroethyl) Ether	1.546	0.33	"	1.49333		104	70-130			
2-Chlorophenol	1.309	0.33	"	1.49333		87.7	70-130			
1,3-Dichlorobenzene	1.362	0.33	"	1.49333		91.2	70-130			
1,4-Dichlorobenzene	1.423	0.33	"	1.49333		95.3	70-130			
Benzyl Alcohol	1.320	0.33	"	1.49333		88.4	70-130			
1,2-Dichlorobenzene	1.251	0.33	"	1.49333		83.8	70-130			
2-Methylphenol (o-Cresol)	1.216	0.33	"	1.49333		81.5	70-130			
Bis[2-Chloroisopropyl]ether	1.388	0.33	"	1.49333		92.9	70-130			
n-Nitroso-di-n-propylamine	1.371	0.33	"	1.49333		91.8	70-130			
(3 & 4)-Methylphenol	1.100	0.33	"	1.49333		73.7	70-130			
Hexachloroethane	1.424	0.33	"	1.49333		95.4	70-130			
Nitrobenzene	1.437	0.33	"	1.49333		96.2	70-130			
Isophorone	1.263	0.33	"	1.49333		84.6	70-130			
2-Nitrophenol	1.289	0.33	"	1.49333		86.3	70-130			
2,4-Dimethylphenol	0.784	0.33	"	1.49333		52.5	70-130			QR-06
Bis (2-Chloroethoxy) Methane	1.329	0.33	"	1.49333		89.0	70-130			
2,4-Dichlorophenol	1.266	0.33	"	1.49333		84.8	70-130			
1,2,4-Trichlorobenzene	1.264	0.33	"	1.49333		84.6	70-130			
Naphthalene	1.516	0.33	"	1.49333		102	70-130			
4-Chloroaniline	1.452	0.33	"	1.49800		96.9	70-130			
Hexachlorobutadiene	1.356	0.33	"	1.49333		90.8	70-130			
4-Chloro-3-methylphenol	1.348	0.33	"	1.49333		90.2	70-130			
2-Methylnaphthalene	1.336	0.33	"	1.49333		89.5	70-130			
Hexachlorocyclopentadiene	1.324	0.33	"	1.49333		88.7	70-130			
2,4,6-Trichlorophenol	1.458	0.33	"	1.49333		97.6	70-130			
2,4,5-Trichlorophenol	1.245	1.65	"	1.49333		83.4	70-130			
2-Chloronaphthalene	1.251	0.33	"	1.49333		83.8	70-130			
2-Nitroaniline	1.212	1.65	"	1.49847		80.9	70-130			
Dimethylphthalate	1.355	0.33	"	1.49333		90.7	70-130			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0958 - 3545 BNA PFE										
Reference (1WC0958-SRM1)				Prepared: 03/29/13 Analyzed: 04/04/13						
Acenaphthylene	1.278	0.33	mg/kg wet	1.49333		85.6	70-130			
2,6-Dinitrotoluene	1.242	0.33	"	1.49333		83.2	70-130			
3-Nitroaniline	1.386	1.65	"	1.49333		92.8	70-130			
Acenaphthene	1.232	0.33	"	1.49333		82.5	70-130			
2,4-Dinitrophenol	1.204	1.65	"	1.49333		80.6	70-130			
Dibenzofuran	1.295	0.33	"	1.49333		86.7	70-130			
2,4-Dinitrotoluene	1.258	0.33	"	1.49333		84.3	70-130			
4-Nitrophenol	1.180	0.66	"	1.49333		79.0	70-130			
Diethyl Phthalate	1.463	0.33	"	1.49333		98.0	70-130			
Fluorene	1.255	0.33	"	1.49333		84.1	70-130			
4-Chlorophenyl Phenyl Ether	1.358	0.33	"	1.47467		92.1	70-130			
4-Nitroaniline	1.133	0.66	"	1.49613		75.7	70-130			
4,6-Dinitro-2-methylphenol	1.304	1.65	"	1.49333		87.3	70-130			
N-Nitrosodiphenylamine	1.427	0.33	"	1.49333		95.6	70-130			
Azobenzene	1.443	0.33	"	1.49800		96.4	70-130			
4-Bromophenyl Phenyl Ether	1.399	0.33	"	1.49333		93.7	70-130			
Hexachlorobenzene	1.435	0.33	"	1.49333		96.1	70-130			
Pentachlorophenol	1.358	0.66	"	1.49333		90.9	70-130			
Phenanthrene	1.458	0.33	"	1.49333		97.6	70-130			
Anthracene	1.401	0.33	"	1.49333		93.8	70-130			
Di-n-butyl Phthalate	1.529	0.33	"	1.49333		102	70-130			
Fluoranthene	1.336	0.33	"	1.49333		89.5	70-130			
Pyrene	1.499	0.33	"	1.49333		100	70-130			
Butyl Benzyl Phthalate	1.548	0.33	"	1.49333		104	70-130			
Benzo(a)anthracene	1.462	0.33	"	1.49333		97.9	70-130			
Chrysene	1.514	0.33	"	1.49333		101	70-130			
Bis(2-Ethylhexyl) Phthalate	1.661	0.33	"	1.49333		111	70-130			
Di-n-octyl Phthalate	1.634	0.33	"	1.49333		109	70-130			
Indeno(1,2,3-cd)Pyrene	1.438	0.33	"	1.49333		96.3	70-130			
Benzo(b)Fluoranthene	1.373	0.33	"	1.49333		91.9	70-130			
Benzo(k)Fluoranthene	1.468	0.33	"	1.49333		98.3	70-130			
Benzo(a)Pyrene	1.544	0.31	"	1.49333		103	70-130			
Dibenzo(a,h)anthracene	1.353	0.33	"	1.49333		90.6	70-130			
Benzo(g,h,i)perylene	1.289	0.33	"	1.49333		86.3	70-130			

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Conventional Chemistry Parameters - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0753 - Wet Chem Preparation										
Duplicate (1WC0753-DUP1)		**Source: 1C31128-01**		Prepared & Analyzed: 03/25/13						
% Solids	6.24	0.1	%		6.15			1.45	20	
Batch 1WC0878 - Wet Chem Preparation										
Duplicate (1WC0878-DUP1)		**Source: 1C31480-01**		Prepared & Analyzed: 03/28/13						
% Solids	3.49	0.1	%		3.46			0.863	20	

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Determination of Dissolved Metals - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0786 - EPA 7470A Hg Water										
Blank (1WC0786-BLK1)				Prepared: 03/26/13 Analyzed: 03/29/13						
Mercury, dissolved	ND	0.00050	mg/L							
LCS (1WC0786-BS1)				Prepared: 03/26/13 Analyzed: 03/29/13						
Mercury, dissolved	0.00240	0.00050	mg/L	0.00250000		96.0	78-132			
Matrix Spike (1WC0786-MS1)		**Source: 1C31317-08**		Prepared: 03/26/13 Analyzed: 03/29/13						
Mercury, dissolved	0.00250	0.00050	mg/L	0.00250000	0.000322	87.1	78-136			
Matrix Spike Dup (1WC0786-MSD1)		**Source: 1C31317-08**		Prepared: 03/26/13 Analyzed: 03/29/13						
Mercury, dissolved	0.00243	0.00050	mg/L	0.00250000	0.000322	84.3	78-136	2.84	18	
Batch 1WC0798 - Dissolved Metal Prep										
Blank (1WC0798-BLK1)				Prepared: 03/26/13 Analyzed: 03/29/13						
Arsenic, dissolved	ND	0.0010	mg/L							
Barium, dissolved	ND	0.0010	"							
Cadmium, dissolved	ND	0.0002	"							
Chromium, dissolved	ND	0.0020	"							
Lead, dissolved	ND	0.0005	"							
Selenium, dissolved	ND	0.0010	"							
Silver, dissolved	ND	0.0010	"							
LCS (1WC0798-BS1)				Prepared: 03/26/13 Analyzed: 03/29/13						
Arsenic, dissolved	0.0176	0.0010	mg/L	0.0200000		88.2	80-120			
Barium, dissolved	0.0202	0.0010	"	0.0200000		101	80-120			
Cadmium, dissolved	0.0197	0.0002	"	0.0200000		98.7	80-120			
Chromium, dissolved	0.0203	0.0020	"	0.0200000		101	80-120			
Lead, dissolved	0.0198	0.0005	"	0.0200000		99.2	80-120			
Selenium, dissolved	0.0181	0.0010	"	0.0200000		90.5	80-120			
Silver, dissolved	0.0176	0.0010	"	0.0200000		87.8	80-120			

