



# Specialty Analytical

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July 18, 2017

Charles Swift  
Associated Environmental Group, LLC  
605 11th Avenue SE  
#201  
Olympia, WA 98501  
TEL: (360) 352-9835  
FAX:  
RE: U-Haul-Hazel Dell/17-149

Dear Charles Swift:

Order No.: 1707044

Specialty Analytical received 3 sample(s) on 7/11/2017 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

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

Sincerely,

A handwritten signature in black ink, appearing to read "M. French". The signature is fluid and cursive, written over a white background.

Marty French  
Lab Director

# Specialty Analytical

Date Reported: 18-Jul-17

**CLIENT:** Associated Environmental Group, LLC  
**Project:** U-Haul-Hazel Dell/17-149

**Lab Order:** 1707044

**Lab ID:** 1707044-001

**Collection Date:** 7/10/2017 9:50:00 AM

**Client Sample ID:** Well-Water

**Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>NWTPH HCID</b>						
		<b>NWHCID</b>				Analyst: <b>MIS</b>
Diesel	ND	0.600		mg/L	1	7/13/2017 9:41:55 PM
Gasoline	ND	0.238		mg/L	1	7/13/2017 9:41:55 PM
Kerosene	ND	0.600		mg/L	1	7/13/2017 9:41:55 PM
Lube Oil	ND	0.600		mg/L	1	7/13/2017 9:41:55 PM
Mineral Spirits	ND	0.238		mg/L	1	7/13/2017 9:41:55 PM
Surr: BFB	52.7	30.2-133		%REC	1	7/13/2017 9:41:55 PM
Surr: o-Terphenyl	86.4	50-150		%REC	1	7/13/2017 9:41:55 PM
<b>HOLD PER CLIENT REQUEST</b>			<b>PER CLIENT</b>			Analyst: <b>kel</b>
Hold	7/18/2017	0			1	7/18/2017 8:39:15 AM

**Lab ID:** 1707044-002

**Collection Date:** 7/10/2017 10:15:00 AM

**Client Sample ID:** Well-Inside

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>NWTPH-HCID</b>						
		<b>NWHCID</b>				Analyst: <b>MIS</b>
Gasoline	ND	27.3		mg/Kg-dry	1	7/14/2017 6:08:17 AM
Mineral Spirits	ND	27.3		mg/Kg-dry	1	7/14/2017 6:08:17 AM
Kerosene	ND	68.1		mg/Kg-dry	1	7/14/2017 6:08:17 AM
Diesel	ND	68.1		mg/Kg-dry	1	7/14/2017 6:08:17 AM
Lube Oil	ND	136		mg/Kg-dry	1	7/14/2017 6:08:17 AM
Hydraulic Oil	ND	136		mg/Kg-dry	1	7/14/2017 6:08:17 AM
Surr: BFB	70.3	50-150		%REC	1	7/14/2017 6:08:17 AM
Surr: o-Terphenyl	94.7	50-150		%REC	1	7/14/2017 6:08:17 AM

# Specialty Analytical

Date Reported: 18-Jul-17

**CLIENT:** Associated Environmental Group, LLC  
**Project:** U-Haul-Hazel Dell/17-149

**Lab Order:** 1707044

**Lab ID:** 1707044-003

**Collection Date:** 7/10/2017 10:15:00 AM

**Client Sample ID:** Well-Outside

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>NWTPH-HCID</b>		<b>NWHCID</b>				Analyst: <b>MIS</b>
Gasoline	ND	28.1		mg/Kg-dry	1	7/14/2017 2:06:17 AM
Mineral Spirits	ND	28.1		mg/Kg-dry	1	7/14/2017 2:06:17 AM
Kerosene	ND	70.2		mg/Kg-dry	1	7/14/2017 2:06:17 AM
Diesel	ND	70.2		mg/Kg-dry	1	7/14/2017 2:06:17 AM
Lube Oil	ND	140		mg/Kg-dry	1	7/14/2017 2:06:17 AM
Hydraulic Oil	ND	140		mg/Kg-dry	1	7/14/2017 2:06:17 AM
Surr: BFB	66.9	50-150		%REC	1	7/14/2017 2:06:17 AM
Surr: o-Terphenyl	88.9	50-150		%REC	1	7/14/2017 2:06:17 AM

# QC SUMMARY REPORT

WO#: 1707044  
18-Jul-17

## Specialty Analytical

**Client:** Associated Environmental Group, LLC  
**Project:** U-Haul-Hazel Dell/17-149

**TestCode:** HCID\_NW

Sample ID: <b>MB-10221</b>	SampType: <b>MBLK</b>	TestCode: <b>HCID_NW</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/12/2017</b>	RunNo: <b>22181</b>						
Client ID: <b>PBS</b>	Batch ID: <b>10221</b>	TestNo: <b>NWHCID</b>		Analysis Date: <b>7/14/2017</b>	SeqNo: <b>294906</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	20.0									
Mineral Spirits	ND	20.0									
Kerosene	ND	50.0									
Diesel	ND	50.0									
Lube Oil	ND	100									
Hydraulic Oil	ND	100									
Surr: BFB	61.3		100.0		61.3	50	150				
Surr: o-Terphenyl	79.7		100.0		79.7	50	150				