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Urbandale, IA 50322

Work Order: 1C31317

Determination of Dissolved Metals - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0798 - Dissolved Metal Prep										
Matrix Spike (1WC0798-MS1)	**Source: 1C31317-08**			Prepared: 03/26/13 Analyzed: 03/29/13						
Arsenic, dissolved	0.0727	0.0040	mg/L	0.0816326	0.0005	88.5	75-125			
Barium, dissolved	0.182	0.0040	"	0.0816326	0.0975	103	75-125			
Cadmium, dissolved	0.0803	0.0008	"	0.0816326	0.0017	96.3	75-125			
Chromium, dissolved	0.0734	0.0080	"	0.0816326	ND	89.9	75-125			
Lead, dissolved	0.0756	0.0020	"	0.0816326	ND	92.6	75-125			
Selenium, dissolved	0.0771	0.0040	"	0.0816326	0.0043	89.3	75-125			
Silver, dissolved	0.0689	0.0040	"	0.0816326	0.0012	83.0	75-125			
Matrix Spike Dup (1WC0798-MSD1)	**Source: 1C31317-08**			Prepared: 03/26/13 Analyzed: 03/29/13						
Arsenic, dissolved	0.0722	0.0040	mg/L	0.0816326	0.0005	87.9	75-125	0.629	20	
Barium, dissolved	0.183	0.0040	"	0.0816326	0.0975	105	75-125	0.773	20	
Cadmium, dissolved	0.0811	0.0008	"	0.0816326	0.0017	97.3	75-125	0.964	20	
Chromium, dissolved	0.0745	0.0080	"	0.0816326	ND	91.2	75-125	1.51	20	
Lead, dissolved	0.0764	0.0020	"	0.0816326	ND	93.6	75-125	1.12	20	
Selenium, dissolved	0.0734	0.0040	"	0.0816326	0.0043	84.7	75-125	4.93	20	
Silver, dissolved	0.0701	0.0040	"	0.0816326	0.0012	84.4	75-125	1.67	10	

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Urbandale, IA 50322

Work Order: 1C31317

Determination of Total Metals - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0855 - EPA 3050B Digestion (Soil)										
Blank (1WC0855-BLK1)				Prepared: 03/27/13 Analyzed: 03/29/13						
Arsenic, total	ND	2.5	mg/kg wet							
Barium, total	ND	0.50	"							
Cadmium, total	ND	0.5	"							
Chromium, total	ND	1.5	"							
Lead, total	ND	2.5	"							
Selenium, total	ND	1.5	"							
Silver, total	ND	0.5	"							
LCS (1WC0855-BS1)				Prepared: 03/27/13 Analyzed: 03/29/13						
Arsenic, total	47.6	2.5	mg/kg wet	50.0000		95.3	80-120			
Barium, total	49.9	0.50	"	50.0000		99.9	80-120			
Cadmium, total	48.6	0.5	"	50.0000		97.2	80-120			
Chromium, total	50.0	1.5	"	50.0000		100	80-120			
Lead, total	48.1	2.5	"	50.0000		96.1	80-120			
Selenium, total	43.0	1.5	"	50.0000		86.1	80-120			
Silver, total	47.6	0.5	"	50.0000		95.2	80-120			
Matrix Spike (1WC0855-MS1)		**Source: 1C30980-02**		Prepared: 03/27/13 Analyzed: 03/29/13						
Arsenic, total	191	38.2	mg/kg dry	190.872	9.9	94.9	75-125			
Barium, total	1580	7.63	"	190.872	1460	65.6	75-125			QM-4X
Cadmium, total	201	7.6	"	190.872	7.6	101	75-125			
Chromium, total	275	22.9	"	190.872	82.9	101	75-125			
Lead, total	299	38.2	"	190.872	81.7	114	75-125			
Selenium, total	199	22.9	"	190.872	19.9	93.8	75-125			
Silver, total	204	7.6	"	190.872	18.4	97.4	75-125			
Matrix Spike Dup (1WC0855-MSD1)		**Source: 1C30980-02**		Prepared: 03/27/13 Analyzed: 03/29/13						
Arsenic, total	195	39.3	mg/kg dry	196.326	9.9	94.0	75-125	0.871	20	
Barium, total	1640	7.85	"	196.326	1460	92.7	75-125	34.2	20	QM-4X
Cadmium, total	200	7.9	"	196.326	7.6	97.8	75-125	3.58	20	
Chromium, total	282	23.6	"	196.326	82.9	101	75-125	0.493	20	
Lead, total	273	39.3	"	196.326	81.7	97.5	75-125	15.5	20	
Selenium, total	203	23.6	"	196.326	19.9	93.1	75-125	0.739	20	
Silver, total	204	7.9	"	196.326	18.4	94.7	75-125	2.86	20	

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3660 109th Street
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Work Order: 1C31317

Determination of Total Metals - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WC0855 - EPA 3050B Digestion (Soil)										
Post Spike (1WC0855-PS1)		**Source: 1C30980-02**		Prepared: 03/27/13 Analyzed: 03/29/13						
Arsenic, total	2.0		mg/kg dry	2.00000	0.01	101	80-120			
Barium, total	3.64		"	2.00000	1.73	95.3	80-120			
Cadmium, total	2.0		"	2.00000	0.009	100	80-120			
Chromium, total	2.1		"	2.00000	0.1	103	80-120			
Lead, total	2.1		"	2.00000	0.1	99.2	80-120			
Selenium, total	2.0		"	2.00000	0.02	96.7	80-120			
Silver, total	1.8		"	2.00000	0.02	89.0	80-120			
Batch 1WD0105 - EPA 7471A Hg Solid										
Blank (1WD0105-BLK1)				Prepared & Analyzed: 04/03/13						
Mercury, total	ND	0.25	mg/kg wet							
LCS (1WD0105-BS1)				Prepared & Analyzed: 04/03/13						
Mercury, total	1.10	0.25	mg/kg wet	1.00000		110	71-118			
Matrix Spike (1WD0105-MS1)		**Source: 1D30101-01**		Prepared & Analyzed: 04/03/13						
Mercury, total	15.4	3.5	mg/kg dry	13.9179	ND	111	52-135			
Matrix Spike Dup (1WD0105-MSD1)		**Source: 1D30101-01**		Prepared & Analyzed: 04/03/13						
Mercury, total	14.8	3.4	mg/kg dry	13.5446	ND	109	52-135	1.82	20	

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

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Work Order: 1C31317

Certified Analyses included in this Report

Method/Matrix	Analyte	Certifications
EPA 6010B in Soil		
	Arsenic, total	NELAC,SIA1X,KS-NT
	Barium, total	NELAC,SIA1X,KS-NT
	Cadmium, total	NELAC,SIA1X,KS-NT
	Chromium, total	NELAC,SIA1X,KS-NT
	Lead, total	NELAC,SIA1X,KS-NT
	Selenium, total	NELAC,SIA1X,KS-NT
	Silver, total	NELAC,SIA1X,KS-NT
EPA 6020A in Water		
	Arsenic, dissolved	NELAC,SIA1X,KS-NT
	Barium, dissolved	NELAC,SIA1X,KS-NT
	Cadmium, dissolved	NELAC,SIA1X,KS-NT
	Chromium, dissolved	NELAC,SIA1X,KS-NT
	Lead, dissolved	NELAC,SIA1X,KS-NT
	Selenium, dissolved	NELAC,SIA1X,KS-NT
	Silver, dissolved	NELAC,SIA1X,KS-NT
EPA 7470A in Water		
	Mercury, dissolved	IA-NT,KS-NT,NELAC
EPA 7471A in Soil		
	Mercury, total	KS-NT,NELAC,SIA1X
EPA 8260B in Soil		
	Chloromethane	KS-NT,NELAC,SIA1X
	Vinyl Chloride	KS-NT,NELAC,SIA1X
	Bromomethane	KS-NT,NELAC,SIA1X
	Chloroethane	KS-NT,NELAC,SIA1X
	1,1-Dichloroethylene	KS-NT,NELAC,SIA1X
	Acetone	KS-NT,NELAC,SIA1X
	Carbon Disulfide	KS-NT,NELAC,SIA1X
	Methylene Chloride	KS-NT,NELAC,SIA1X
	trans-1,2-Dichloroethylene	KS-NT,NELAC,SIA1X
	Methyl-t-butyl Ether (MTBE)	KS-NT,NELAC,SIA1X
	1,1-Dichloroethane	KS-NT,NELAC,SIA1X
	cis-1,2-Dichloroethylene	SIA1X
	2-Butanone (MEK)	KS-NT,NELAC,SIA1X

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

	Chloroform	KS-NT,NELAC,SIA1X
	1,1,1-Trichloroethane	KS-NT,NELAC,SIA1X
	Carbon Tetrachloride	KS-NT,NELAC,SIA1X
	Benzene	KS-NT,NELAC,SIA1X
	1,2-Dichloroethane	KS-NT,NELAC,SIA1X
	Trichloroethylene	KS-NT,NELAC,SIA1X
	1,2-Dichloropropane	KS-NT,NELAC,SIA1X
	Bromodichloromethane	KS-NT,NELAC,SIA1X
	cis-1,3-Dichloropropene	KS-NT,NELAC,SIA1X
	4-Methyl-2-pentanone (MIBK)	KS-NT,NELAC,SIA1X
	Toluene	KS-NT,NELAC,SIA1X
	trans-1,3-Dichloropropene	KS-NT,NELAC,SIA1X
	1,1,2-Trichloroethane	KS-NT,NELAC,SIA1X
	Tetrachloroethylene	KS-NT,NELAC,SIA1X
	2-Hexanone (MBK)	KS-NT,NELAC,SIA1X
	Dibromochloromethane	KS-NT,NELAC,SIA1X
	Chlorobenzene	KS-NT,NELAC,SIA1X
	Ethylbenzene	KS-NT,NELAC,SIA1X
	Xylenes, total	KS-NT,NELAC,SIA1X
	Bromoform	KS-NT,NELAC,SIA1X
	1,1,2,2-Tetrachloroethane	KS-NT,NELAC,SIA1X
	1,3-Dichlorobenzene	KS-NT,NELAC,SIA1X
	1,4-Dichlorobenzene	KS-NT,NELAC,SIA1X
	1,2-Dichlorobenzene	KS-NT,NELAC,SIA1X
	Naphthalene	KS-NT,NELAC
EPA 8260B in Water		
	Chloromethane	KS-NT,NELAC,SIA1X
	Vinyl Chloride	KS-NT,NELAC,SIA1X
	Bromomethane	KS-NT,NELAC,SIA1X
	Chloroethane	KS-NT,NELAC,SIA1X
	1,1-Dichloroethylene	KS-NT,NELAC,SIA1X
	Acetone	KS-NT,NELAC,SIA1X
	Carbon Disulfide	KS-NT,NELAC,SIA1X
	Methylene Chloride	KS-NT,NELAC,SIA1X
	trans-1,2-Dichloroethylene	KS-NT,NELAC,SIA1X
	Methyl-t-butyl Ether (MTBE)	KS-NT,NELAC,SIA1X
	1,1-Dichloroethane	KS-NT,NELAC,SIA1X

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Allender Butzke Engineers, Inc.
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Urbandale, IA 50322

	cis-1,2-Dichloroethylene	SIA1X
	2-Butanone (MEK)	KS-NT,NELAC,SIA1X
	Chloroform	KS-NT,NELAC,SIA1X
	1,1,1-Trichloroethane	KS-NT,NELAC,SIA1X
	Carbon Tetrachloride	KS-NT,NELAC,SIA1X
	Benzene	KS-NT,NELAC,SIA1X
	1,2-Dichloroethane	KS-NT,NELAC,SIA1X
	Trichloroethylene	KS-NT,NELAC,SIA1X
	1,2-Dichloropropane	KS-NT,NELAC,SIA1X
	Bromodichloromethane	KS-NT,NELAC,SIA1X
	cis-1,3-Dichloropropene	KS-NT,NELAC,SIA1X
	4-Methyl-2-pentanone (MIBK)	KS-NT,NELAC,SIA1X
	Toluene	KS-NT,NELAC,SIA1X
	trans-1,3-Dichloropropene	KS-NT,NELAC,SIA1X
	1,1,2-Trichloroethane	KS-NT,NELAC,SIA1X
	Tetrachloroethylene	KS-NT,NELAC,SIA1X
	2-Hexanone (MBK)	KS-NT,NELAC,SIA1X
	Dibromochloromethane	KS-NT,NELAC,SIA1X
	Chlorobenzene	KS-NT,NELAC,SIA1X
	Ethylbenzene	KS-NT,NELAC,SIA1X
	Xylenes, total	KS-NT,NELAC,SIA1X
	Bromoform	KS-NT,NELAC,SIA1X
	1,1,2,2-Tetrachloroethane	KS-NT,NELAC,SIA1X
	1,3-Dichlorobenzene	KS-NT,NELAC,SIA1X
	1,4-Dichlorobenzene	KS-NT,NELAC,SIA1X
	1,2-Dichlorobenzene	KS-NT,NELAC,SIA1X
	Naphthalene	KS-NT,NELAC
EPA 8270C in Soil		
	N-Nitrosodimethylamine	SIA1X
	Phenol	KS-NT,NELAC,SIA1X
	Bis(2-Chloroethyl) Ether	SIA1X
	2-Chlorophenol	KS-NT,NELAC,SIA1X
	1,3-Dichlorobenzene	SIA1X
	1,4-Dichlorobenzene	KS-NT,NELAC,SIA1X
	Benzyl Alcohol	SIA1X
	1,2-Dichlorobenzene	SIA1X
	2-Methylphenol (o-Cresol)	KS-NT,NELAC,SIA1X

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Bis[2-Chloroisopropyl]ether	KS-NT,NELAC,SIA1X
n-Nitroso-di-n-propylamine	SIA1X
(3 & 4)-Methylphenol	KS-NT,NELAC,SIA1X
Hexachloroethane	KS-NT,NELAC,SIA1X
Nitrobenzene	KS-NT,NELAC,SIA1X
Isophorone	KS-NT,NELAC,SIA1X
2-Nitrophenol	KS-NT,NELAC,SIA1X
2,4-Dimethylphenol	KS-NT,NELAC,SIA1X
Bis (2-Chloroethoxy) Methane	KS-NT,NELAC,SIA1X
2,4-Dichlorophenol	KS-NT,NELAC,SIA1X
1,2,4-Trichlorobenzene	KS-NT,NELAC,SIA1X
Naphthalene	KS-NT,NELAC,SIA1X
4-Chloroaniline	KS-NT,NELAC,SIA1X
Hexachlorobutadiene	KS-NT,NELAC
4-Chloro-3-methylphenol	KS-NT,NELAC,SIA1X
2-Methylnaphthalene	KS-NT,NELAC,SIA1X
Hexachlorocyclopentadiene	KS-NT,NELAC,SIA1X
2,4,6-Trichlorophenol	KS-NT,NELAC,SIA1X
2,4,5-Trichlorophenol	KS-NT,NELAC,SIA1X
2-Chloronaphthalene	KS-NT,NELAC,SIA1X
2-Nitroaniline	KS-NT,NELAC,SIA1X
Dimethylphthalate	KS-NT,NELAC,SIA1X
Acenaphthylene	KS-NT,NELAC,SIA1X
2,6-Dinitrotoluene	KS-NT,NELAC,SIA1X
3-Nitroaniline	SIA1X
Acenaphthene	KS-NT,NELAC,SIA1X
2,4-Dinitrophenol	KS-NT,NELAC,SIA1X
Dibenzofuran	KS-NT,NELAC,SIA1X
2,4-Dinitrotoluene	KS-NT,NELAC,SIA1X
4-Nitrophenol	KS-NT,NELAC,SIA1X
Diethyl Phthalate	KS-NT,NELAC,SIA1X
Fluorene	KS-NT,NELAC,SIA1X
4-Chlorophenyl Phenyl Ether	KS-NT,NELAC,SIA1X
4-Nitroaniline	SIA1X
4,6-Dinitro-2-methylphenol	KS-NT,NELAC,SIA1X
N-Nitrosodiphenylamine	KS-NT,NELAC
4-Bromophenyl Phenyl Ether	KS-NT,NELAC,SIA1X

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Allender Butzke Engineers, Inc.
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Urbandale, IA 50322

	Hexachlorobenzene	KS-NT,NELAC,SIA1X
	Pentachlorophenol	KS-NT,NELAC
	Phenanthrene	KS-NT,NELAC,SIA1X
	Anthracene	KS-NT,NELAC,SIA1X
	Di-n-butyl Phthalate	KS-NT,NELAC,SIA1X
	Fluoranthene	KS-NT,NELAC,SIA1X
	Pyrene	KS-NT,NELAC,SIA1X
	Butyl Benzyl Phthalate	KS-NT,NELAC,SIA1X
	Benzo(a)anthracene	KS-NT,NELAC,SIA1X
	Chrysene	KS-NT,NELAC,SIA1X
	Bis(2-Ethylhexyl) Phthalate	KS-NT,NELAC,SIA1X
	Di-n-octyl Phthalate	KS-NT,NELAC,SIA1X
	Indeno(1,2,3-cd)Pyrene	KS-NT,NELAC,SIA1X
	3,3´-Dichlorobenzidine	KS-NT,NELAC,SIA1X
	Benzo(b)Fluoranthene	KS-NT,NELAC,SIA1X
	Benzo(k)Fluoranthene	KS-NT,NELAC,SIA1X
	Benzo(a)Pyrene	KS-NT,NELAC,SIA1X
	Dibenzo(a,h)anthracene	KS-NT,NELAC,SIA1X
	Benzo(g,h,i)perylene	KS-NT,NELAC,SIA1X
EPA 8270C in Water		
	N-Nitrosodimethylamine	SIA1X
	Phenol	KS-NT,NELAC,SIA1X
	Bis(2-Chloroethyl) Ether	SIA1X
	2-Chlorophenol	KS-NT,NELAC,SIA1X
	1,3-Dichlorobenzene	SIA1X
	1,4-Dichlorobenzene	KS-NT,NELAC,SIA1X
	Benzyl Alcohol	SIA1X
	1,2-Dichlorobenzene	SIA1X
	2-Methylphenol (o-Cresol)	KS-NT,NELAC,SIA1X
	Bis[2-Chloroisopropyl]ether	KS-NT,NELAC,SIA1X
	n-Nitroso-di-n-propylamine	SIA1X
	(3 & 4)-Methylphenol	KS-NT,NELAC,SIA1X
	Hexachloroethane	KS-NT,NELAC,SIA1X
	Nitrobenzene	KS-NT,NELAC,SIA1X
	Isophorone	KS-NT,NELAC,SIA1X
	2-Nitrophenol	KS-NT,NELAC,SIA1X
	2,4-Dimethylphenol	KS-NT,NELAC,SIA1X