Sample ID: <b>1707041-003BDUP</b>	SampType: <b>DUP</b>	TestCode: <b>HCID_NW</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>7/12/2017</b>	RunNo: <b>22181</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>10221</b>	TestNo: <b>NWHCID</b>		Analysis Date: <b>7/14/2017</b>	SeqNo: <b>294910</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	24.9						0	0	20	
Mineral Spirits	ND	24.9						0	0	20	
Kerosene	ND	62.3						0	0	20	
Diesel	ND	62.3						0	0	20	
Lube Oil	ND	125						0	0	20	
Hydraulic Oil	ND	125						0	0	20	

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 1 of 4  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1707044

18-Jul-17

## Specialty Analytical

**Client:** Associated Environmental Group, LLC

**Project:** U-Haul-Hazel Dell/17-149

**TestCode:** HCID\_NW

Sample ID: <b>1707054-003ADUP</b>		SampType: <b>DUP</b>		TestCode: <b>HCID_NW</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>7/12/2017</b>		RunNo: <b>22181</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>10221</b>		TestNo: <b>NWHCID</b>				Analysis Date: <b>7/14/2017</b>		SeqNo: <b>294913</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	21.8						0	0	20	
Mineral Spirits	ND	21.8						0	0	20	
Kerosene	ND	54.5						0	0	20	
Diesel	ND	54.5						0	0	20	
Lube Oil	ND	109						0	0	20	
Hydraulic Oil	ND	109						0	0	20	

Sample ID: <b>1707054-009ADUP</b>		SampType: <b>DUP</b>		TestCode: <b>HCID_NW</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>7/12/2017</b>		RunNo: <b>22181</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>10221</b>		TestNo: <b>NWHCID</b>				Analysis Date: <b>7/14/2017</b>		SeqNo: <b>294920</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	21.8						0	0	20	
Mineral Spirits	ND	21.8						0	0	20	
Kerosene	ND	54.5						0	0	20	
Diesel	ND	54.5						0	0	20	
Lube Oil	LUBE OIL	109						366.0	10.9	20	
Hydraulic Oil	ND	109						0	0	20	

Sample ID: <b>1707044-002ADUP</b>		SampType: <b>DUP</b>		TestCode: <b>HCID_NW</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>7/12/2017</b>		RunNo: <b>22181</b>	
Client ID: <b>Well-Inside</b>		Batch ID: <b>10221</b>		TestNo: <b>NWHCID</b>				Analysis Date: <b>7/14/2017</b>		SeqNo: <b>294923</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	27.3						0	0	20	

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 2 of 4  
 O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1707044

18-Jul-17

## Specialty Analytical

**Client:** Associated Environmental Group, LLC

**Project:** U-Haul-Hazel Dell/17-149

**TestCode:** HCID\_NW

Sample ID: <b>1707044-002ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>HCID_NW</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>7/12/2017</b>	RunNo: <b>22181</b>						
Client ID: <b>Well-Inside</b>	Batch ID: <b>10221</b>	TestNo: <b>NWHCID</b>	Analysis Date: <b>7/14/2017</b>	SeqNo: <b>294923</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mineral Spirits	ND	27.3						0	0	20	
Kerosene	ND	68.1						0	0	20	
Diesel	ND	68.1						0	0	20	RF
Lube Oil	ND	136						0	0	20	RF
Hydraulic Oil	ND	136						0	0	20	

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1707044

18-Jul-17

## Specialty Analytical

**Client:** Associated Environmental Group, LLC

**Project:** U-Haul-Hazel Dell/17-149

**TestCode:** NWTPHHCID\_W

Sample ID: <b>MB-10212</b>	SampType: <b>MBLK</b>	TestCode: <b>NWTPHHCID</b>	Units: <b>mg/L</b>	Prep Date: <b>7/11/2017</b>	RunNo: <b>22185</b>						
Client ID: <b>PBW</b>	Batch ID: <b>10212</b>	TestNo: <b>NWHCID</b>	<b>HCID_W</b>	Analysis Date: <b>7/13/2017</b>	SeqNo: <b>294945</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	0.630									
Gasoline	ND	0.250									
Kerosene	ND	0.630									
Lube Oil	ND	0.630									
Mineral Spirits	ND	0.250									
Surr: BFB	0.489		1.000		48.9	30.2	133				
Surr: o-Terphenyl	0.816		1.000		81.6	50	150				

**Qualifiers:** B Analyte detected in the associated Method Blank  
O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
S Spike Recovery outside accepted reco

## KEY TO FLAGS

Rev. May 12, 2010

- A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
- A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
- A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
- A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4 The product appears to be aged or degraded diesel.
- B The blank exhibited a positive result great than the reporting limit for this compound.
- CN See Case Narrative.
- D Result is based from a dilution.
- E Result exceeds the calibration range for this compound. The result should be considered as estimate.
- F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- G Result may be biased high due to biogenic interferences. Clean up is recommended.
- H Sample was analyzed outside recommended holding time.
- HT At clients request, samples was analyzed outside of recommended holding time.
- J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
- K Diesel result is biased high due to amount of Oil contained in the sample.
- L Diesel result is biased high due to amount of Gasoline contained in the sample.
- M Oil result is biased high due to amount of Diesel contained in the sample.
- MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI Result is outside control limits due to matrix interference.
- MSA Value determined by Method of Standard Addition.
- O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
- Q Detection levels elevated due to sample matrix.
- R RPD control limits were exceeded.
- RF Duplicate failed due to result being at or near the method-reporting limit.
- RP Matrix spike values exceed established QC limits; post digestion spike is in control.
- S Recovery is outside control limits.
- SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
- \* The result for this parameter was greater than the maximum contaminant level of the TCLP regulatory limit.