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

Bis (2-Chloroethoxy) Methane	KS-NT,NELAC,SIA1X
2,4-Dichlorophenol	KS-NT,NELAC,SIA1X
1,2,4-Trichlorobenzene	KS-NT,NELAC,SIA1X
Naphthalene	KS-NT,NELAC,SIA1X
4-Chloroaniline	KS-NT,NELAC,SIA1X
Hexachlorobutadiene	KS-NT,NELAC
4-Chloro-3-methylphenol	KS-NT,NELAC,SIA1X
2-Methylnaphthalene	KS-NT,NELAC,SIA1X
Hexachlorocyclopentadiene	KS-NT,NELAC,SIA1X
2,4,6-Trichlorophenol	KS-NT,NELAC,SIA1X
2,4,5-Trichlorophenol	KS-NT,NELAC,SIA1X
2-Chloronaphthalene	KS-NT,NELAC,SIA1X
2-Nitroaniline	KS-NT,NELAC,SIA1X
Dimethylphthalate	KS-NT,NELAC,SIA1X
Acenaphthylene	KS-NT,NELAC,SIA1X
2,6-Dinitrotoluene	KS-NT,NELAC,SIA1X
3-Nitroaniline	SIA1X
Acenaphthene	KS-NT,NELAC,SIA1X
2,4-Dinitrophenol	KS-NT,NELAC,SIA1X
Dibenzofuran	KS-NT,NELAC,SIA1X
2,4-Dinitrotoluene	KS-NT,NELAC,SIA1X
4-Nitrophenol	KS-NT,NELAC,SIA1X
Diethyl Phthalate	KS-NT,NELAC,SIA1X
Fluorene	KS-NT,NELAC,SIA1X
4-Chlorophenyl Phenyl Ether	KS-NT,NELAC,SIA1X
4-Nitroaniline	SIA1X
4,6-Dinitro-2-methylphenol	KS-NT,NELAC,SIA1X
N-Nitrosodiphenylamine	KS-NT,NELAC
4-Bromophenyl Phenyl Ether	KS-NT,NELAC,SIA1X
Hexachlorobenzene	KS-NT,NELAC,SIA1X
Pentachlorophenol	KS-NT,NELAC
Phenanthrene	KS-NT,NELAC,SIA1X
Anthracene	KS-NT,NELAC,SIA1X
Di-n-butyl Phthalate	KS-NT,NELAC,SIA1X
Fluoranthene	KS-NT,NELAC,SIA1X
Pyrene	KS-NT,NELAC,SIA1X
Butyl Benzyl Phthalate	KS-NT,NELAC,SIA1X

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	Benzo(a)anthracene	KS-NT,NELAC,SIA1X
	Chrysene	KS-NT,NELAC,SIA1X
	Bis(2-Ethylhexyl) Phthalate	KS-NT,NELAC,SIA1X
	Di-n-octyl Phthalate	KS-NT,NELAC,SIA1X
	Indeno(1,2,3-cd)Pyrene	KS-NT,NELAC,SIA1X
	3,3´-Dichlorobenzidine	KS-NT,NELAC,SIA1X
	Benzo(b)Fluoranthene	KS-NT,NELAC,SIA1X
	Benzo(k)Fluoranthene	KS-NT,NELAC,SIA1X
	Benzo(a)Pyrene	KS-NT,NELAC,SIA1X
	Dibenzo(a,h)anthracene	KS-NT,NELAC,SIA1X
	Benzo(g,h,i)perylene	KS-NT,NELAC,SIA1X
Iowa OA-2 in Soil		
	Total Extractable Hydrocarbons	SIA1X
Iowa OA-2 in Water		
	Total Extractable Hydrocarbons	SIA1X
SM 2540 G in Sludge		
	% Solids	SIA1X

Code	Description	Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2013
KS-NT	Kansas Department of Health and Environment	E-10287	10/30/2013
MO-KC	Missouri Department of Natural Resources	140	04/30/2013
NELAC	New Jersey Department of Environmental Protection	IA001	06/30/2013
SIA1X	Iowa Department of Natural Resources	95	02/01/2014

Notes and Definitions

D-06	The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
QM-07	The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR-06	The reference standard was outside of established control limits.
QS-02	The spike recovery for this QC sample exceeded established acceptance limits. However, all samples were below the reporting and/or regulatory limit so the data is acceptable.
S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

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Allender Butzke Engineers, Inc.
3660 109th Street
Urbandale, IA 50322

Work Order: 1C31317

End of Report

Sue Thompson

Keystone Laboratories, Inc.

Sue Thompson
Project Manager II

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

April 15, 2013 Service Request No: E1300373

Sue Thompson
Keystone Laboratories, Incorporated
600 East 17th Street South
Newton, IA 50208

Laboratory Results for: 8290 Full List Dioxins Furans Analysis/1C31317

Dear Sue:

Enclosed are the results of the sample(s) submitted to our laboratory on March 26, 2013. For your reference, these analyses have been assigned our service request number **E1300373**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the final complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the TNI 2009 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2959. You may also contact me via email at Arthi.Kodur@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Arthi Kodur
Project Manager

For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com.

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Certificate of Analysis

ALS Environmental - Houston HRMS
19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS ENVIRONMENTAL

Client:	Keystone Laboratories, Incorporated	**Service Request No.:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Received:**	3/26/13
Sample Matrix:	Water		

ALS ENVIRONMENTAL NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Three water samples were received for analysis at ALS Environmental on 3/26/13.

The following discrepancies were noted upon initial sample inspection: no custody seals on cooler. The exceptions are also noted on the cooler receipt and preservation form included in this data package.

The samples were received at 4°C in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

MS/MSD

EQ1300177: Laboratory Control Spike (LCS) sample was analyzed and reported in addition to an MS/MSD for this extraction batch. The batch quality control criteria were met. The batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report.

MRL

Sample results are reported to the Method Reporting Limit (MRL) established by the analytical method. Results that were not detected at concentrations greater than the MRL are reported as "ND" and are flagged appropriately.

The TEQ Summary results for each sample have been calculated by ALS ENVIRONMENTAL/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: Keystone Laboratories, Incorporated **Service Request:** E1300373
Project: 8290 Full List Dioxins Furans Analysis/1C31317

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E1300373-001	1C31317-09	3/20/13	15:14
E1300373-002	1C31317-11	3/20/13	17:00
E1300373-003	1C31317-14	3/20/13	09:30

Laboratory Certifications
2012-2013

STATE/PROGRAM	AGENCY	CERT#	EXP DATE	CERTIFIED?
ARIZONA	AZ-DHS	AZ0725	05/27/13	Yes
ARKANSAS	ADEQ	12-035-0	06/16/13	Yes
CALIFORNIA	CA-ELAP	2452	02/28/15	Yes
DOD ELAP	A2LA	2897.01	11/30/13	Yes
FLORIDA/NELAP	FL-DOHS	E87611	06/30/13	Yes
HAWAII	HI-DOH	N/A	06/30/13	Yes
ILLINOIS/NELAP	IL-EPA	003004	10/06/13	Yes
ISO 17025	A2LA	2897.01	11/30/13	Yes
KANSAS	KS-DHE	E-10406	01/31/14	Yes
LOUISIANA/NELAP	LELAP	03048	06/30/13	Yes
LOUISIANA/NELAP	LDHH	LA120014	12/31/13	Yes
MAINE	ME-DOHS	2012017	06/05/13	Yes
MARYLAND	MDE	343	06/30/13	Yes
MICHIGAN	MIDEQ	9971	06/30/13	Yes
MINNESOTA	MDH	048-999-427	12/31/13	Yes
NEVADA	NDEP	TX014112013A	07/31/13	Yes
NEW JERSEY	NJDEP	TX008	06/30/13	Yes
NEW MEXICO	NMED-DWB	N/A	06/30/13	Yes
NEW YORK/NELAP	NY-DOH	11707	04/01/13	Yes
OKLAHOMA	OKDEQ	2012-133	08/31/13	Yes
OREGON/NELAP	ORELAP	TX200002-009	03/24/14	Yes
PENNSYLVANIA/NELAP	PLAP	004	06/30/13	Yes
SOIL IMPORT PERMIT	USDA	P330-12-00002	01/13/15	Yes
TENNESSEE	TNDEC	TN04016	06/30/13	Yes
TEXAS/NELAP	TCEQ	T104704216-12-3	06/30/13	Yes
UTAH/NELAP	UTELCP	TX014112013-2	06/30/13	Yes
WASHINGTON/NELAP	WA-Ecology	C819-12	11/14/13	Yes
WEST VIRGINIA	WVDEP	347	06/30/13	Yes

Abbreviations, Acronyms & Definitions

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

Data Qualifier Flags – Dioxin/Furans

- **B** Indicates the associated analyte is found in the method blank, as well as in the sample.

- **C** Confirmation of the TCDF compound: When 2378-TCDF is detected on the DB-5 column, confirmation analyses are performed on a second column (DB-225). The results from both the DB-5 column and the DB-225 column are included in this data package. The results from the DB-225 analyses should be used to evaluate the 2378-TCDF in the samples. The confirmed result should be used in determining the TEQ value for TCDF.

- **E** Indicates an estimated value – used when the analyte concentration exceeds the upper end of the linear calibration range.

- **J** Indicates an estimated value – used when the analyte concentration is below the method reporting limit (MRL) and above the estimated detection limit (EDL).

- **K** EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

- **U** Indicates the compound was analyzed and not detected

- **Y** Samples that had recoveries of labeled standards outside the acceptance limits are flagged with 'Y'. In all cases, the signal-to-noise ratios are greater than 10:1, making these data acceptable.

- **ND** Indicates concentration is reported as 'Not Detected.'

- **S** Peak is saturated; data not reportable.

- **Q** Lock-mass interference by ether compounds.

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E1300373 | (DB-5) | DB-225 | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
04/11/13	JC	-001, -002, -003

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
04/15/	LL	001 – 003

Analytical Results

ALS Environmental - Houston HRMS
19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 1514
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-09	**Units:**	pg/L
Lab Code:	E1300373-001	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/10/13 2140
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	648mL	**Instrument Name:**	E-HRMS-02
		GC Column:	DB-5
Data File Name:	U233540	**Blank File Name:**	P163096
ICAL Date:	04/04/13	**Cal Ver. File Name:**	U233533

Native Analyte Results

Analyte Name	Result	Q	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	7.72			1
1,2,3,7,8-PeCDD	ND	U	38.6			1
1,2,3,4,7,8-HxCDD	ND	U	38.6			1
1,2,3,6,7,8-HxCDD	ND	U	38.6			1
1,2,3,7,8,9-HxCDD	ND	U	38.6			1
1,2,3,4,6,7,8-HpCDD	ND	U	38.6			1
OCDD	ND	U	77.2			1
2,3,7,8-TCDF	ND	U	7.72			1
1,2,3,7,8-PeCDF	ND	U	38.6			1
2,3,4,7,8-PeCDF	ND	U	38.6			1
1,2,3,4,7,8-HxCDF	ND	U	38.6			1
1,2,3,6,7,8-HxCDF	ND	U	38.6			1
1,2,3,7,8,9-HxCDF	ND	U	38.6			1
2,3,4,6,7,8-HxCDF	ND	U	38.6			1
1,2,3,4,6,7,8-HpCDF	ND	U	38.6			1
1,2,3,4,7,8,9-HpCDF	ND	U	38.6			1
OCDF	ND	U	77.2			1
Total Tetra-Dioxins	ND	U	7.72			1
Total Penta-Dioxins	ND	U	38.6			1
Total Hexa-Dioxins	ND	U	38.6			1
Total Hepta-Dioxins	ND	U	38.6			1
Total Tetra-Furans	ND	U	7.72			1
Total Penta-Furans	ND	U	38.6			1
Total Hexa-Furans	ND	U	38.6			1
Total Hepta-Furans	ND	U	38.6			1

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 1514
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-09	**Units:**	Percent
Lab Code:	E1300373-001	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/10/13 2140
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	648mL	**Instrument Name:**	E-HRMS-02
		GC Column:	DB-5
Data File Name:	U233540	**Blank File Name:**	P163096
ICAL Date:	04/04/13	**Cal Ver. File Name:**	U233533

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	986.271	49		40-135	0.79	1.007
13C-1,2,3,7,8-PeCDD	2000	1090.437	55		40-135	1.56	1.167
13C-1,2,3,4,7,8-HxCDD	2000	1032.181	52		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1060.337	53		40-135	1.24	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	984.910	49		40-135	1.05	1.069
13C-OCDD	4000	1876.123	47		40-135	0.90	1.152
13C-2,3,7,8-TCDF	2000	856.019	43		40-135	0.79	0.978
13C-1,2,3,7,8-PeCDF	2000	988.182	49		40-135	1.57	1.129
13C-2,3,4,7,8-PeCDF	2000	963.527	48		40-135	1.56	1.154
13C-1,2,3,4,7,8-HxCDF	2000	937.528	47		40-135	0.52	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1038.917	52		40-135	0.53	0.974
13C-1,2,3,7,8,9-HxCDF	2000	976.840	49		40-135	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1121.265	56		40-135	0.53	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	900.285	45		40-135	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1225.199	61		40-135	0.45	1.081
37Cl-2,3,7,8-TCDD	800	425.131	53		40-135	NA	1.008

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 1514
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-09	**Units:**	pg/L
Lab Code:	E1300373-001	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method Sep Funnel/Jar

Toxicity Equivalency Quotient

Analyte Name	Result	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	7.72	1	1	
1,2,3,7,8-PeCDD	ND	38.6	1	1	
1,2,3,4,7,8-HxCDD	ND	38.6	1	0.1	
1,2,3,6,7,8-HxCDD	ND	38.6	1	0.1	
1,2,3,7,8,9-HxCDD	ND	38.6	1	0.1	
1,2,3,4,6,7,8-HpCDD	ND	38.6	1	0.01	
OCDD	ND	77.2	1	0.0003	
2,3,7,8-TCDF	ND	7.72	1	0.1	
1,2,3,7,8-PeCDF	ND	38.6	1	0.03	
2,3,4,7,8-PeCDF	ND	38.6	1	0.3	
1,2,3,4,7,8-HxCDF	ND	38.6	1	0.1	
1,2,3,6,7,8-HxCDF	ND	38.6	1	0.1	
1,2,3,7,8,9-HxCDF	ND	38.6	1	0.1	
2,3,4,6,7,8-HxCDF	ND	38.6	1	0.1	
1,2,3,4,6,7,8-HpCDF	ND	38.6	1	0.01	
1,2,3,4,7,8,9-HpCDF	ND	38.6	1	0.01	
OCDF	ND	77.2	1	0.0003	
	Total TEQ				0.00

2005 WHO TEFs, ND = 0

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Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 1700
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-11	**Units:**	pg/L
Lab Code:	E1300373-002	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/10/13 2228
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	942mL	**Instrument Name:**	E-HRMS-02
		GC Column:	DB-5
Data File Name:	U233541	**Blank File Name:**	P163096
ICAL Date:	04/04/13	**Cal Ver. File Name:**	U233533

Native Analyte Results

Analyte Name	Result	Q	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	5.31			1
1,2,3,7,8-PeCDD	ND	U	26.5			1
1,2,3,4,7,8-HxCDD	ND	U	26.5			1
1,2,3,6,7,8-HxCDD	ND	U	26.5			1
1,2,3,7,8,9-HxCDD	ND	U	26.5			1
1,2,3,4,6,7,8-HpCDD	ND	U	26.5			1
OCDD	ND	U	53.1			1
2,3,7,8-TCDF	ND	U	5.31			1
1,2,3,7,8-PeCDF	ND	U	26.5			1
2,3,4,7,8-PeCDF	ND	U	26.5			1
1,2,3,4,7,8-HxCDF	ND	U	26.5			1
1,2,3,6,7,8-HxCDF	ND	U	26.5			1
1,2,3,7,8,9-HxCDF	ND	U	26.5			1
2,3,4,6,7,8-HxCDF	ND	U	26.5			1
1,2,3,4,6,7,8-HpCDF	ND	U	26.5			1
1,2,3,4,7,8,9-HpCDF	ND	U	26.5			1
OCDF	ND	U	53.1			1
Total Tetra-Dioxins	ND	U	5.31			1
Total Penta-Dioxins	ND	U	26.5			1
Total Hexa-Dioxins	ND	U	26.5			1
Total Hepta-Dioxins	ND	U	26.5			1
Total Tetra-Furans	ND	U	5.31			1
Total Penta-Furans	ND	U	26.5			1
Total Hexa-Furans	ND	U	26.5			1
Total Hepta-Furans	ND	U	26.5			1

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Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 1700
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-11	**Units:**	Percent
Lab Code:	E1300373-002	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/10/13 2228
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	942mL	**Instrument Name:**	E-HRMS-02
		GC Column:	DB-5
Data File Name:	U233541	**Blank File Name:**	P163096
ICAL Date:	04/04/13	**Cal Ver. File Name:**	U233533

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1292.758	65		40-135	0.79	1.008
13C-1,2,3,7,8-PeCDD	2000	1755.255	88		40-135	1.56	1.167
13C-1,2,3,4,7,8-HxCDD	2000	1426.757	71		40-135	1.24	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1509.579	75		40-135	1.26	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1383.295	69		40-135	1.05	1.069
13C-OCDD	4000	2445.379	61		40-135	0.90	1.152
13C-2,3,7,8-TCDF	2000	1125.290	56		40-135	0.78	0.978
13C-1,2,3,7,8-PeCDF	2000	1349.898	67		40-135	1.56	1.130
13C-2,3,4,7,8-PeCDF	2000	1344.997	67		40-135	1.56	1.155
13C-1,2,3,4,7,8-HxCDF	2000	1283.000	64		40-135	0.53	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1444.689	72		40-135	0.53	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1278.459	64		40-135	0.53	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1591.671	80		40-135	0.54	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1339.617	67		40-135	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1682.804	84		40-135	0.45	1.080
37Cl-2,3,7,8-TCDD	800	521.241	65		40-135	NA	1.008

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 1700
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-11	**Units:**	pg/L
Lab Code:	E1300373-002	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method Sep Funnel/Jar

Toxicity Equivalency Quotient

Analyte Name	Result	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	5.31	1	1	
1,2,3,7,8-PeCDD	ND	26.5	1	1	
1,2,3,4,7,8-HxCDD	ND	26.5	1	0.1	
1,2,3,6,7,8-HxCDD	ND	26.5	1	0.1	
1,2,3,7,8,9-HxCDD	ND	26.5	1	0.1	
1,2,3,4,6,7,8-HpCDD	ND	26.5	1	0.01	
OCDD	ND	53.1	1	0.0003	
2,3,7,8-TCDF	ND	5.31	1	0.1	
1,2,3,7,8-PeCDF	ND	26.5	1	0.03	
2,3,4,7,8-PeCDF	ND	26.5	1	0.3	
1,2,3,4,7,8-HxCDF	ND	26.5	1	0.1	
1,2,3,6,7,8-HxCDF	ND	26.5	1	0.1	
1,2,3,7,8,9-HxCDF	ND	26.5	1	0.1	
2,3,4,6,7,8-HxCDF	ND	26.5	1	0.1	
1,2,3,4,6,7,8-HpCDF	ND	26.5	1	0.01	
1,2,3,4,7,8,9-HpCDF	ND	26.5	1	0.01	
OCDF	ND	53.1	1	0.0003	
	Total TEQ				0.00

2005 WHO TEFs, ND = 0

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 0930
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-14	**Units:**	pg/L
Lab Code:	E1300373-003	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/10/13 2316
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	751mL	**Instrument Name:**	E-HRMS-02
		GC Column:	DB-5
Data File Name:	U233542	**Blank File Name:**	P163096
ICAL Date:	04/04/13	**Cal Ver. File Name:**	U233533

Native Analyte Results

Analyte Name	Result	Q	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	6.66			1
1,2,3,7,8-PeCDD	ND	U	33.3			1
1,2,3,4,7,8-HxCDD	ND	U	33.3			1
1,2,3,6,7,8-HxCDD	ND	U	33.3			1
1,2,3,7,8,9-HxCDD	ND	U	33.3			1
1,2,3,4,6,7,8-HpCDD	ND	U	33.3			1
OCDD	ND	U	66.6			1
2,3,7,8-TCDF	ND	U	6.66			1
1,2,3,7,8-PeCDF	ND	U	33.3			1
2,3,4,7,8-PeCDF	ND	U	33.3			1
1,2,3,4,7,8-HxCDF	ND	U	33.3			1
1,2,3,6,7,8-HxCDF	ND	U	33.3			1
1,2,3,7,8,9-HxCDF	ND	U	33.3			1
2,3,4,6,7,8-HxCDF	ND	U	33.3			1
1,2,3,4,6,7,8-HpCDF	ND	U	33.3			1
1,2,3,4,7,8,9-HpCDF	ND	U	33.3			1
OCDF	ND	U	66.6			1
Total Tetra-Dioxins	ND	U	6.66			1
Total Penta-Dioxins	ND	U	33.3			1
Total Hexa-Dioxins	ND	U	33.3			1
Total Hepta-Dioxins	ND	U	33.3			1
Total Tetra-Furans	ND	U	6.66			1
Total Penta-Furans	ND	U	33.3			1
Total Hexa-Furans	ND	U	33.3			1
Total Hepta-Furans	ND	U	33.3			1

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 0930
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-14	**Units:**	Percent
Lab Code:	E1300373-003	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/10/13 2316
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	751mL	**Instrument Name:**	E-HRMS-02
		GC Column:	DB-5
Data File Name:	U233542	**Blank File Name:**	P163096
ICAL Date:	04/04/13	**Cal Ver. File Name:**	U233533

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1190.023	60		40-135	0.78	1.007
13C-1,2,3,7,8-PeCDD	2000	1524.087	76		40-135	1.58	1.167
13C-1,2,3,4,7,8-HxCDD	2000	1271.695	64		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1307.805	65		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1210.599	61		40-135	1.04	1.069
13C-OCDD	4000	2167.054	54		40-135	0.91	1.152
13C-2,3,7,8-TCDF	2000	1020.227	51		40-135	0.79	0.978
13C-1,2,3,7,8-PeCDF	2000	1190.023	60		40-135	1.56	1.129
13C-2,3,4,7,8-PeCDF	2000	1174.426	59		40-135	1.56	1.154
13C-1,2,3,4,7,8-HxCDF	2000	1112.621	56		40-135	0.53	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1234.364	62		40-135	0.54	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1210.283	61		40-135	0.51	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1393.962	70		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1140.960	57		40-135	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1502.340	75		40-135	0.45	1.081
37Cl-2,3,7,8-TCDD	800	497.749	62		40-135	NA	1.008

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	3/20/13 0930
Sample Matrix:	Water	**Date Received:**	3/26/13
Sample Name:	1C31317-14	**Units:**	pg/L
Lab Code:	E1300373-003	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method Sep Funnel/Jar

Toxicity Equivalency Quotient

Analyte Name	Result	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	6.66	1	1	
1,2,3,7,8-PeCDD	ND	33.3	1	1	
1,2,3,4,7,8-HxCDD	ND	33.3	1	0.1	
1,2,3,6,7,8-HxCDD	ND	33.3	1	0.1	
1,2,3,7,8,9-HxCDD	ND	33.3	1	0.1	
1,2,3,4,6,7,8-HpCDD	ND	33.3	1	0.01	
OCDD	ND	66.6	1	0.0003	
2,3,7,8-TCDF	ND	6.66	1	0.1	
1,2,3,7,8-PeCDF	ND	33.3	1	0.03	
2,3,4,7,8-PeCDF	ND	33.3	1	0.3	
1,2,3,4,7,8-HxCDF	ND	33.3	1	0.1	
1,2,3,6,7,8-HxCDF	ND	33.3	1	0.1	
1,2,3,7,8,9-HxCDF	ND	33.3	1	0.1	
2,3,4,6,7,8-HxCDF	ND	33.3	1	0.1	
1,2,3,4,6,7,8-HpCDF	ND	33.3	1	0.01	
1,2,3,4,7,8,9-HpCDF	ND	33.3	1	0.01	
OCDF	ND	66.6	1	0.0003	
	Total TEQ				0.00

2005 WHO TEFs, ND = 0

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	pg/L
Lab Code:	EQ1300177-01	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/1/13 1715
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	P163096	**Blank File Name:**	P163096
ICAL Date:	10/29/12	**Cal Ver. File Name:**	P163093

Native Analyte Results

Analyte Name	Result	Q	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	5.00			1
1,2,3,7,8-PeCDD	ND	U	25.0			1
1,2,3,4,7,8-HxCDD	ND	U	25.0			1
1,2,3,6,7,8-HxCDD	ND	U	25.0			1
1,2,3,7,8,9-HxCDD	ND	U	25.0			1
1,2,3,4,6,7,8-HpCDD	ND	U	25.0			1
OCDD	ND	U	50.0			1
2,3,7,8-TCDF	ND	U	5.00			1
1,2,3,7,8-PeCDF	ND	U	25.0			1
2,3,4,7,8-PeCDF	ND	U	25.0			1
1,2,3,4,7,8-HxCDF	ND	U	25.0			1
1,2,3,6,7,8-HxCDF	ND	U	25.0			1
1,2,3,7,8,9-HxCDF	ND	U	25.0			1
2,3,4,6,7,8-HxCDF	ND	U	25.0			1
1,2,3,4,6,7,8-HpCDF	ND	U	25.0			1
1,2,3,4,7,8,9-HpCDF	ND	U	25.0			1
OCDF	ND	U	50.0			1
Total Tetra-Dioxins	ND	U	5.00			1
Total Penta-Dioxins	ND	U	25.0			1
Total Hexa-Dioxins	ND	U	25.0			1
Total Hepta-Dioxins	ND	U	25.0			1
Total Tetra-Furans	ND	U	5.00			1
Total Penta-Furans	ND	U	25.0			1
Total Hexa-Furans	ND	U	25.0			1
Total Hepta-Furans	ND	U	25.0			1

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ1300177-01	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/1/13 1715
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	P163096	**Blank File Name:**	P163096
ICAL Date:	10/29/12	**Cal Ver. File Name:**	P163093

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1292.964	65		40-135	0.79	1.007
13C-1,2,3,7,8-PeCDD	2000	1684.016	84		40-135	1.60	1.155
13C-1,2,3,4,7,8-HxCDD	2000	1383.636	69		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1154.017	58		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1148.186	57		40-135	1.06	1.069
13C-OCDD	4000	1691.668	42		40-135	0.87	1.152
13C-2,3,7,8-TCDF	2000	1235.307	62		40-135	0.77	0.980
13C-1,2,3,7,8-PeCDF	2000	1348.799	67		40-135	1.50	1.119
13C-2,3,4,7,8-PeCDF	2000	1409.360	70		40-135	1.58	1.143
13C-1,2,3,4,7,8-HxCDF	2000	1194.694	60		40-135	0.52	0.973
13C-1,2,3,6,7,8-HxCDF	2000	1410.319	71		40-135	0.52	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1329.912	66		40-135	0.49	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1587.875	79		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1176.524	59		40-135	0.44	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1465.630	73		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	737.964	92		40-135	NA	1.007

Accuracy and Precision

ALS Environmental - Houston HRMS
19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS ENVIRONMENTAL

QA/QC Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Analyzed:**	4/ 4/13
Sample Matrix:	Water		

Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Units:**	pg/L
Prep Method:	Method Sep Funnel/Jar	**Basis:**	NA
		Extraction Lot:	179549

Lab Control Sample
EQ1300177-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
2,3,7,8-TCDD	224	200	112	67 - 158
1,2,3,7,8-PeCDD	989	1000	99	70 - 142
1,2,3,4,7,8-HxCDD	975	1000	97	70 - 164
1,2,3,6,7,8-HxCDD	1190	1000	119	76 - 134
1,2,3,7,8,9-HxCDD	1080	1000	108	64 - 162
1,2,3,4,6,7,8-HpCDD	1100	1000	110	70 - 140
OCDD	2310	2000	115	78 - 144
2,3,7,8-TCDF	234	200	117	75 - 158
1,2,3,7,8-PeCDF	1160	1000	116	80 - 134
2,3,4,7,8-PeCDF	1010	1000	101	68 - 160
1,2,3,4,7,8-HxCDF	1170	1000	117	72 - 134
1,2,3,6,7,8-HxCDF	1020	1000	102	84 - 130
1,2,3,7,8,9-HxCDF	1090	1000	109	78 - 130
2,3,4,6,7,8-HxCDF	904	1000	90	70 - 156
1,2,3,4,6,7,8-HpCDF	993	1000	99	82 - 122
1,2,3,4,7,8,9-HpCDF	874	1000	87	78 - 138
OCDF	2600	2000	130	63 - 170

Results flagged with an asterisk (*) indicate values outside control criteria.

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

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	pg/L
Lab Code:	EQ1300177-02	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/4/13 1341
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	P163141	**Blank File Name:**	P163096
ICAL Date:	10/29/12	**Cal Ver. File Name:**	P163136

Native Analyte Results

Analyte Name	Result	Q	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**224**		5.00	0.84	1.000	1
1,2,3,7,8-PeCDD	**989**		25.0	1.56	1.000	1
1,2,3,4,7,8-HxCDD	**975**		25.0	1.27	1.000	1
1,2,3,6,7,8-HxCDD	**1190**		25.0	1.23	1.000	1
1,2,3,7,8,9-HxCDD	**1080**		25.0	1.31	1.008	1
1,2,3,4,6,7,8-HpCDD	**1100**		25.0	1.03	1.000	1
OCDD	**2310**		50.0	0.91	1.000	1
2,3,7,8-TCDF	**234**		5.00	0.74	1.001	1
1,2,3,7,8-PeCDF	**1160**		25.0	1.53	1.000	1
2,3,4,7,8-PeCDF	**1010**		25.0	1.55	1.000	1
1,2,3,4,7,8-HxCDF	**1170**		25.0	1.22	1.000	1
1,2,3,6,7,8-HxCDF	**1020**		25.0	1.23	1.000	1
1,2,3,7,8,9-HxCDF	**1090**		25.0	1.23	1.000	1
2,3,4,6,7,8-HxCDF	**904**		25.0	1.25	1.000	1
1,2,3,4,6,7,8-HpCDF	**993**		25.0	1.02	1.000	1
1,2,3,4,7,8,9-HpCDF	**874**		25.0	1.04	1.000	1
OCDF	**2600**		50.0	0.91	1.005	1
Total Tetra-Dioxins	**224**		5.00	0.84		1
Total Penta-Dioxins	**989**		25.0	1.56		1
Total Hexa-Dioxins	**3240**		25.0	1.27		1
Total Hepta-Dioxins	**1100**		25.0	1.03		1
Total Tetra-Furans	**235**		5.00	0.69		1
Total Penta-Furans	**2180**		25.0	1.55		1
Total Hexa-Furans	**4190**		25.0	1.22		1
Total Hepta-Furans	**1880**		25.0	1.02		1

ALS ENVIRONMENTAL

Analytical Report

Client:	Keystone Laboratories, Incorporated	**Service Request:**	E1300373
Project:	8290 Full List Dioxins Furans Analysis/1C31317	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1300177-02	**Basis:**	NA

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	4/4/13 1341
Prep Method:	Method Sep Funnel/Jar	**Date Extracted:**	3/27/13
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	P163141	**Blank File Name:**	P163096
ICAL Date:	10/29/12	**Cal Ver. File Name:**	P163136

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1293.659	65		40-135	0.80	1.007
13C-1,2,3,7,8-PeCDD	2000	1731.356	87		40-135	1.61	1.155
13C-1,2,3,4,7,8-HxCDD	2000	1365.700	68		40-135	1.24	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1277.742	64		40-135	1.24	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1304.618	65		40-135	1.05	1.068
13C-OCDD	4000	2014.092	50		40-135	0.89	1.150
13C-2,3,7,8-TCDF	2000	1166.705	58		40-135	0.77	0.981
13C-1,2,3,7,8-PeCDF	2000	1371.402	69		40-135	1.56	1.120
13C-2,3,4,7,8-PeCDF	2000	1312.036	66		40-135	1.53	1.144
13C-1,2,3,4,7,8-HxCDF	2000	1194.619	60		40-135	0.50	0.973
13C-1,2,3,6,7,8-HxCDF	2000	1401.629	70		40-135	0.51	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1351.571	68		40-135	0.50	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1517.993	76		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1308.051	65		40-135	0.43	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1771.359	89		40-135	0.42	1.079
37Cl-2,3,7,8-TCDD	800	650.649	81		40-135	NA	1.007

Chain of Custody

ALS Environmental - Houston HRMS
19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

SUBCONTRACT ORDER

Keystone Laboratories, Inc. - Newton

1C31317

SENDING LABORATORY:

Keystone Laboratories, Inc. - Newton
600 East 17th Street South
Newton, IA 50208
Phone: 641-792-8451
Fax: 641-792-7989
Project Manager: Sue Thompson

RECEIVING LABORATORY:

ALS Environmental - TX
19408 Park Row
Houston, TX 77084
Phone :(281) 530-5656
Fax: -

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 1C31317-09	**Water**	**Sampled:03/20/13 15:14**		
dioxins-8290	04/04/13 17:00	03/27/13 15:14		
Containers Supplied:				
GA-1 L Amber (Glass) (G GA-1 L Amber (Glass) (H				
Sample ID: 1C31317-11	**Water**	**Sampled:03/20/13 17:00**		
dioxins-8290	04/04/13 17:00	03/27/13 17:00		
Containers Supplied:				
GA-1 L Amber (Glass) (G GA-1 L Amber (Glass) (H				
Sample ID: 1C31317-14	**Water**	**Sampled:03/20/13 09:30**		
dioxins-8290	04/04/13 17:00	03/27/13 09:30		
Containers Supplied:				
GA-1 L Amber (Glass) (G GA-1 L Amber (Glass) (H				

E1300373 5
Keystone Laboratories, Incorporated
8290 Full List - Iowa Site

4/4

T Rivera 3/25/13 14:00

Released By	Date	Received By	Date
Released By	Date	Received By	Date
			3/26/13 1205

Columbia Analytical Services
Now part of the ALS Group

Cooler Receipt Form

Project Chemist: AK

Client/Project: Keystone Laboratories; 1C31317

Service Request: E1300373

Date/Time Received: 03/26/13 12:05:00

Date/Time Logged in: 03/26/13 15:44:00

Technician: AL

Technician: AL

1. Method of delivery: ○ US Mail ○ Fed Ex ◉ UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ◉ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ◉ No ○ N/A

Were they intact? ○ Yes ◉ No ○ N/A

Were they signed and dated? ○ Yes ◉ No ○ N/A

If yes, how many and where?

4. Method of delivery: ○ Inserts ☑ Baggies ☑ Bubble Wrap ○ Gel Packs ☑ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ◉ No

Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?	Filed
1Z5335251346048041		Mar 26, 2013	1205	AL	4/4	☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ◉ Yes ○ No ○ N/A

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ◉ Yes ○ No ○ N/A

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ◉ Yes ○ No ○ N/A

9. Were appropriate bottles/containers and volumes received for the requested tests? ◉ Yes ○ No ○ N/A

10. Did sample labels and tags agree with custody documents? ◉ Yes ○ No ○ N/A

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Broken	Date	Technician
			☐	☐		
			☐	☐		
			☐	☐		
			☐	☐		

Notes, Discrepancies, & Resolutions:

Print Form

Reset Form

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sample
- ✓ The COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report.

Service Request Summary

Folder #: **E1300373**
Client Name: Keystone Laboratories, Incorporated
Project Name: 8290 Full List Dioxins Furans Analysis
Project Number: 1C31317

Report To: Sue Thompson
Keystone Laboratories, Incorporated
600 East 17th Street South
Newton, IA 50208
Phone Number: 641-792-8451
Cell Number:
Fax Number:
E-mail: sthompson@keystonelabs.com

Project Chemist: Arthi Kodur
Originating Lab: HOUSTON
Logged By: ALOPEZ
Date Received: 3/26/13
Internal Due Date: 4/16/13
QAP: LAB QAP
Qualifier Set: CAS Standard
Formset: CAS Standard
Merged?: N
Report to MDL?: N
P.O. Number: 1C31317
EDD: BASIC_wMB_CASNO

6 - 1000 mL-Glass Bottle WM AMBER Teflon Liner Unpreserved

Location: E-WIC01, E-WIC01-D1

CAS Samp No	Client Samp No.	Matrix	Collected		SVM 8290/ PCDD PCDF
E1300373-001	1C31317-09	Water	3/20/13	1514	II
E1300373-002	1C31317-11	Water	3/20/13	1700	II
E1300373-003	1C31317-14	Water	3/20/13	0930	II

Folder Comments:

Level 2 and report to MRL per Sue Thompson. NB 3/27/13 Sample had a lot of silt precipitating out. Unable to separate using filtration. Too much solid to extract separately and combine extracts. Extract aqueous portion only per client. NB 3/27/13

Preparation Information Benchsheet

Prep Run#: 179549 **Prep WorkFlow:** OrgExtDioxAq-30 **Status:** Prepped
Team: Semivoa GCMS/HLEUNG **Prep Method:** Method Sep Funnel/Jar **Prep Date/Time:** 3/27/13 04:00 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Sample Description
1	E1300354-001	Clarifier Sludge 1090-2925	.01	8290/PCDD PCDF	5	Aqueous Leachate	960mL	Clear Liquid
2	E1300354-002	Filter 1090-2921	.01	8290/PCDD PCDF	7	Aqueous Leachate	958mL	Clear Liquid
3	E1300354-003	Batch Sludge 1090-2923	.01	8290/PCDD PCDF	5	Aqueous Leachate	968mL	Clear Liquid
4	E1300356-001	SRTTP INFLUENT	.01	8290/PCDD PCDF	8	Water	982mL	Brown Liquid (strong odor)
5	E1300369-001	Tank 1-01	.01	8290/PCDD PCDF	8	Water	1039mL	Clear Liquid
6	E1300373-001	1C31317-09	.01	8290/PCDD PCDF	7	Water	648mL	Light Yellow Liquid
7	E1300373-002	1C31317-11	.01	8290/PCDD PCDF	7	Water	942mL	Clear Liquid
8	E1300373-003	1C31317-14	.01	8290/PCDD PCDF	7	Water	751mL	Clear Liquid
9	E1300398-001	Tank - JC002	.01	8290/PCDD PCDF	6	Water	1057mL	Light Yellow Liquid
10	EQ1300177-01	MB		8290/PCDD PCDF	5	Liquid	1000mL	
11	EQ1300177-02	LCS		8290/PCDD PCDF	5	Liquid	1000mL	
12	EQ1300177-03	SRTTP INFLUENT MS	.01	8290/PCDD PCDF	7	Liquid	1005mL	
13	EQ1300177-04	SRTTP INFLUENT DMS	.01	8290/PCDD PCDF	7	Liquid	998mL	
14	EQ1300177-05	SRTTP INFLUENT DUP	.01	8290/PCDD PCDF	7	Liquid	949mL	
15	K1302621-001	GW 0930	.05	8290/PCDD PCDF	7	Water	1034mL	Light Orange Liquid
16	K1302621-002	GW 0931	.05	8290/PCDD PCDF	7	Water	1036mL	Clear Liquid
17	K1302621-003	GW 0932	.05	8290/PCDD PCDF	7	Water	1038mL	Cloudy Liquid
18	K1302621-004	GW 0933	.05	8290/PCDD PCDF	7	Water	1034mL	Clear Liquid
19	K1302621-005	GW 0934	.05	8290/PCDD PCDF	7	Water	1035mL	Clear Liquid
20	K1302621-006	GW 0935	.05	8290/PCDD PCDF	5	Water	1036mL	Clear Liquid

Preparation Information Benchsheet

Prep Run#: 179549 **Prep WorkFlow:** OrgExtDioxAq-30 **Status:** Prepped
Team: Semivoa GCMS/HLEUNG **Prep Method:** Method Sep Funnel/Jar **Prep Date/Time:** 3/27/13 04:00 PM

Spiking Solutions

Name:	1613B Matrix Working Standard	Inventory ID	55244	Logbook Ref:	55244 HLEUNG 3/4/13 WT WM	Expires On:	03/04/2014

EQ1300177-02	100.00µL	EQ1300177-03	100.00µL	EQ1300177-04	100.00µL

Name:	1613B Labeled Working Standard	Inventory ID	55473	Logbook Ref:	55473 HLEUNG 3/11/13 WT WM	Expires On:	03/11/2014

E1300354-001	1,000.00µL	E1300354-002	1,000.00µL	E1300354-003	1,000.00µL	E1300356-001	1,000.00µL	E1300369-001	1,000.00µL	EQ1300177-01	1,000.00µL
EQ1300177-02	1,000.00µL	EQ1300177-03	1,000.00µL	EQ1300177-04	1,000.00µL	EQ1300177-05	1,000.00µL	K1302621-001	1,000.00µL	K1302621-002	1,000.00µL
K1302621-003	1,000.00µL	K1302621-004	1,000.00µL	K1302621-005	1,000.00µL	K1302621-006	1,000.00µL				

Name:	1613B Labeled Working Standard	Inventory ID	55475	Logbook Ref:	55475 HLEUNG 3/11/13 WT WM	Expires On:	03/11/2014

E1300373-001	1,000.00µL	E1300373-002	1,000.00µL	E1300373-003	1,000.00µL	E1300398-001	1,000.00µL				

Name:	8290/1613B Cleanup Working Standard 8 ng/mL -5	Inventory ID	55873	Logbook Ref:	55873 HLEUNG 3/22/13 WT AK	Expires On:	02/05/2014

E1300354-001	100.00µL	E1300354-002	100.00µL	E1300354-003	100.00µL	E1300356-001	100.00µL	E1300369-001	100.00µL	E1300373-001	100.00µL
E1300373-002	100.00µL	E1300373-003	100.00µL	E1300398-001	100.00µL	EQ1300177-01	100.00µL	EQ1300177-02	100.00µL	EQ1300177-03	100.00µL
EQ1300177-04	100.00µL	EQ1300177-05	100.00µL	K1302621-001	100.00µL	K1302621-002	100.00µL	K1302621-003	100.00µL	K1302621-004	100.00µL
K1302621-005	100.00µL	K1302621-006	100.00µL								

Preparation Materials

Sensafe Free Chlorine WTR CHK	AL 02/15/13 (54778)	Carbon, High Purity	53538 (53538)	Ethyl Acetate 99.9% Minimum EtOAc	C2-79-2 (52060) (48043)
Glass Wool	C2-87-4 rp (51333)	Sulfuric Acid Reagent Grade H2SO4	AL 12/21/12 (53041)	Hexanes 95%	MR 3/1/13 (55218)
Dichloromethane (Methylene Chloride) 99.9% MeCl2	AL 03/26/13 (55972)	Sodium Chloride Reagent Grade NaCl	C2-65-5 (38670)	Sodium Hydroxide Reagent Grade NaOH	C2-73-7 (53023)
Sodium Sulfate Anhydrous Reagent Grade Na2SO4	C2-90-2 (52714)	Tridecane (n-Tridecane)	55438 (55438)	ColorpHast pH-Indicator Strips	C2-81-6 (50232)
Silica Gel Reagent Grade	C2-85-6 (51331)	Toluene 99.9% Minimum	AL 1/17/13 (53814)		

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	3/27/13 16:00	Started:	4/1/13 12:30	Started:	4/1/13 07:00	Started:	4/1/13 14:00
Finished:	3/28/13 11:15	Finished:	4/1/13 12:30	Finished:	4/1/13 09:00	Finished:	4/1/13 16:00
By:	WMCDONOUGH	By:	CDIAZ	By:	CDIAZ	By:	CDIAZ
Comments		Comments		Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 179549
Team: Semivoa GCMS/HLEUNG

Prep WorkFlow: OrgExtDioxAq-30
Prep Method: Method Sep Funnel/Jar

Status: Prepped
Prep Date/Time: 3/27/13 04:00 PM

Comments: _____

Reviewed By: JWP 040213 Date: _____

Chain of Custody

Relinquished By:		Date:		Extracts Examined
Received By:		Date:		Yes No